

# City of Sonoma 2014 Water Rate Study November 17, 2014

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**SPILMAN & Associates Municipal Consulting Services** 

# City of Sonoma 2014 Water Rate Study

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# 2014 Water Rate Study Table of Contents

		Page
Summary		5
Water Syste	em Sources and Users	12
Current and	Projected Water System Costs	18
Recommend	ded Rates and Charges	22
	List of Tables	
Table A	Summary of Proposed Rate Changes	30
Table B	Water System Sources & Uses Summary	32
Table 1	Projected Revenue from Rates	33
Table 2	Summary of Water System Cost	34
Table 3	Water Debt Issues	35
Table 4	Capital Improvement Projects	36
Table 5	Historical Water Use	37
Table 6	Water Use by User Type and Use Ratios	38
Table 7	Water Use by Meter Size	39
Table 8	Meter Capacity Equivalent	40
Table 9	Water Production by Fiscal Year	41
Table 10	Allocation of Operations and Debt costs between Fixed Monthly	42
	Service Charges and Variable Volume Charges	
Table 11	Monthly Service Charge Calculations for FY 14-15 to FY 18-19	44
Table 12	Variable Volume Rate Calculations for FY 14-15 to FY 18-19	50
Table 13	Single Family Residential Water Conservation Usage Analysis and Options	52
Table 14	Multi-Family and Commercial Conservation Usage Analysis	56
Table 15	Examples of Residential, Multi-family and Commercial rate changes	58
Table 16	Connection Fee Update	61

# **Appendix**

		Page
•	Resolution 46-2007 Water Rate and fee increases for the period 2008 through 2012	63
•	Resolution 28-2014 Schedule of User Fees, Licenses & Permit Charges	70
•	State of California Government Code Section 53755 and 53756 – Changes to Rates	72
•	Draft of City of Sonoma Resolution to adopt rate changes per 2014 Water Rate Study	73
•	Draft of 45-Day Public Notice for Public Hearing on Rate changes	81
•	Resolution 56-2014 Water Rate and Fee increases for the Fiscal Year 2014-15 through 2018-2019 and setting water rates and connection fees to be effective January 1, 2015 and each January 1 <sup>st</sup> thereafter to January 1, 2019	83

# 2014 Water Rate Study

# Analysis and Projections of Water System Costs, Improvements and Revenue Needs For Fiscal Years 2014-15 through 2018-19

# Summary

In December 2007, the City of Sonoma adopted Resolution 46-2007 which implemented the water rate recommendations of the 2007 Connection Charge and Rate Study by John Olaf Nelson Water Resources Management (Nelson). The last rate change under this resolution was effective February 1, 2012.

In 2010, a 2010 Water Supply Plan and Water Rate and Connection Charge Study was completed by Nelson and provided the City with a comprehensive water system review and strategies for water supply conservation and management. The 2010 study also recommended rate changes to FY 17-18 to fund projected operations, recommended capital improvements, conservation and water supply programs, and debt issue to fund improvements.

In 2012, an update to the 2010 Study was provided by Nelson with revised and alternative recommended rate changes. Public notices were sent to the property owners and tenants for a formal public hearing to consider the water rate changes. After a presentation by City staff and comments from the public, the City Council voted not to implement the recommended rate changes.

In the summer of 2013, the Public Works Director presented an overview of the water system to the City Council and the current issues with water supply, conservation programs, capital improvement needs and ongoing operations. The Director recommended that an updated water rate study be developed to focus on operations and capital improvement financial projections over the next five years assuming greater drought and conservation impacts. In addition, to also provide a review of the conservation tier rate structure for the current residential accounts and develop an application to multi-family and commercial accounts.

# **Water Rate Study Review Process**

Over the last several months, city financial and water use data has been analyzed and worksheets developed to generate the necessary tables for a rate study. Several meetings have been held with staff to discuss the findings and develop options for recommended rate structure and rate changes.

The 2014 Water Rate Study is designed with a financial approach to implement multiyear changes to the existing water rates to fund operations, capital improvements, debt and maintain an adequate operating reserves and required debt ratio coverage. In addition, it is designed to develop options for enhancing the existing residential conservation rate tiers and establishing new multi-family and commercial conservation rate tiers.

Water rate studies are often complicated and controversial. The different elements that are needed to meet best practices and industry standards in a rate study can be difficult for staff, policy makers and the community to understand. The challenge is to simplify and summarize all of that complexity in the rate study without distortion or loss of meaning.

The goal is to provide a water rate study that is both simple to understand and yet complex enough to fairly and equitability allocate the costs of the water system to the users. It is further complicated in addressing sources of supply, conservation of resources, repair and maintenance of the equipment and infrastructure. Another factor is to provide financial stability in the revenues to operate the water system and keep the rates charged to the ratepayers as low as possible and annual increases to a minimum. There are also other requirements to comply with State Law in allocating costs and the process to review in public meetings and adopted.

On August 25, 2014, summary charts from the 2014 Rate Study were presented to the City Council at a special study session. The presentation addressed the following:

- Financial objectives of the rate study,
- Assumptions use to project water use and costs
- Reviewed several charts on projected costs and water use

- Reviewed charts on recommended Service and Use charges
- Provided examples of the rate changes to different users
- Addressed Single Family, Multi-Family and Commercial Conservation rate incentives

# Review of the Nelson 2010 Water Rate Study and 2012 update

The Nelson rate studies in 2010 and update in 2012 were reviewed and used to understand the current rates structure and a perspective on projecting rate increases. The overall project approach was to use the 2010 Nelson Water Rate Study data, as needed, to generate a current and more accurate projection of rate increases needed to meet the financial objectives.

Certain water use and financial assumptions in the Nelson rate studies are no longer valid for projected in water use, capital improvements or operations. Actual Operating costs have been reduced. The scope, costs and implementation schedule of projected capital improvement projects have been revised. In addition, due to the current and projected drought conditions, the Sonoma County Water Agency has developed different approaches to future improvements and delivery of water to the participating agencies.

In addition, the City Council has expressed an desire to review the conservation incentives in programs and the rate tier structure to encourage reduced water use of all water users.

# **Financial Objectives and Assumptions**

The financial objectives for the 2014 Water Rate Study are:

- Use a Finance Approach for rates and financial stability
- Uses the 2007 adopted, 2010 considered and 2012 update Water Rate studies for basic structure
- Determine a fair and equitable allocation of water system costs to ratepayers
- Comply with State law in review and adoption
- Address concerns on:
  - Conservation rate incentives for all major users residential, Multi-family and Commercial
  - Allocation of costs to various users
  - Sources of supply wells
  - Maintenance and replacement of water system
- Recommend Adjustments to:

- Insure greater financial stability in rates, operating reserves and needed replacement
- Provide funding of Capital Improvements to maintain water system with through new developments, financing and grants
- Reallocate costs to different user groups based on updated use of water system
- Improve conservation rate incentive for Single Family residential with additional tier structure
- Create conservation rate incentives for Multi-Family and Commercial

The general assumptions used in the 2014 Water Rate Study are:

- Five-year period from FY14-15 to FY 18-19, with future annual CPI adjustments
- Projected:
  - Operating costs at 3% to 3.5%
  - Sonoma County Water Agency (SCWA) costs at 4%
  - An updated Capital Improvement Schedule & Costs recommended by Public Works Director
  - Overall water use declining by 8% due to conservation
- Current rate structures remain the same with certain exceptions to realign cost allocations
- Single Family Residential conservation rate structure adjusted to improve incentives
- Addition of conservation rates for Multi-Family and Commercial

### 2014 Water Rate Study Recommendations

The recommended rates are projected to provide for funding of operations, capital improvements, debt service, debt reserves and available working capital over the next five years. Additional funding sources for capital improvements will come from current working capital, connection fees and a \$2 million debt issue.

The projections are based on current assumptions of cost increases, conservation use and minimal development projections. Over the next five years a positive operating cash flow, a 25% operating reserve, required debt reserve and compliance with the debt ratio requirements under current financing agreements are projected. Additional details to the summary recommendations below can be found in **Table A** of the rates for each type of user and the recommended conservation tiers and rates. **Table B** provides a summary of the water system revenues and expenses.

In summary, the recommendations of the 2014 Water Rate Study are:

- Monthly service charges based on meter size increase by \$5.40 per month in five years for typical residential meter
- Water use charges increase by 24% or \$1.23 per 1,000 gallons of water use in five years to cover projected cost increases.
- Added Single Family 4<sup>th</sup> Conservation Tier and adjusted conservation rates higher to encourage conservation
- Created a new Multi-family and Commercial three tier conservation rate structure
- Range of annual base rate increases:
  - Fixed Service Charge 2.3% to 14.2%
  - Water Use Base Charge 2.5% to 5.8%
- Range of annual monthly bills to typical single family 3% to 7% for average of 5.4% per year
- Increase in new, changed or expanded development one-time connection fees by 22% to catch up in construction cost increases since 2007 and annual adjustments to keep up with cost increases
- And provides for annual service and volume rate adjustments from January 1,
   2020 based on San Francisco Bay area Consumer Price Index percent change

Below is a summary of the recommended changes in the monthly service charges based on the account meter size. The 5/8,  $\frac{3}{4}$  and 1 inch meters are typical of residential accounts:

Service Charge by Meter Size	_	urrent Y 13-14	F	Y 14-15	F`	Y 15-16	dopted Y 16-17	F	Y 17-18	F	Y 18-19
5/8" & 3/4" Meter	\$	15.35	\$	17.10 11%	\$	17.33 1%	\$ 19.79 14%	\$	20.28	\$	20.75 2%
1" Meter	\$	18.42	\$	17.10 -7%	\$	17.33 1%	\$ 19.79 14%	\$	20.28 3%	\$	20.75 2%
All Other Meter Sizes and Fire Line meters				6.1%		1.3%	14.2%		2.5%		2.3%

Below is a summary of the recommended changes to the Single Family residential accounts. The current Tier 2 has been split to create a four tier conservation rate structure. This will allow for a greater range of rates to enhance conservation. The increases in the rates for Tiers 1 and 2 have been are lower and Tiers 3 and 4 are higher.

Use Charge by Water Use	1	urrent 13-14	FY	′ 14-15	FY	′ 15-16	lopted / 16-17	FY	′ 17-18	FY	′ 18-19
Base Rate per Thousand Gallons (Kg)	\$	5.10	\$	5.23	\$	5.43	\$ 5.74	\$	6.07	\$	6.33

			2%	4%	6%	6%	4%
Single Family With Adde	d Conser	vati	on Tier				
Tier 1 - 1 - 6 Kg	\$3.59	\$	3.59	\$ 3.73	\$ 3.94	\$ 4.17	\$ 4.35
			0%	4%	6%	6%	4%
Tier 2 - 7 - 12 Kg	\$6.11	\$	6.30	\$ 6.55	\$ 6.91	\$ 7.31	\$ 7.63
			3%	4%	6%	6%	4%
Tier 3 - 13 - 18 Kg	\$6.11	\$	7.07	\$ 7.35	\$ 7.76	\$ 8.21	\$ 8.56
_			16%	4%	6%	6%	4%
Tier 4 - 19 + Kg	\$7.63	\$	10.21	\$ 10.62	\$ 11.22	\$ 11.86	\$ 12.38
_			34%	4%	6%	6%	4%

A new Multi-Family conservation rate tier structure has been developed to encourage conservation. It is also recommended to lower the use factor to reflect the impact of multi-family users to the water system

Use Charge by Water Use	 urrent 13-14	FY	′ 14-15	FY	′ 15-16	lopted ′ 16-17	FY	′ 17-18	FY	′ 18-19
Multi-Family										
Use Factor	0.90		0.85		0.80	0.80		0.80		0.80
Multi-Family Rate	\$ 4.59	\$	4.44	\$	4.35	\$ 4.59	\$	4.86	\$	5.07
			-3%		-2%	6%		6%		4%
Tier 1 - 1 - 26 Kg	\$ 4.59	\$	4.13	\$	4.04	\$ 4.27	\$	4.52	\$	4.71
			-10%		-2%	6%		6%		4%
Tier 2 - 27 - 78 Kg	\$ 4.59	\$	4.71	\$	4.61	\$ 4.87	\$	5.15	\$	5.37
			3%		-2%	6%		6%		4%
Tier 3 - 79 + Kg	\$ 4.59	\$	4.96	\$	4.85	\$ 5.12	\$	5.42	\$	5.65
_			8%		-2%	6%		6%		4%

A new Commercial conservation rate tier structure has been developed to encourage conservation. It is also recommended to increase the use factor to better reflect the impact of commercial users to the water system.

Use Charge by Water	Cı	ırrent					Ac	dopted				
Use	FY	13-14	FY	′ 14-15	F۱	FY 15-16 FY 16-17		F۱	FY 17-18		′ 18-19	
Commercial												
Use Factor		1.00		1.05		1.10		1.15		1.15		1.15
Commercial Rate	\$	5.10	\$	5.49	\$	5.98	\$	6.60	\$	6.98	\$	7.28
				8%		9%		10%		6%		4%
Tier 1 - 1 - 25 Kg	\$	5.10	\$	5.21	\$	5.68	\$	6.27	\$	6.63	\$	6.92
				2%		9%		10%		6%		4%
Tier 2 - 26 - 61 Kg	\$	5.10	\$	5.49	\$	5.98	\$	6.60	\$	6.98	\$	7.28
				8%		9%		10%		6%		4%
Tier 3 - 62 + Kg	\$	5.10	\$	5.99	\$	6.53	\$	7.21	\$	7.63	\$	7.96
				18%		9%		10%		6%		4%

The rates for Municipal, Irrigation and Fire line/Hydrant users are based on the changes in the Base Water Use Rate.

# 2014 Water Rate Study Process to Adopt and Implement Rate Changes

State law mandates how changes to rates and fees must be reviewed, public notice information on the changes, timing of the hearings and changes and how the City Council can adopt the changes. The City Council will consider adopting procedures to implement the State law.

On August 25, 2013, the City Council held a public workshop to consider options and provided direction to staff on the recommendations and options presented.

A City Council public hearing was set for August 29, 2014 to review the changes to the , hear public comments, consider the recommendations and authorize issuance of a public notice mailed to all utility bill customers and property owners for a formal public hearing. The public notice for a formal public hearing on the recommended rate changes can be held no sooner than 45 days from the public notice mailing. The public notices are scheduled to be mailed by October 3<sup>rd</sup> and the public hearing to be held on November 17, 2014.

The 2014 Water Rate Study will be made available for public review during the 45-day notice period.

Proposition 218 requires the City to comply with substantive and procedural requirements in section 6 of Article XIIID of the California Constitution for imposing or increasing fees on any parcel of property or person as an incident of property ownership. These procedures apply to utility rate increases. The City Council will consider a resolution of the procedures for establishing and increasing fees and charges under Proposition 218.

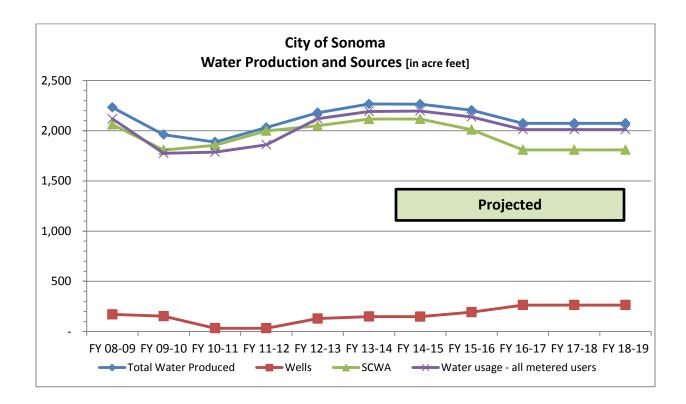
# Water System Sources and Users

The City's water sources are from the Sonoma County Water Agency (SCWA) Aqueduct and wells. The City's water system is a complex system of gravity, pumps, pipes and tanks to distribute water to residences and businesses.

The method of measuring water production is in acre-feet of water. The method of measured water use through water meters is by 1,000 gallons (referred to as 1 unit of water). Below is a chart that shows the equivalents to these different methods of measurement that will be used throughout this rate study.

43,560 square feet is one acre
325,829 gallons in volume one acre one foot deep
892.7 gallons per day over 1 year in volume

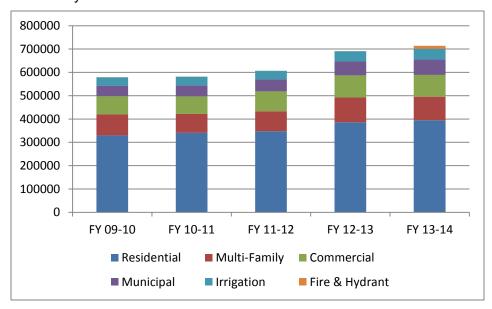
Due to the drought and increased conservation, overall water production is projected to decrease by 8% over the next three years with a projected annual water savings of 192 acre feet or 62.6 million gallons. Below is a graph showing the water production over the last several years and projections over the next five years to FY 18-19:



Water from SCWA is projected to decrease by 15% over the next three years to 1,809 acre feet. The City existing wells and new well are projected to increase production by 77% to 264 acre feet.

### How the water is used

The user data for the 2014 Rate Study was updated from utility billing actual use over the last several years. The total water use by all water users has been increasing over the last three years in most all user types. Below is a chart showing the comparisons over the last five years.



The total active water accounts as of June 2014 are 4,206 connections through various sizes of water meters. The size of water meter reflects the type of use and the calculated demand for water. A typical residential account has a 5/8", 3/4" or 1" meter. Public Works has set the future standard for residential accounts as a 1" meter. Below is a summary chart showing the different types of accounts and meter sizes.

	User # and Type	Total Accounts	Total Users per Accounts
2,12	Residential	3,475	3,491
6,16	Multi-Family	276	2,030
1,11	Commercial	303	711
5,15 3,13	Municipal Irrigation	69 83	153 83
Total		4,206	6,468

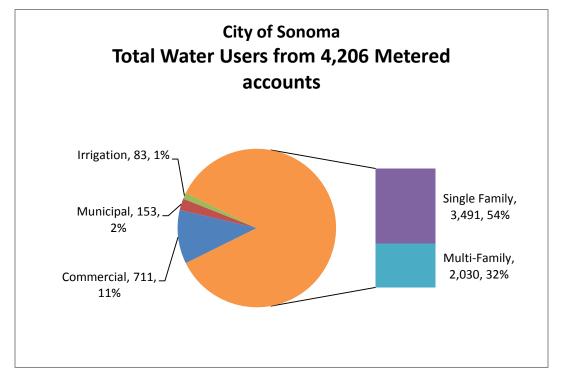
		Account	ts by Met	er Size		
5/8, 3/4, 1	1.5	2	3	4	6	Total
3,448	21	5	1	0	0	3,475
232	28	12	4	0	0	276
226	40	33	3	0	1	303
41 47	0 15	16 18	7 2	4 1	1 0	69 83
3,994	104	84	17	5	2	4,206

Fire Lin	Fire Line Meter Sizes				4	6	8	10	Hyd	Total
11,4,14	Fire Line & Hydrant	144	144	9	57	47	14	4	13	144

The number of users per each metered account reflects the additional multi-family living units or commercial units. Below is a chart similar to the chart above that shows the number of users per each metered account by meter size.

		Total	Total Users	Users by Meter Size									
	User # and Type	Accounts	per Accounts	5/8, 3/4, 1	1.5	2	3	4	6	Total			
2,12	Residential	3,475	3,491	3,464	21	5	1	-	-	3,491			
6,16	Multi-Family	276	2,030	1,706	206	88	29	-	-	2,030			
1,11	Commercial	303	711	530	94	77	7	-	2	711			
5,15	Municipal	69	153	91	-	35	16	9	2	153			
3,13	Irrigation	83	83	47	15	18	2	1	-	83			
Total		4,206	6,468	5,838	336	224	55	10	5	6,468			

Total users, in addition to meter accounts, is a better reflection of the use of the water and demands on the water system for calculations of meter capacity (see **Table 8**) and use ratios (see **Table 6**). Below are charts that show the different users of the water system and the use of water:

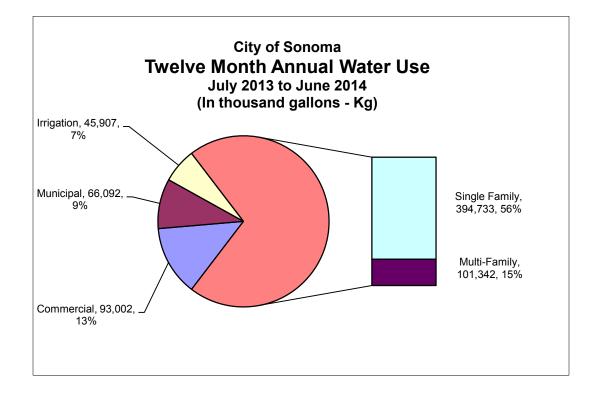


Single and Multi-family residential users are 86% of the total users in of the water system and use 71% of the water. Commercial users, which include mobile home parks,

make up the next largest user category at 13%. Below is chart that shows the last three years and distribution of water use.

	FY 11-12	FY 12-13	FY 13-14	% Change from prior year	% of Total
Residential	347,878	385,643	394,733	2%	56%
Multi-Family	85,387	106,400	101,342	-5%	14%
Commercial	84,926	94,881	93,002	-2%	13%
Municipal	51,380	59,501	66,092	11%	9%
Irrigation	36,458	43,926	45,907	5%	7%
Total	606,029	690,351	701,076		100%
Annual % change	4.2%	13.9%	1.6%		
Fire & Hydrant	36	35	13,093		

The Fire lines and Hydrant meters and use are separated from the other users for FY 13-14 due to the high use in that year. Including this amount in the rate calculations for the other users would distort the results in this rate study. The Fire and Hydrant rates will use the Irrigation rates similar to the current rate structure.



In FY 13-14, an average single family residence used 113,072 gallons per year. The water use by all accounts and users for was 701 million gallons, excluding unusual Fire line and Hydrant use. The usage by type and users can be used to determine the use or demand of the water system, which has been used in the past to allocate the costs to those users based on their demand on the water system.

The largest user group is Single Family residential and typically is fixed as the standard for the use ratio calculations. The uses of all other user groups are a ratio of use to Residential. The use of the actual calculated ratios is not appropriate due to anomalies and comparability in the actual type and definition of users. However, it is an good indicator of impact to the system by the different user groups. Another consideration is not changing the ratios too dramatically between user groups, which may cause unintended impacts to the groups and stability of the rate structure.

It is recommended that the use ratios be adjusted from the current ratios by lowering the Multi-Family from .9 to .8 and increasing the Commercial from 1.0 to 1.15. The Municipal and Irrigation ratios are recommended to remain the same as current. The recommended changes are also recommended to be applied over the two to three years to keep the rate changes more stable. In addition, as discussed below, the recommended new conservation tiers for Multi-family and Commercial will also have an impact to the rates to those user groups.

	FY 13-14	Total Users per Accounts	Average Annual Use in Kg	Current Use Ratios	Proposed Use Ratios
Residential	394,733	3491	113	1.00	1.00
Multi-Family	101,342	2030	50	0.90	0.80
Commercial	93,002	711	131	1.00	1.15
Municipal	66,092	153	432	1.01	1.00
Irrigation	45,907	83	553	1.32	1.32
Total	701,076	6,468	<del>-</del>		

### Projected Growth in water system use

There is minimal growth projections assumed in this rate study. The projection is for less than 10 equivalent single family dwelling units (ESD) per year over the next five years. This is reflected in the projection of connection fee revenues. Due to the low development projection, no additional water use is projected for rate calculations. This is a very conservative development and financial stability approach, which will reduce any negative impacts of development delays to the projected revenues and rates. The recommended rates are not based on anticipated new development. This insures that the user rates are set at an adequate level to allow for variations in growth, and still provide necessary revenues to operate the water system.

There are currently planned, and unplanned, residential and commercial developments over the next five years. As the developments are considered, approved and completed, the impact to the water system will mainly be the ability to serve and, with the recommended change in the connection fees, new development will contribute a greater portion of the cost to improve the water system and provide water service.

# **Current and Projected Water System Costs**

### Sources and Uses - Cash flow

The recommended rates, connection fees are projected to provide for adequate funding of operations, capital improvements, debt service, operating and rate stability reserves, required debt reserves and maintain available working capital to FY 18-19, based on current assumptions and conservative minimal growth projections. The projection of cash flow more than meets the debt ratio requirements under various financing agreements. Below is a summary of the projections:

Water Sources & Uses	Current			Projected		
Water Sources & Uses	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
Revenues						
From Rates	4,652,044	4,621,558	4,753,044	4,889,586	5,136,984	5,336,464
Connections	160,831	100,000	100,000	100,000	100,000	100,000
Grants & Loans	179,238	295,000	2,000,000	-	-	-
Other	81,437	82,500	82,500	82,500	82,500	82,500
Total Sources	5,073,550	5,099,058	6,935,544	5,072,086	5,319,484	5,518,964
% Rate Revenue Change		-1%	3%	3%	5%	4%
		1%	36%	-27%	5%	4%
Expenditures						
Net Operations	4,125,969	4,273,796	4,328,868	4,301,011	4,442,569	4,589,153
Improvements	791,234	2,502,000	2,135,350	1,020,000	470,000	1,470,000
Debt Payments	262,057	121,085	123,648	258,905	261,272	261,292
Total Uses	5,179,260	6,896,881	6,587,866	5,579,916	5,173,841	6,320,445
% Operations change		4%	1%	-1%	3%	3%
		33%	-4%	-15%	-7%	22%
Ending Balance	6,698,496	4,900,672	5,248,350	4,740,520	4,886,162	4,084,681
Reserves	1,357,970	1,857,083	2,021,792	2,028,482	2,088,611	2,145,205
Working Capital	5,340,525	3,043,590	3,226,559	2,712,038	2,797,552	1,939,476
Debt Ratio	2.3	3.6	4.1	2.6	3.0	3.2

See **Table B**, for a more detailed overview of cash flow projections. The operating expenses are projected to increase by 10% from FY 14-15 to FY 18-19. Operating costs were reviewed and labor increases were projected at 3% annually over the next five years. Services and supply costs are projected at 3.5% per year and the Sonoma County Water Agency costs at 4% per year. See **Tables 1** through **4** for a more detailed review of projected water system revenues from rates, operating costs, debt payments and capital improvement projects.

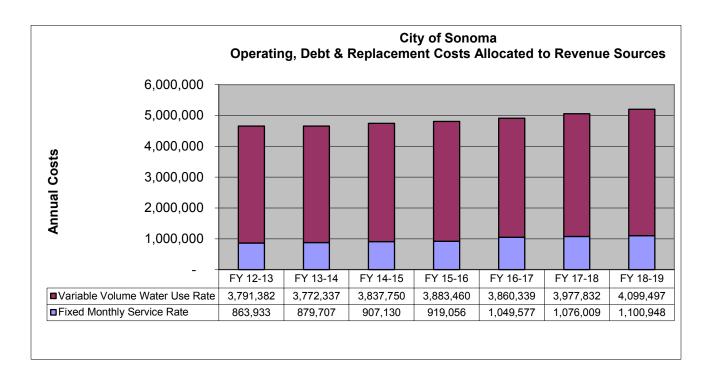
A major cost to the water operations is the purchase of water from the Sonoma County Water Agency (SCWA). The projected annual SCWA wholesale rate increase is 4% based on current information and projections from the SCWA. The actual rates will likely be different and, with the continuing drought conditions, increase at a greater rate. Instead of projecting a higher annual rate increase for SCWA that would increase recommended rates to the rate payers, it is recommended to use Government Code Section 53756 that allows for changes in the wholesale water costs to be pass through to the rate payers on an annual basis and in a simpler manner than a rate change process.

The Debt payments include a projected new debt issue of \$2 million in FY 15-16 to fund the capital improvement projects. This new issue will increase the annual debt payments by an estimated \$138,000 (see **Table 3** for more information). The actual issuance of the debt will be reviewed at the appropriate time by city staff and considered by the City Council in a separate action. Past financing agreements have been made with Private bond holders to borrow funds for capital improvements and repay the loans from rates. These agreements require the City to maintain a minimum level of reserves and revenues with rates sufficient to operate the system and repay the debt (also known as "debt coverage" or "debt ratio"). The recommended rates will provide revenues that meet or exceed the required minimum debt ratio of 1.2 for the financing agreements on an average of 3.28 over the next five years.

During the next five years, along with miscellaneous repair and maintenance improvements to the water system, there are \$7.6 million in capital improvements that will be needed for water mains, service lines, wells and other improvements (see Table 4 for more details).

### Allocation of Costs between Fixed and Volume Rates

**Table 10** shows the allocation of costs between the fixed monthly service charge and the volume charge by the amount of water used. Portions of the operating costs are funded from other sources, such as interest earnings, sale of property and other revenues. The remaining portions of operating costs are then allocated between fixed and volume charges. The graph below shows where the rate revenues come from to pay for the water system costs. In general, an estimated 20% of the costs are funded from the monthly service charge and 80% from use charges.



A fixed monthly Service Charge, based on meter size, is a typical type of fixed rate that is applied to all accounts. It is used to insure that a stable amount of revenue is generated regardless of the amount of water that is actually used. This revenue is used to pay for various fixed costs, such as debt payments, insurance and contractually required payments. In addition, the revenues are used to maintain a minimum level of maintenance and operations to ensure that the water system is operational at all times for fire protection and customer use. See **Table 11** for details on the Service Charge rates.

The annual cost of the water system related to fixed costs, described above, is estimated at 20%. The fixed monthly service charge is based on the meter size and the base rate is calculated on the standard 5/8", 3/4" or 1" residential meter. The rates for larger meters are calculated as ratio of the meter capacity relating to the residential meters. The current ratios continue to be applied to the recommended rates. The Fire Line meters are considered standby meter accounts and are charge a reduced monthly service charge.

The remaining 80% of allocated costs are to be recovered from volume charges based on the amount of water used. These costs are divided by the projected amount of water used during the year to create a base rate per 1,000 thousand gallons of water used.

The Base rate is further adjusted for each of the user groups by and use factor and conservation rate tier structures. See **Table 12** for details on the User Charge rates.

# Recommended Rates and Charges

The costs of the Water system are funded from several sources. Below is a summary matrix of the types of costs and typical funding sources.

Costs
Operations
Capital Improvements
Loan Payments
Working Capital
Reserves

Ratepayers	Connection Fees To New Development	Grants	Loans
X			
Х	X	Х	Х
X	X		
Х	X		
X	X		

Revenues

**Table A** details the proposed rate changes for all types of users over the next five years to January 2019. As discussed above, the water rates have two different types of charges. A flat monthly Service Charge is based on the size of the water meter and type of user. A variable volume charge per 1,000 gallons of water used is modified by the use factor for different user groups. In order to promote water conservation, single-family, multi-family and commercial users have conservation tiers a rate structure to encourage conservation.

The increases in the rates will average around 6% for the fixed charges and 5% for volume charges annually over the next five years. The impact of the volume or use rate changes will be based on the amount of water used by each type of user.

**Table 11** details the Service Charge calculation for each of the next five years to January 2019. The calculations of the rates are based on the meter size. Each of the annual calculations starts with the net amount needed to be recovered from fixed costs from **Table 10**.

Table 12 details the variable volume or use charge calculation based on the projected water use over the next five years to January 2019. This is a simpler calculation that is based on the total costs to be recovered from variable volume charges divided by the total projected use from all users. The volume rate is then applied to the projected water use by each type of user. Each of the annual calculations starts with the net amount needed to be recovered from variable costs from Table 10 and applies a rate stabilization adjustment, as needed, to smooth out the annual rate changes and still meet the cash flow needs of the water system. The variations in applying the use factor to the base rate generates a small additional amount the estimated revenues generated from the rates and is used to smooth out the revenue estimates. A summary of the recommended rate changes is included in the Summary section of this study.

# **Single Family Conservation Tiers**

As discussed above, a conservation three tier rate structure is currently applied to all single-family users. These types of conservation tiers and rates are typical in many water agencies.

One of the objectives of the City Council is to increase the use of water conservation by changing the tier rates and or structure. Three options were developed and reviewed with the City Council at the August 25, 2014 study session. Two of the options maintained the three tier structure and made changes in the rates for each tier. The last option split Tier 2 and created a four tier structure, which allowed for greater flexibility in applying conservation rate incentives with lower rate increases in first two tiers and higher increases in the last two tiers. At the August 25<sup>th</sup> study session, the City Council directed staff to revise the options with increased conservation incentives.

Below is a summary of the users and water use in each of the current and recommended tiers:

Current Conservation Tiers							
	Units per Mth	Accounts	Water Use in Units				
Tier 1	0 to 6	1,449	66,612				
		42%	17%				
Tier 2	7 to 18	1,747	233,517				
		50%	59%				
Tier 3	19+	279	94,595				
		8%	24%				
Totals		3,475	394,724				

	Adopted	Conservation	Tiers
	Units per Mth	Accounts	Water Use in Units
Tier 1	0 to 6	1,449	66,612
		42%	17%
Tier 2	7 to 12	1,267	145,336
		37%	37%
Tier 3	13 to 18	480	88,181
		14%	22%
Tier 4	19+	279	94,595
		8%	24%
Totals		3,475	394,724

It is recommended to split the current Tier 2 to provide more flexibility in applying conservation rates and improving the incentive to conserve water. **Table 13** shows how the current annual water use for Single Family residential accounts applies to each of the current conservation tiers. In addition, three options were developed to maintain or improve conservation.

**Option A** – This option maintains the current three tier structure and increases the current rates in each tier by 7%. This increase is greater than the base user rate increase for FY 14-15 of 2.5% due need to keep the average of all conservation rates very close to the base rate. The current rates average 4.1% less than the current base rate, which needs to be corrected. This option does not improve the current conservation structure or enhance incentives.

**Option B** – This option also keeps the three tier structure, but increases rates in each tier different to improve conservation incentives. The Tier 1 rate is increased only 2.5%, the same as the base user rate is recommended to increase in FY 14-15. The Tier 2 rate is increased 7.6% and Tier 3 increased by 18.6%.

**Option C** – This recommended option splits the current Tier 2 and creates a four tier structure. The Tier 1 rate has a zero increase from the current rate. The Tier 2 rate is increased by 3.1%. Both of these tiers include 78% of the residential accounts and 54% of the water used. Tier 3 has a rate increase of 15.6% and Tier 4 rate increase is 33.9%. Both of these tiers include 22% of the residential accounts and 46% of the water use. The recommendation for four tiers is to provide greater flexibility in applying conservation rates that better separates the accounts with the highest water use. Below is a summary of this recommended rate structure and the first year rate changes.

Adopted Four Tier Conservation Rates								
	Current Range	Current Rate		Adopted Range	Adopted Rate	% Change		
Base Rate	_	5.10		_	5.23	2.5%		
Tier 1	0 to 6	<b>3.59</b> 70%	Tier 1	0 to 6	<b>3.59</b> 69%	0%		
Tier 2	7 to 18	<b>6.11</b> 120%	Tier 2	7 to 12	<b>6.30</b> 120%	3%		
			Tier 3	13 to 18	<b>7.07</b> 135%	16%		
Tier 3	19+	7.63	Tier 4	19+	10.21	34%		
		150%			195%			

The conservation rate tier structure applies the rates in "waterfall" method for the water used in each tier. For example in the recommended four tier structure, if a residential account uses 15 units of water during the month, the first 6 units are charged at the Tier 1 rate of \$3.59 per unit, the next 6 units of water is charged the Tier 2 rate of \$6.30 per unit and the last 3 units are charged the Tier 3 rate of \$7.07 per unit. This means that all residential accounts being charged for water used in each tier and as they increase the water use and spill over to the next tier, they pay a higher rate for the water used.

Because of the higher rates in Tiers 3 and 4, an analysis was done to project the effect of the rates on water conservation and identify the potential revenue reduction. For example, if water use in these tiers were reduced by 20% or 14.6 million gallons, then the net annual revenue reduction is estimated at 2% of all use revenue or \$88,000. However, the base rates for water

use are projected over the next three years with an overall reduction in water use of 8% or 57 million gallons, so the impact of significant residential conservation to the revenues is mitigated by a conservative projection of water use.

Below are examples of the recommended Single Family residential Conservation Tiers

Single Family example of average monthly water bill - both Service Charge and Use Charge									
	Current Rates	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	5 yr %		
Low use	\$ 49.11	\$ 51.24	\$ 52.81	\$ 57.27	\$ 59.93	\$ 62.11			
8 units per month		4%	3%	8%	5%	4%	26%		
Mid Use	\$ 79.66	\$ 83.49	\$ 86.35	\$ 92.68	\$ 97.40	\$101.20			
13 Units per month		5%	3%	7%	5%	4%	27%		
High Use	\$133.10	\$149.47	\$154.94	\$165.12	\$174.03	\$181.13			
21 Units per month		12%	4%	7%	5%	4%	36%		

The percentages below each of the totals are the effective increase of <u>both</u> the Service and Use rate changes and the average water used with the recommended conservation tiers. The percentage at the end of the row is the cumulative percent change in the example bills. These percentages will vary with the water use each month.

### **Multi-Family and Commercial Conservation Tiers**

Single Family residential water use is 56% of the total annual use and is currently the only user group that with a conservation rate tier structure.

Multi-family and Commercial accounts make up 27% of the total water use. They both have typical single use rates. Because of the different sizes of multi-family accounts and the wide differences in types of uses for commercial accounts, typical residential conservation tier structures are difficult to apply unless they are modified or differentiated by more distinct user categories. These type of modifications generally require additional administrative effort and customized billing software that is difficult to support. However, many agencies are implementing conservation tiers that are broader and more gradual in rate differences that are not modified or differentiated by apartment units or type of commercial use.

In discussions with City staff, conservation rate tier structures have been developed using the similar methodology as in the residential tiers. In a general review of the accounts, it appears

that the different tiers for multi-family or commercial should provide an incentive for conservation and not be overly burdensome. However, after the first year of the conservation tiers, the accounts should be reviewed to identify issues and develop possible adjustments that may be needed.

Below are summaries of the recommended conservation tiers for Multi-family and Commercial accounts. **Table 14** has more details and analysis of these conservation tiers.

Multi-Family Conservation Tiers							
	Units per Mth	Accounts	Units	Water Use in Units			
Tier 1	0 to 26	199	496	26,069			
		42%	17%	17%			
Tier 2	27 to 78	50	428	25,701			
		50%	59%	59%			
Tier 3	79+	27	1,106	49,572			
		8%	24%	24%			
Totals		276	2,030	101,342			

Commercial Conservation Tiers							
	Units per Mth	Accounts	Water Use in Units				
Tier 1	0 to 25	231	23,101				
		0%	0%				
Tier 2	26 to 61	48	23,625				
		0%	0%				
Tier 3	62+	24	46,276				
		0%	0%				
Totals		303	93,002				

An analysis was also done to project the effect of the rates on water conservation and identify the potential revenue reduction. For example, if water use in these tiers were reduced by 20% or 9 million gallons, then the net annual revenue reduction is estimated at \$27,000. Again, the potential revenue loss for conservation combined with an estimated residential loss would less than 5% of the total revenues over the five year period and should not have a significant impact the financial stability of the water system.

Below are examples of the recommended Multi-family and Commercial conservation tiers applied to various sizes and types of accounts. See **Table 15** for more details.

	Current Rates	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	5 yr %
Very Low use 2 units	\$ 75.02	\$ 70.81	\$ 69.87	\$ 75.29	\$ 78.99	\$ 82.00	
13 units per month		-6%	-1%	8%	5%	4%	9%
Low Use 8 units	\$ 139.33	\$ 129.37	\$ 127.49	\$ 136.91	\$ 143.85	\$ 149.44	
25 Units per month		-7%	-1%	7%	5%	4%	7%
Mid Use 12 units	\$ 384.15	\$ 380.15	\$ 373.10	\$ 396.89	\$ 418.61	\$ 435.90	
77 Units per month		-1%	-2%	6%	5%	4%	13%
High Use 30 units	\$ 967.24	\$1,008.82	\$ 989.93	\$1,052.60	\$1,110.40	\$1,156.39	
194 Units per month		4%	-2%	6%	5%	4%	20%
Very High Use 100 units	\$1,133.90	\$1,189.38	\$1,165.48	\$1,235.17	\$1,304.76	\$1,359.91	
237 Units per month		5%	-2%	6%	6%	4%	20%

Commercial example of average monthly water bill - both Service Charge and Use Charge										
	Current Rates	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	5 yr %			
Very Low use Dentist Office	\$ 40.85	\$ 43.17	\$ 45.71	\$ 51.13	\$ 53.44	\$ 55.34				
5 units per month		6%	6%	12%	5%	4%	35%			
Low Use Gas Station	\$ 145.92	\$ 147.42	\$ 159.27	\$ 176.51	\$ 186.07	\$ 193.70				
25 Units per month		1%	8%	11%	5%	4%	33%			
Mid Use Restaurant	\$ 335.68	\$ 353.95	\$ 383.52	\$ 424.46	\$ 448.03	\$ 466.75				
61 Units per month High Use Visitor		5%	8%	11%	6%	4%	39%			
Accommodation	\$1,173.12	\$1,337.63	\$1,454.39	\$1,607.11	\$1,698.83	\$1,771.37				
224 Units per month		14%	9%	11%	6%	4%	51%			

# **Connection Charges**

The connection charges are a combination of several charges – Front footage, Meter and Lateral Installation, Fire Service only and a Capacity charge. The methodology od calculating and charging any of the fees to new development or a change or expansion of existing development is set by Resolution 46-2007. The charges were last set in the 2007 Nelson Connection Charges and Rate Study and based on capital project costs as of July 2007. The charges have not been adjusted since they were effective in February 2008. The 2007 Study also recommended that the fees be adjusted annually based on the standard Engineering News Record Construction Cost Index percent change for the

San Francisco Bay area averaged over a three year period. This recommendation was not implemented in Resolution 46-2007

In this rate study, it is recommended to adjust the amount for each charge by the increase in the construction cost index of price increases since July 2007. The methodology of setting the charge amount or applying the charges, as defined in Resolution 46-2007 is not recommended to be adjusted at this time.

The Engineering News Record Construction Cost Index from July 2007 to July 2014 increased by 22.45% for the San Francisco Bay area. It is recommended that the following fees be increased effective January 1, 2015.

	Cı	irrent Rates	FY 14-15		
Front Footage Charge	\$	49	\$ 60		
Capacity Charge	\$	8,000	\$ 9,796		
Fire Service only Capacity Charge	\$	1,798	\$ 2,202		

In addition, the Meter and Lateral Installation charges are proposed to be determined by the City Engineer for each installation based on the cost of meter, materials, labor and equipment for meter installation by City and a 20% administration charge.

It is also recommend that the above connection fees by adjusted each January based on the previous July to July Engineering New Record Construction Cost Index for the San Francisco Bay area change on a rolling prior three year average. This annual adjustment is common to insure that the connection charges are adequate to provide the increased construction costs. Please see **Table 16** for details on the recommended changes.

# **Annual Change in Rates and Extraordinary Costs**

Similar to the annual percentage change in the Connection Fee, it is proposed that all of the rates be adjusted annually after January 1, 2020 by the Consumer Price Index (CPI). This annual change should keep the rates in line with operating costs changes. The applicable CPI would be the San Francisco-Oakland-San Jose region, which is a standardized index calculated by the Department of Labor Bureau of Labor Statistics and focused on costs in the Bay area. The process for the annual adjustments are set

by State law (Government Code section 53756) and require the City Council adopted resolution after a noticed public hearing on the rate adjustments.

In addition, as provided for in same State law, it is recommended establish a wholesale costs pass through provision. If the rates for the Sonoma County Water Agency wholesale water change greater than projected in **Table 2**, then those additional costs are reviewed and, if necessary, all or a portion of the costs can be passed through in an adjustment to the next volume charge rate increase. Any adjustments will be set by a City Council adopted resolution after a noticed public hearing.

# **Summary of Adopted Rate Changes**

Table A

Current **Rates** 

FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	Annually
January 1,	Beginning				
2015	2016	2017	2018	2019	January 1, 2020

ica monthing con		-										
Meter Size	Meter Ratios	All	Users			6.1%	1.3%	•	14.2%	2.5%	2.3%	All Rates
5/8" or 3/4"	1.00		\$15.35		\$	17.10	\$ 17.33	\$	19.79	\$ 20.28	\$ 20.75	to CF Adjustm
5/8", 3/4" or 1"	1.00		\$18.42		\$	17.10	\$ 17.33	\$	19.79	\$ 20.28	\$ 20.75	Aujustiii
1 1/2"	1.53		\$24.58		\$	26.09	\$ 26.43	\$	30.18	\$ 30.94	\$ 31.66	
2"	1.91		\$30.72		\$	32.60	\$ 33.03	\$	37.72	\$ 38.67	\$ 39.57	
3"	2.86		\$46.07		\$	48.90	\$ 49.55	\$	56.58	\$ 58.01	\$ 59.35	
4"	4.77		\$76.78		\$	81.50	\$ 82.58	\$	94.30	\$ 96.68	\$ 98.92	
5"	3.51		\$56.57		\$	60.05	\$ 60.83	\$	69.47	\$ 71.22	\$ 72.87	
6"	7.63	\$	122.96		\$	130.52	\$ 132.24	\$	151.02	\$ 154.82	\$ 158.41	
Fire Line (17% of Mete	er Service C	harge	e)									
2"	17%	\$	5.27		\$	5.59	\$ 5.66	\$	6.47	\$ 6.63	\$ 6.78	
4"	14%	\$	10.53		\$	11.17	\$ 11.31	\$	12.92	\$ 13.25	\$ 13.55	
6"	17%	\$	21.07		\$	22.34	\$ 22.63	\$	25.85	\$ 26.50	\$ 27.11	
8"		\$	31.60		\$	33.51	\$ 33.95	\$	38.77	\$ 39.75	\$ 40.67	
10"		\$	42.13		\$	44.68	\$ 45.27	\$	51.70	\$ 53.00	\$ 54.23	

# Volume Charge for amount of water used

(Charge is per Thousand Gallons (Kg) of water

Base charge For all Users

5.10

2	2.5%	• •	3.8%	8% 5.7% 5.7%		4	4.3%	All Rates tied	
\$	5.23	\$	5.43	\$ 5.74	\$	6.07	\$	6.33	to CPI Adjustments

5.74 \$

0.80

1.15

1.00

5.74

6.07 \$

1.15

1.00

5.7%

6.07

6.33

0.80 4.3%

1.15

1.00

6.33

### Residential - Base

5.10 Conservation Tiers and Rates

	nt of Monthly Water Use housand Gallons (Kg)	Current Tier Rates	+/- % of Base Rate	Ratio to First Tier	New	Tiers	+/- % of Base Rate			Re	con	nmenda	tion	l	
	Current Tiers Monthly Use							,	Varies	3.8%		5.7%		5.7%	4.3%
1	1 - 6 Kg	\$3.59	-30%	1.000	1	1 - 6 Kg	-31%	\$	3.59	\$ 3.73	\$	3.94	\$	4.17	\$ 4.35
2	7 - 18 Kg	\$6.11	20%	1.702	2	7 - 12 Kg	20%	\$	6.30	\$ 6.54	\$	6.91	\$	7.31	\$ 7.62
					3	13 - 18 Kg	35%	\$	7.07	\$ 7.34	\$	7.76	\$	8.20	\$ 8.55
3	19+ Kg	\$7.63	50%	2.125	4	19+ Kg	95%	\$	10.21	\$ 10.62	\$	11.22	\$	11.86	\$ 12.38

5.23 \$

0.85

1.05

5.23

5.43 \$

0.80

1.10

1.00

3.8%

5.43

# **Multi-Family**

Base Rate adjusted by Use Factor 0.90 \$	4.59				\$ 4.45	\$ 4.34	\$ 4.59	\$ 4.86	\$ 5.06
\$	4.59	1	1 - 26 Kg	-7%	\$ 4.13	\$ 4.04	\$ 4.27	\$ 4.52	\$ 4.71
\$	4.59	2	27 - 78 Kg	6%	\$ 4.71	\$ 4.61	\$ 4.87	\$ 5.15	\$ 5.37
\$	4.59	3	79+ Kg	12%	\$ 4.96	\$ 4.85	\$ 5.12	\$ 5.42	\$ 5.65

Base Rate Adjustment Factor

### Commercial

Base Rate adjusted by Use Factor 1.00 \$	5.10			\$ 5.49	\$ 5.97	\$ 6.60	\$ 6.98	\$ 7.28
\$	5.10	1 1-	25 Kg -5%	\$ 5.21	\$ 5.68	\$ 6.27	\$ 6.63	\$ 6.92
\$	5.10	<b>2</b> 26 -	61 Kg 0%	\$ 5.49	\$ 5.98	\$ 6.60	\$ 6.98	\$ 7.28
\$	5.10	<b>3</b> 62	+ Kq 9%	\$ 5.99	\$ 6.53	\$ 7.21	\$ 7.63	\$ 7.96

Base Rate Adjustment Factor

### Municipal

1.01 \$ Base Rate adjusted by Use Factor

Irrigation Fire & Hydrant 6.73

Base Rate Adjustment Factor	1.00	

	\$ 6.90 6.90	\$ 7.17 7.17	\$ 7.58 7.58	\$ 8.01 8.01	\$ \$	8.36 8.36
	2.6%	3.8%	5.7%	5.7%		4.3%
Base Rate Adjustment Factor	1.32	1.32	1.32	1.32		1.32

# **Summary of Adopted Rate Changes**

Table A

Current Rates

FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	Annually
January 1,	Beginning				
2015	2016	2017	2018	2019	January 1, 2020

# **Annual Change in Rates and Extraordinary Costs**

Surcharge for Rate Changes in Wholesale Water

Annual adjustment to volume charge for changes in wholesale water costs due to other agency rate changes in excess of projected changes in adopted rate study and in accordance with State Government code Section 53756.

Wholesale Water

 $3\mbox{"}$  and above - regular & compound

15% of added to charge rates listed above.

### **Connection Fees**

**Outside City Rate** 

	Current Rates	FY 14-15 January 1, 2015	FY 15-16 January 1, 2016	FY 16-17 January 1, 2017	FY 17-18 January 1, 2018	FY 18-19 January 1, 2019	Annually Beginning January 1, 2020
	·	22.4%					
Front Footage Charge	\$ 49	\$ 60	[1]	[1]	[1]	[1]	[1]
Capacity Charge	\$ 8,000	\$ 9,796	[1]	[1]	[1]	[1]	[1]
Fire Service only Capacity Charge	\$ 1,798	\$ 2,202	[1]	[1]	[1]	[1]	[1]
Meter and Lateral Installation Charges 1" Meter 1.5" Meter 2" Meter	\$ 511 \$ 715 \$ 944	installation	based on th	sed to be det le cost of met on by City and	er, materials,	labor and e	quipment for

Varies

<sup>[1]</sup> Actual percent change will be calculated each year from the July to July index change on a rolling prior three year average Engineering New Record Construction Cost Index for the San Francisco Bay area.

# **Water Sources and Uses Summary**

Table B

				Rate	Study Per	riod	
Actual	Actual	Prel Actual	Budget	Projected	Projected	Projected	Projected
FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
3,811,913	4,655,315	4,652,044	4,624,384	4,750,867	4,890,832	5,136,979	5,335,164
523,360	119,133	160,831	100,000	100,000	100,000	100,000	100,000
51,836	22,998			45,000	45,000	45,000	45,000
		179,238	295,000	2 000 000			
158.974	30.016	36.437	37.500		37.500	37.500	37,500
4,546,083	4,827,462	5,073,550	5,101,884	6,933,367	5,073,332	5,319,479	5,517,664
			0.6%	35.9%	-26.8%	4.9%	3.7%
,							1,229,564
,	,	,	,	,	,	,	710,707 114,752
							1,666,002
							868,127
349,287	354,523	353,550	353,550	353,550	353,550	353,550	353,550
4,011,022	4,439,066	4,479,519	4,627,346	4,682,418	4,654,561	4,796,119	4,942,703
535 061	388 396	594 031	474 538	2 250 949	418 771	523 360	574,961
000,001	000,000	004,001	,			•	3.1%
			0.070	,	0.070	0.070	0,
30,775	446,356	595,171	1,230,300	1,243,650	-	-	-
· -	-	123,263	646,000	520,000	320,000	320,000	470,000
-	-	72,800	590,700	171,700	300,000	100,000	1,000,000
-	-						-
30,775	446,356	791,234	2,502,000	2,135,350	1,020,000	470,000	1,470,000
142,090	138,028	262,057	121,085	123,648	258,905	261,272	261,292
172,865	584,384	1,053,291	2,623,085	2,258,998	1,278,905	731,272	1,731,292
362,196	(195,988)	(459,260)	(2,148,547)	(8,049)	(860,135)	(207,912)	(1,156,331)
607,047	539,634	353,550	353,550	353,550	353,550	353,550	353,550
5,491,317	6,460,560	6,804,206	6,698,496	4,903,499	5,249,000	4,742,415	4,888,053
6,460,560	6,804,206	6,698,496	4,903,499	5,249,000	4,742,415	4,888,053	4,085,272
25%	25%	25%	25%	25%	25%	25%	25%
915,434	1,021,136	1,031,492	1,068,449	1,082,217	1,075,253	1,110,642	1,147,288
-	-	-	462,438	475,087	489,083	513,698	533,516
179,168	185,178	185,178	185,178	185,178	185,178	185,178	185,178
141,300	141,300	141,300	141,300	279,092	279,092	279,092	279,092
5,224,658	5,456,592	5,340,525	3,046,134	3,227,426	2,713,809	2,799,443	1,940,197
6,460,560	6,804,206	6,698,496	4,903,499	5,249,000	4,742,415	4,888,053	4,085,272
	4 007 400		= 404 00 <i>4</i>			5040470	<b>5.543.00</b> 4
							5,517,664 (100,000
							(4,589,153
(2,722,722)	( / //						
360,988	623,786	607,512	433,088	504,499	672,321	776,910	828,511
	3,811,913 523,360 51,836  158,974 4,546,083  909,089 556,401 49,387 1,492,709 654,149 349,287 4,011,022  535,061  30,775 30,775 142,090  172,865 362,196 607,047 5,491,317 6,460,560  25% 915,434 - 179,168 141,300 5,224,658	3,811,913	FY 11-12         FY 12-13         FY 13-14           3,811,913         4,655,315         4,652,044           523,360         119,133         160,831           51,836         22,998         45,000           179,238         158,974         30,016         36,437           4,546,083         4,827,462         5,073,550           909,089         1,229,207         1,117,870           556,401         511,306         516,870           49,387         27,471         18,443           1,492,709         1,649,044         1,635,500           654,149         667,515         837,286           349,287         354,523         353,550           4,011,022         4,439,066         4,479,519           535,061         388,396         594,031           30,775         446,356         595,171           -         -         123,263           -         -         72,800           -         -         -           30,775         446,356         791,234           142,090         138,028         262,057           172,865         584,384         1,053,291           362,196         (195,988)	FY 11-12         FY 12-13         FY 13-14         FY 14-15           3,811,913         4,655,315         4,652,044         4,624,384           523,360         119,133         160,831         100,000           51,836         22,998         45,000         45,000           179,238         295,000         45,000         45,000           4,546,083         4,827,462         5,073,550         5,101,884           0.6%         099,089         1,229,207         1,117,870         1,092,452           556,401         511,306         516,870         619,340           49,387         27,471         18,443         100,000           1,492,709         1,649,044         1,635,500         1,665,621           654,149         667,515         837,286         796,383           349,287         354,523         353,550         353,550           4,011,022         4,439,066         4,479,519         4,627,346           535,061         388,396         594,031         474,538           3,3%         30,775         446,356         595,171         1,230,300           -         -         -         72,800         590,700           30,775         446,356 <td>Actual         Actual         Prel Actual         Budget         Projected           FY 11-12         FY 12-13         FY 13-14         FY 14-15         FY 15-16           3,811,913         4,655,315         4,652,044         4,624,384         4,750,867           523,360         119,133         160,831         100,000         100,000           51,836         22,998         45,000         45,000         45,000           4,546,083         4,827,462         5,073,550         5,101,884         6,933,367           909,089         1,229,207         1,117,870         1,092,452         1,125,226           556,401         511,306         516,870         619,340         641,017           4,9387         27,471         18,443         100,000         103,500           1,492,709         1,649,044         1,635,500         1,665,621         1,645,633           654,149         667,515         837,286         796,383         813,492           349,287         354,523         353,550         353,550         353,550           4,011,022         4,439,066         4,479,519         4,627,346         4,682,418           535,061         388,396         594,031         474,538         2,2</td> <td>Actual         Actual         Projected         Projected         Projected           FY 11-12         FY 12-13         FY 13-14         FY 14-15         FY 15-16         FY 16-17           3,811,913         4,655,315         4,652,044         4,624,384         4,750,867         4,890,832           523,360         119,133         160,831         100,000         45,000         45,000         45,000         45,000           51,836         22,998         45,000         45,000         37,500         30,750         40,313         40,41,41         4,63,500         1,61,624         4,101,624         4,101,624</td> <td>  Section</td>	Actual         Actual         Prel Actual         Budget         Projected           FY 11-12         FY 12-13         FY 13-14         FY 14-15         FY 15-16           3,811,913         4,655,315         4,652,044         4,624,384         4,750,867           523,360         119,133         160,831         100,000         100,000           51,836         22,998         45,000         45,000         45,000           4,546,083         4,827,462         5,073,550         5,101,884         6,933,367           909,089         1,229,207         1,117,870         1,092,452         1,125,226           556,401         511,306         516,870         619,340         641,017           4,9387         27,471         18,443         100,000         103,500           1,492,709         1,649,044         1,635,500         1,665,621         1,645,633           654,149         667,515         837,286         796,383         813,492           349,287         354,523         353,550         353,550         353,550           4,011,022         4,439,066         4,479,519         4,627,346         4,682,418           535,061         388,396         594,031         474,538         2,2	Actual         Actual         Projected         Projected         Projected           FY 11-12         FY 12-13         FY 13-14         FY 14-15         FY 15-16         FY 16-17           3,811,913         4,655,315         4,652,044         4,624,384         4,750,867         4,890,832           523,360         119,133         160,831         100,000         45,000         45,000         45,000         45,000           51,836         22,998         45,000         45,000         37,500         30,750         40,313         40,41,41         4,63,500         1,61,624         4,101,624         4,101,624	Section

# **Revenues from Rates**

	Budget	Projected	Projected	Projected	Projected
	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
Service Charges					
Residential	717,139	726,567	829,752	850,648	870,364
Multi-Family	64,191	65,035	74,271	76,141	77,906
Commercial	76,547	77,553	88,567	90,797	92,902
Municipal	25,038	25,367	28,970	29,699	30,388
Irrigation	24,215	24,534	28,018	28,723	29,389
Fire & Hydrant	30,046	30,441	34,764	35,640	36,466
Services Charges	937,176	949,497	1,084,341	1,111,649	1,137,414
<del>-</del>		1.3%	14.2%	2.5%	2.3%
Use Charges					
Residential	2,063,387	2,129,016	2,117,910	2,239,672	2,335,605
Multi-Family	450,516	437,275	434,994	460,003	479,706
Commercial	510,720	551,773	573,844	606,836	632,829
Municipal	345,661	356,471	354,612	374,999	391,061
Irrigation	316,924	326,835	325,130	343,822	358,549
Use Charges	3,687,208	3,801,370	3,806,490	4,025,331	4,197,750
-		3.1%	0.1%	5.7%	4.3%
Total	4,624,384	4,750,867	4,890,832	5,136,979	5,335,164
	-0.6%	2.7%	2.9%	5.0%	3.9%

# **Summary of Water System Costs**

Cost Assumptions										
Labor	3.0%	SCWA Water	Proj use & 4%							
Services & Supplies	3.5%	Depreciation	Flat - non Cash							
		Water Use	From projections							

	Actual	Actual	Prel Actual	Budget	Projected	Projected	Projected	Projected
	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
Summary								
Operations (less Depreciation)	3,661,735	4,084,543	4,125,969	4,273,796	4,328,868	4,301,011	4,442,569	4,589,153
Debt Service	138,028	262,057	123,428	121,085	123,648	258,905	261,272	261,292
Capital Improvements	30,775	446,356	791,234	2,502,000	2,135,350	1,020,000	470,000	1,470,000
Total Costs	3,830,538	4,792,956	5,040,631	6,896,881	6,587,866	5,579,916	5,173,841	6,320,445

Costs Details											
Operations											
Personnel		909.089		1,229,207		1,117,870	1,092,452	1,125,226	1,158,982	1,193,752	1,229,564
Professional Services		245,759		181,948		134,815	256,240	265,208	274,491	284,098	294,041
Contract Services - Purchased Water	1	,492,709		1,649,044		1,635,500	1,665,621	1,645,633	1,540,313	1,601,925	1,666,002
Water Conservation	-	49,387		27,471		18,443	100,000	103,500	107,123	110,872	114,752
Supplies& Other Operating Costs		310,641		285,738		271,097	313,100	324,059	335,401	347,140	359,289
Computers and Equipment		(0)		43,620		110,958	50,000	51,750	53,561	55,436	57,376
Support Services		127,336		151,410		116,669	150,866	156,146	161,611	167,268	173,122
Depreciation		349,287		354,523		353,550	353,550	353,550	353,550	353,550	353,550
Transfer Out - General Fund Support		526,813		516,105		375,154	394,298	406,127	418,311	430,860	443,786
Transfer Out - Gas Tax for Road Mntc & Service	ce Line	s				209,554					
Transfer Out - Other - Debt Contributions						135,909	251,219	251,219	251,219	251,219	251,219
Total Operations	4	,011,022		4,439,066		4,479,519	4,627,346	4,682,418	4,654,561	4,796,119	4,942,703
Less Depreciation		(349,287)		(354,523)		(353,550)	(353,550)	(353,550)	(353,550)	(353,550)	(353,550)
Net Operations	3	,661,735		4,084,543		4,125,969	4,273,796	4,328,868	4,301,011	4,442,569	4,589,153
·		4%		12%		1%	4%	1%	-1%	3%	3%
Debt Service		138,028		262,057		123,428	121,085	123,648	258,905	261,272	261,292
Capital Projects											
Water Mains		30.775		446.356		595,171	1,230,300	1,243,650	_	_	_
Service Lines		-		-		123,263	646,000	520,000	320.000	320.000	470,000
Tanks, Pumps, Wells & Other		_		_		72,800	590,700	171,700	300,000	100,000	1,000,000
Special Studies & Projects						72,000	35,000	200,000	400,000	50,000	-
Capital Projects		30,775		446,356		791,234	2,502,000	2,135,350	1,020,000	470,000	1,470,000
Total											
Total	3	,830,538		4,792,956		5,040,631	6,896,881	6,587,866	5,579,916	5,173,841	6,320,445
Sonoma County Water Agency	<b>W</b> h	olesal	e (	Cost of	W	ater					
		1,999		2.049		2.116	2.116	2,010	1.809	1.809	1,809
Projection of Water Purchase (in acre feet)		1,000		2.5%		3.3%	0.0%	-5.0%	-10.0%	0.0%	0.0%
SCWA Costs per acre foot	\$	703.33	\$	740.34	\$	768.75	\$ 787.16	\$ 818.65	\$ 851.39	\$ 885.45	\$ 920.87
Annual % Change from Prior Year				5.3%		3.8%	2.4%	4.0%	4.0%	4.0%	4.0%
Total Cost of Purchased Water	1	,406,001		1,516,958		1,626,665	1,665,621	1,645,633	1,540,313	1,601,925	1,666,002
				7.9%		7.2%	2.4%	-1.2%	-6.4%	4.0%	4.0%
SCWA Purchased Water Cost per	\$	2.16	\$	2.27	\$	2.36	\$ 2.42	\$ 2.51	\$ 2.61	\$ 2.72	\$ 2.83
Thousand Gallons (Kg)											

# Water Debt Issues - Current and Proposed

Debt Issues		Prel Actual FY 13-14	Budget FY 14-15	Projected FY 15-16	Projected FY 16-17	Projected FY 17-18	Projected FY 18-19
Existing Debt							
2012 Refunding Water Installment Sales Agreement							
Original Amount - \$1,605,000 Matures - October 2032							
Outstanding Balance at 6/30		1,545,000	1,485,000	1,420,000	1,355,000	1,285,000	1,215,000
Total Annual Payments		121,425	119,085	121,648	119,113	121,480	121,500
Existing Outstanding Balance at 6/30		1,545,000	1,485,000	1,420,000	1,355,000	1,285,000	1,215,000
Existing Annual Debt Payments		121,425	119,085	121,648	119,113	121,480	121,500
New Debt							
Wells							
Assumed Years Maturity Assumed Interest Rate % 3.00	20 0%						
Net Proceeds for Project Costs	• 70			2,000,000			
Cost of Issuance				50,000			
Assumed Outstanding Balance at 6/30 Total Assumed Annual Payments				2,050,000			
Proposed Outstanding Balance at 6/30				2,050,000	-	-	-
Proposed Annual Debt Payments					137,792	137,792	137,792
Total Debt - Existing and Proposed							
Outstanding Balance at 6/30		1,545,000	1,485,000	3,470,000	1,355,000	1,285,000	1,215,000
Annual Debt Payments		121,425	119,085	121,648	256,905	259,272	259,292
Annual Cost of Issuance & Trustees		2,000	2,000	2,000	2,000	2,000	2,000
Total Annual Debt Costs		123,425	121,085	123,648	258,905	261,272	261,292
Debt Reserve Requirement		141,300	141,300	279,092	279,092	279,092	279,092

# **Capital Improvement Projects**

Description	<b>Prel Actual</b>	Budget	Projected	Projected	Projected	Projected	Project
	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	Totals
Water Mains							
Hwy 12, Napa St West, 1st St West to City Limit Water Main & Ser	61,223	1,190,300	1,123,650				2,375,173
Zone 1 & 2 Intertie	533,948						533,948
Zone 3 Expansion			20,000				20,000
Relocation Water Main on Chase St. Bridge		40,000	100,000				140,000
Water mains	595,171	1,230,300	1,243,650	-	-	-	3,069,121
Service Lines							
Replace Meter Registers and Radios		200,000	200,000				400,000
Telemetry Upgrade & Improvements						150,000	150,000
Other System Replacement/Improvements		70,000	70,000	70,000	70,000	70,000	350,000
Street Resurfacing	15,175	150,000	150,000	150,000	150,000	150,000	765,17
Misc. Service Line Replacements	108,088	226,000	100,000	100,000	100,000	100,000	734,088
Service Lines	123,263	646,000	520,000	320,000	320,000	470,000	2,399,263
Tanks, Pumps, Wells and Other Improvements							
Feasibility Study/CEQA doc./Construct VOM/SDC CU Proj.				300,000			300,000
Well Water Treatment Improvements - Tablet Systems		20,000	20,000				40,000
Study, Construct, Test and Equip New Well #8 (Field of Dreams)	71,227	540,700	131,700				743,62
Study, Construct, Test and Equip New Well #3 Replacement						1,000,000	1,000,000
New Well #9 Siting					100,000		100,000
Groundwater Banking Pilot Project Well 6	1,573	25,000					26,573
Corp Yard Warehouse ADA Improvements		5,000	20,000				25,000
Tanks, Pumps, Wells and Other Improvements Sub-Total	72,800	590,700	171,700	300,000	100,000	1,000,000	2,235,200
Special Studies and Projects							
Water System Master Plan				400,000			400,000
Urban Water Management Plan			200,000				200,000
General Consulting on CIP Projects and Periodic Rate/Fee Study	-	35,000			50,000		85,000
Special Studies and Projects Sub-Total	-	35,000	200,000	400,000	50,000	-	685,000
Total CIP and Related Projects	791,234	2,502,000	2,135,350	1,020,000	470,000	1,470,000	8,388,584
Total on and Related Frojects	791,234	2,502,000	2,135,350	1,020,000	470,000	1,470,000	0,300,304
CIP							
Water mains	595,171	1,230,300	1,243,650				3,069,12
Future Customer Share	595,171	1,230,300	1,243,650	<u>-</u>	<u>-</u>	<u>-</u>	3,009,12
Existing Customer Share	595.171	1,230,300	1.243.650	_	_	_	3.069.12
Service Lines	123,263	646,000	520,000	320,000	320,000	470,000	2,399,26
Future Customer Share	18,499	96,952	78,042	48,026	48,026	70,538	360,08
Existing Customer Share	104,764	549,048	441,958	271,974	271,974	399,462	2,039,18
Tanks, Pumps, Wells and Other Improvements	72,800	590,700	171,700	300,000	100,000	1,000,000	2,235,20
Future Customer Share	71,334	578,808	168,243	293,960	97,987	979,868	2,190,20
Existing Customer Share	1,466	11,892	3,457	6,040	2,013	20,132	45,000
Special Studies and Projects	-	35,000	200,000	400,000	50,000	-	685,00
Future Customer Share Existing Customer Share	-	26,697 8,303	152,555 47,445	305,109 94,891	38,139 11,861	-	522,50 162,50
Total	791,234	2,502,000	2,135,350	1,020,000	470,000	1,470,000	8,388,58
Future Customer Share	89,834	702,457	398,840	647,095	184,151	1,050,405	3,072,78
Existing Customer Share	701,400	1,799,543	1,736,510	372,905	285,849	419,595	5,315,802

# Historical Water Use by User Type in Thousand Gallons (Kg)

Table 5

User Type
Residential
Multi-Family
Commercial
Municipal
Irrigation
Fire & Hydrant

Historical Use												
FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14								
329,795	340,558	347,878	385,643	394,733								
89,859	80,769	85,387	106,400	101,342								
78,148	75,966	84,926	94,881	93,002								
45,445	46,885	51,380	59,501	66,092								
35,211	37,445	36,458	43,926	45,907								
161	384	36	35	13,093								

Five Year Average	FY 13-14 Variance
359,721	10%
92,751	9%
85,385	9%
53,861	23%
39,789	15%
2,742	378%
634 249	13%

**Total Usage** 

578,619	582,007	606,065	690,386	714,169
	0.6%	4.1%	13.9%	3.4%

13%

**Acre Feet** 

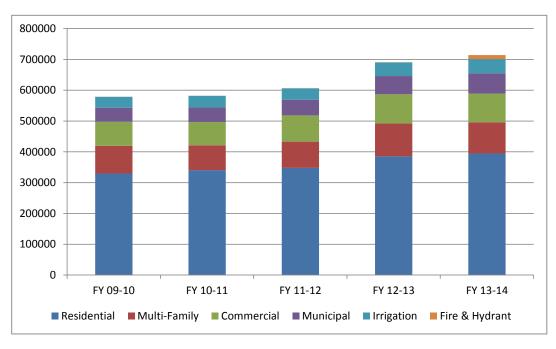
1,775.7

1,786.1

1,859.9

2,191.7 2,118.7

1,946.4

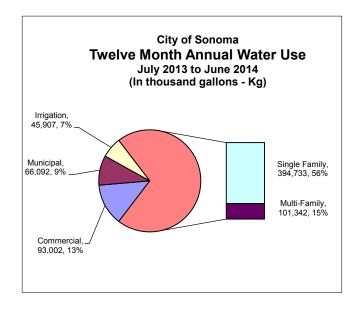


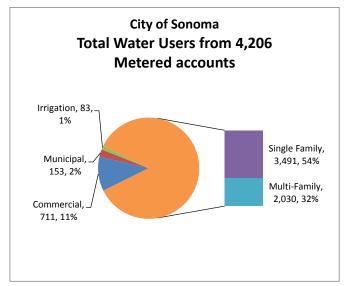
#### Water Use by User Type and Use Ratios

		Total Acco	ounts	Total User	•	Prior Fi Year - Tv Montl (July 20' June 20	velve ns 13 to	Adjus Average of Five Ye (July 2009 2014	of Last ears to June	Variance of Last 12 Mths to Five Year	Avg Annual Kg Per	Current Use Ratios [3]	Proposed Use Ratios
User Type						Total Annual (in Kg) [1]	% of Total	Total Annual (in Kg)	% of Total	Average	User [2]		
2,12	Residential	3,475	83%	3,491	54%	394,733	56%	359,721	57%	9.7%	113	1.00	1.00
6,16	Multi-Family	276	7%	2,030	31%	101,342	14%	92,751	15%	9.3%	50	0.90	0.80
1,11	Commercial	303	7%	711	11%	93,002	13%	85,385	14%	8.9%	131	1.00	1.15
5,15	Municipal	69	2%	153	2%	66,092	9%	53,861	9%	22.7%	432	1.01	1.00
3,13	Irrigation	83	2%	83	1%	45,907	7%	39,789	6%	15.4%	553	1.32	1.32
		4,206	100%	6,468	100%	701,076	100%	631,507	100%	11.0%	108		
11,4,14	Fire & Hydrant	144		144		13,093		2,742	0%	377.5%			

<sup>[1] &</sup>quot;in Kg" is a typical water meter measurement of 1000 gallons of water. This is the equivalent of 30 typical trash barrels.

<sup>[3]</sup> Over the last two years water usage has increased by almost 13% over the average of the last five years. The 2014 rate study projects a reduced water use and assumes increased conservation efforts due to the drought and mandatory State and possible water agency measures.





<sup>[2]</sup> A median single family residence uses 113,000 per year. This is a similar amount to alomost 40 typical water tank trucks.

#### Water Users by Meter Size

	Total	Total Users		Acc	ounts	by M	eter S	ize			ι	Jsers b	y Met	er Siz	е	
User # and Type	Accounts	per Accounts	5/8, 3/4, 1	1.5	2	3	4	6	Total	5/8, 3/4, 1	1.5	2	3	4	6	Total
2,12 Residential	3,475	3,491	3448	21	5	1	0	0	3,475	3,464	21	5	1	_	_	3,491
6,16 Multi-Family	276	2,030	232	28	12	4	0	0	276	1,706	206	88	29	-	-	2,030
1,11 Commercial	303	711	226	40	33	3	0	1	303	530	94	77	7	-	2	711
5,15 Municipal	69	153	41	0	16	7	4	1	69	91	-	35	16	9	2	153
3,13 Irrigation	83	83	47	15	18	2	1	0	83	47	15	18	2	1	-	83
Total	4,206	6,468	3,994	104	84	17	5	2	4,206	5,838	336	224	55	10	5	6,468
Fire Line Meter Sizes			1.5 & 2	4	6	8	10	Hyd	Total							
11,4,14 Fire Line & Hydrant	144	144	9	57	47	14	4	13	144							

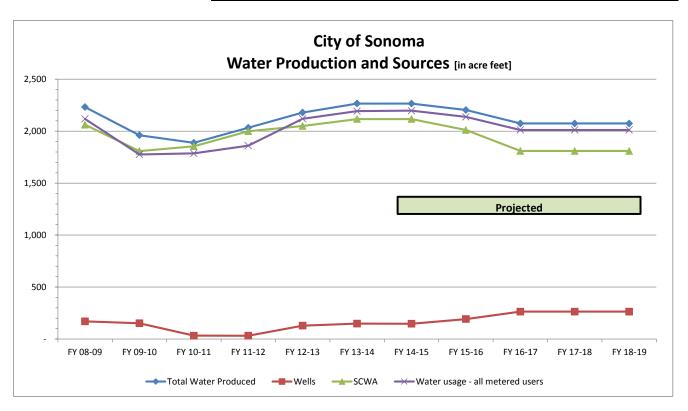
# **Meter Capacity Equivalent**

				Meters					Meter	s Capa	city Ra	tios		Total
								1.00	1.60	2.00	3.00	5.00	8.01	Meter
User Type	5/8, 3/4, 1	1.5	2	3	4	6	Total	5/8, 3/4, 1	1.5	2	3	4	6	Capacity per EDU
Accounts														
Residential	3,448	21	5	1	-	-	3,475	3,448	34	10	3	-	-	3,495
Multi-Family	232	28	12	4	-	-	276	232	45	24	12	-	-	313
Commercial	226	40	33	3	-	1	303	226	64	66	9	-	8	373
Municipal	41	-	16	7	4	1	69	41	-	32	21	20	8	122
Irrigation	47	15	18	2	1	-	83	47	24	36	6	5	-	118
	3,994	104	84	17	5	2	4,206	3,994	166	168	51	25	16	4,420
	3,994													
Users														
Residential	3,464	21	5	1	-	-	3,491	3,464	34	10	3	-	-	3,511
Multi-Family	1,706	206	88	29	-	-	2,030	1,706	330	177	88	-	-	2,301
Commercial	530	94	77	7	-	2	711	530	150	155	21	-	19	875
Municipal	91	-	35	16	9	2	153	91	-	71	47	44	18	271
Irrigation	47	15	18	2	1	-	83	47	24	36	6	5	-	118
	5,838	336	224	55	10	5	6,468	5,838	537	448	165	49	37	7,075

# **Water Production by Fiscal Year**

Table 9

			Water P	roduction	in Acre	Feet [1]		
	Actual	Actual	Prel Actual	Budget	Projected	Projected	Projected	Projected
	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
Projected in Acre Feet [1]	2,031.7	2,178.4	2,265.3	2,264.1	2,203.2	2,073.3	2,073.3	2,073.3
Production Loss or Unmetered use	(171.7)	(59.7)	(73.6)	(67.9)	(66.1)	(62.2)	(62.2)	(62.2)
Projections for Conservation as % reduction in Usage	-	-	-	-0.05%	-2.69%	-5.89%	0.00%	0.00%
Total Usage (For Rates)	1,859.9	2,118.7	2,191.7	2,196.2	2,137.1	2,011.1	2,011.1	2,011.1
Annual Percent change Cummulative Percent Change from FY 13-14	4%	14%	3%	0% 0%	-3% -2%	-6% -8%	0% -8%	0% -8%
Usage in Thousand Gallons (Kg)	606,065	690,386	714,169	715,633	696,371	655,326	655,326	655,326
Water Production Sources								
Wells	32.6	129.4	149.3	148.1	193.0	264.1	264.1	264.1
% Annual Change % of Total Production	-2% 2%	297% 6%	15% 7%	-1% 7%	30% 9%	37% 13%	0% 13%	0% 13%
Sonoma County Water Agency	1,999.1	2,049.0	2,116.0	2,116.0	2,010.2	1,809.2	1,809.2	1,809.2
% Annual Change % of Total Production	8% 98%	2% 94%	3% 93%	0% 93%	-5% 91%	-10% 87%	0% 87%	0% 87%
Total Water Production	2,031.7	2,178.4	2,265.3	2,264.1	2,203.2	2,073.3	2,073.3	2,073.3
% Annual Change	8%	7%	4%	0%	-3%	-6%	0%	0%



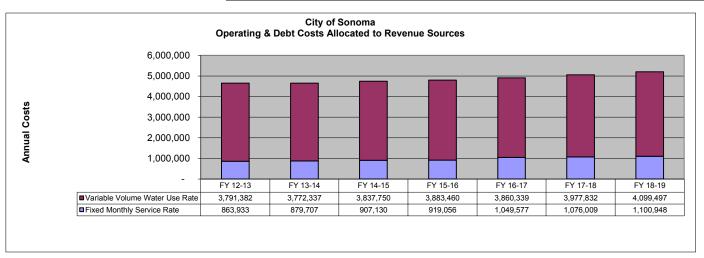
[1] From Public Works Production reports. An acre foot (af) is a typical method of measuring water production. An acre foot of water is equal to 43,560 square feet of water 12" deep, or 325,829 gallons. The volume of water would generate 893 gallons per day for one year.

# Allocation of Operations and Debt Costs between Fixed Monthly Service Charges and Variable Volume Charges

	Actual FY 11-12	Actual FY 12-13	Prel Actual FY 13-14	Budget FY 14-15	Projected FY 15-16	Projected FY 16-17	Projected FY 17-18	Projected FY 18-19
Net Operations (less depreciation)	3,661,735	4,084,543	4,125,969	4,273,796	4,328,868	4,301,011	4,442,569	4,589,153
Add Capital Funding Replacement and Reserves	12,150	308,715	402,647	350,000	350,000	350,000	350,000	350,000
Est % Fixed - from Mthly Service Charges	19.7%	13.7%	16.7%	17.0%	17.0%	17.0%	17.0%	17.0%
Est % Variable - from Use of Water	80.3%	86.3%	83.3%	83.0%	83.0%	83.0%	83.0%	83.0%
Debt Service - 100% Fixed	138,028	262,057	123,428	121,085	123,648	258,905	261,272	261,292
Total to be recovered from User Charges	3,811,913	4,655,315	4,652,044	4,744,881	4,802,516	4,909,916	5,053,841	5,200,445
		22%	0%	2%	1%	2%	3%	3%
Allocation of Costs								
Fixed Meter Service Charge	862,331	863,933	879,707	907,130	919,056	1,049,577	1,076,009	1,100,948
Variable Water Use Charge	2,949,582	3,791,382	3,772,337	3,837,750	3,883,460	3,860,339	3,977,832	4,099,497
Total to be recovered from User Charges	3,811,913	4,655,315	4,652,044	4,744,881	4,802,516	4,909,916	5,053,841	5,200,445
Fixed Costs	862,331	863,933	879,707	907,130	919,056	1,049,577	1,076,009	1,100,948
% Adjustment to reflect practical usage of system	100%	100%	100%	100%	100%	100%	100%	100%
Fixed Monthly Service Charges	862,331	863,933	879,707	907,130	919,056	1,049,577	1,076,009	1,100,948
			2%	3%	1%	14%	3%	2%
Variable Costs	2,949,582	3,791,382	3,772,337	3,837,750	3,883,460	3,860,339	3,977,832	4,099,497
Subtotal Variable Costs	2,949,582	3,791,382	3,772,337	3,837,750	3,883,460	3,860,339	3,977,832	4,099,497
Variable Use Charges	2,949,582	3,791,382	3,772,337	3,837,750	3,883,460	3,860,339	3,977,832	4,099,497
			-1%	2%	1%	-1%	3%	3%

# Allocation of Operations and Debt Costs between Fixed Monthly Service Charges and Variable Volume Charges

	Actual	Actual	Prel Actual	Budget	Projected	Projected	Projected	Projected
	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
A	Ilocation of Op	erating Co	ost by Sou	rces of Re	evenue			
Us User Fees								
Fixed Monthly Service Rate	862,331	863,933	879,707	907,130	919,056	1,049,577	1,076,009	1,100,948
Variable Volume Water Use Rate	2,949,582	3,791,382	3,772,337	3,837,750	3,883,460	3,860,339	3,977,832	4,099,497
Total	3,811,913	4,655,315	4,652,044	4,744,881	4,802,516	4,909,916	5,053,841	5,200,445
		22%	0%	2%	1%	2%	3%	3%
User Fees								
Fixed Monthly Service Rate	23%	19%	19%	19%	19%	21%	21%	21%
Variable Volume Water Use Rate	77%	81%	81%	81%	81%	79%	79%	79%
Total	100%	100%	100%	100%	100%	100%	100%	100%



Monthly Service
Charge
Calculation by
Meter Size and
Capacity
Equivalent

			Meter	Capacity E	quivalent			
User Type	5/8"/3/4"/1"	1.5"	2"	3"	4"	6"		
	1.00	1.60	2.00	3.00	5.00	8.01	Total	%
Residential	3,448	34	10	3	0	0	3,495	79%
Multi-Family	232	45	24	12	0	0	313	7%
Commercial	226	64	66	9	0	8	373	8%
Municipal	41	0	32	21	20	8	122	3%
Irrigation	47	24	36	6	5	0	118	3%
	3,994	166	168	51	25	16	4,420	100%

Meter Accounts	3,994	104	84	17	5	2	4,206
Rates per Meter Size	\$ 18.42	\$ 24.58	\$ 30.72	\$ 46.07	\$ 76.78	\$ 122.96	
Revenues Generated	\$ 777,140	\$ 30,676	\$ 30,966	\$ 9,398	\$ 4,607	\$ 2,951	\$ 855,738
Revenue Percent Change							
Fire Line							
Fire Meter Size	2	4	6	8	10		
Fire Meter Accounts	9	57	47	14	4		131
Fire Meter Monthly Rate	\$ 5.27	\$ 10.53	\$ 21.07	\$ 31.60	\$ 42.13		

									٦	Table 11	
<b>Monthly Service</b>											
Charge									F	Y 14-15	
	Not From F	ived Ceete									
Calculation by	Net From F									907,130	
Meter Size and	Net to be r			Cha	rges					907,130	
Canacity	Annual Cos	•								205.21	
Capacity	Monthly Cos	t per 5/8"/3/	/4"/1" meter	at 1.	.00 (Typi	cal S	FR)			17.10	
Equivalent	Percent Ch	ange From	Prior Year	Rat	е			\$ 15.35		11.4%	
					<b>E</b> \/ 4		4.5				
User Type					FY 1	14-	15				
	5/8"/3/4"/1"	1.5"	2"		3"		4"	6"		Total	%
	-										
Residential	707,576	6,895	2,052		616		0	(	)	717,139	79%
Multi-Family	47,610	9,194	4,925		2,463		0	(	)	64,191	7%
Commercial	46,378	13,134	13,544		1,847		0	1,644	ļ	76,547	8%
Municipal	8,414	0	6,567		4,309		4,104	1,644	ļ	25,038	3%
Irrigation	9,645	4,925	7,388		1,231		1,026	C	)	24,215	3%
	819,623	34,148	24 476		10,466		5,130	2 200		007.420	4000/
	019,023	34,140	34,476		10,466		5,130	3,288	•	907,130	100%
Materia Assessments	2.004	104	84		17		5	2		4 200	
Meter Accounts	3,994 \$ 17.10	\$ 27.36	\$ 34.20	\$	51.30	\$	85.51	\$ 136.98	4	4,206	
Rates per Meter Size	7	•							•	007.400	
Revenues Generated	\$ 819,623	\$ 34,148	\$ 34,476	\$	10,466	\$	5,130	\$ 3,288		907,130	
Revenue Percent Change	5.47%	11.32%	11.34%		11.36%		11.36%	11.40%	)	6.01%	
Fire Line											
Fire Meter Size	2	4	6		8		10				
Fire Meter Accounts	9	57	47		14		4			131	
Fire Meter Monthly Rate	\$ 5.87	\$ 11.72	\$ 23.46	\$		\$	46.92			00.040	
Fire Line Revenues	634	8,018	13,231		5,912		2,252			30,046	

Monthly Service Charge

**Calculation by** 

**Meter Size and** 

**Capacity** 

**Equivalent** 

FY 15-16

Net From Fixed Costs
919,056

Net to be recovered From Fixed Charges
Annual Cost per Meter EDU
207.91

Monthly Cost per 5/8"/3/4"/1" meter at 1.00 (Typical SFR)

Percent Change From Prior Year Rate
\$ 17.10

User Type				FY 1	5-16			
	1"	1.5"	2"	3"	4"	6"	Total	%
Residential	716,878	6,986	2,079	624	0	0	726,567	79°
Multi-Family	48,235	9,314	4,990	2,495	0	0	65,035	79
Commercial	46,988	13,306	13,722	1,871	0	1,665	77,553	89
Municipal	8,524	0	6,653	4,366	4,158	1,665	25,367	39
Irrigation	9,772	4,990	7,485	1,247	1,040	0	24,534	39
	830,398	34,596	34,929	10,603	5,198	3,331	919,056	100
Meter Accounts	830,398	34,596	34,929	10,603	5,198	3,331	919,056	100
Meter Accounts Rates per Meter Size	3,994	104	84		·	·		100
	3,994 \$ 17.33	104 \$ 27.72	84 \$ 34.65	17 \$ 51.98	5	2		100
Rates per Meter Size	3,994 \$ 17.33	104 \$ 27.72	84 \$ 34.65	17 \$ 51.98	5 \$ 86.63	2 \$ 138.78	4,206	100
Rates per Meter Size Revenues Generated	3,994 \$ 17.33 \$ 830,398	104 \$ 27.72 \$ 34,596	<b>84 \$ 34.65 \$</b> 34,929	17 \$ 51.98 \$ 10,603	<b>5 \$ 86.63 \$</b> 5,198	2 \$ 138.78 \$ 3,331	<b>4,206</b> \$ 919,056	100
Rates per Meter Size Revenues Generated Revenue Percent Change	3,994 \$ 17.33 \$ 830,398	104 \$ 27.72 \$ 34,596	<b>84 \$ 34.65 \$</b> 34,929	17 \$ 51.98 \$ 10,603	<b>5 \$ 86.63 \$</b> 5,198	2 \$ 138.78 \$ 3,331	<b>4,206</b> \$ 919,056	100
Rates per Meter Size Revenues Generated Revenue Percent Change Fire Line	3,994 \$ 17.33 \$ 830,398 1.31%	104 \$ 27.72 \$ 34,596 1.31%	<b>84 \$ 34.65 \$ 34,929</b> 1.31%	17 \$ 51.98 \$ 10,603 1.31%	<b>5</b> <b>\$ 86.63</b> <b>\$</b> 5,198 1.31%	2 \$ 138.78 \$ 3,331	<b>4,206</b> \$ 919,056	100

\$ 17.33

Table 11

FY 16-17

1,049,577

1,049,577

237.44

19.79

14.2%

Monthly Service
Charge
Calculation by
Meter Size and
Capacity
Equivalent

Net From Fixed Costs

Net to be recovered From Fixed Charges

Annual Cost per Meter EDU

Monthly Cost per 5/8"/3/4"/1" meter at 1.00 (Typical SFR)

Percent Change From Prior Year Rate

User Type				FY	16-17			
	1"	1.5"	2"	3"	4"	6"	Total	%
Residential	818,687	7,978	2,374	712	0	0	829,752	79%
Multi-Family	55,086	10,637		2,849	0		74,271	7%
Commercial	53,661	15,196	•	2,137	0		88,567	8%
Municipal	9,735	0		4,986	4,749		28,970	3%
Irrigation	11,160	5,699	8,548	1,425	1,187	0	28,018	3%
	948,329	39,510	39,890	12,109	5,936	3,804	1,049,577	100
Meter Accounts	948,329	39,510 104		12,109	5,936 5		1,049,577 4,206	100
Meter Accounts Rates per Meter Size	_	·		·				100
	3,994	104	84	17	5	2 \$ 158.49		100
Rates per Meter Size	3,994 \$ 19.79	104 \$ 31.66	<b>84 \$ 39.57</b> \$ 39,890	17 \$ 59.36	5 \$ 98.93	\$ 158.49 \$ 3,804	4,206	100
Rates per Meter Size Revenues Generated	3,994 \$ 19.79 \$ 948,329	104 \$ 31.66 \$ 39,510	<b>84 \$ 39.57</b> \$ 39,890	17 \$ 59.36 \$ 12,109	5 \$ 98.93 \$ 5,936	\$ 158.49 \$ 3,804	<b>4,206</b> \$ 1,049,577	100
Rates per Meter Size Revenues Generated Revenue Percent Change Fire Line Fire Meter Size	3,994 \$ 19.79 \$ 948,329 14.20%	104 \$ 31.66 \$ 39,510 14.20%	\$ 39.57 \$ 39.890 14.20%	17 \$ 59.36 \$ 12,109 14.20%	5 \$ 98.93 \$ 5,936	\$ 158.49 \$ 3,804	<b>4,206</b> \$ 1,049,577 14.20%	100
Rates per Meter Size Revenues Generated Revenue Percent Change Fire Line Fire Meter Size Fire Meter Accounts	3,994 \$ 19.79 \$ 948,329 14.20%	104 \$ 31.66 \$ 39,510 14.20%	\$ 39.57 \$ 39.890 14.20%	17 \$ 59.36 \$ 12,109 14.20%	5 \$ 98.93 \$ 5,936 14.20%	\$ 158.49 \$ 3,804	<b>4,206</b> \$ 1,049,577	100
Rates per Meter Size Revenues Generated Revenue Percent Change Fire Line Fire Meter Size	3,994 \$ 19.79 \$ 948,329 14.20%	104 \$ 31.66 \$ 39,510 14.20%	84 \$ 39.57 \$ 39.890 14.20% 6 47 \$ 27.14	17 \$ 59.36 \$ 12,109 14.20%	5 \$ 98.93 \$ 5,936 14.20%	\$ 158.49 \$ 3,804 14.20%	<b>4,206</b> \$ 1,049,577 14.20%	1004

Monthly Service
Charge
Calculation by
Meter Size and
Capacity
Equivalent

Net From Fixed Costs

Net to be recovered From Fixed Charges

Annual Cost per Meter EDU

Monthly Cost per 5/8"/3/4"/1" meter at 1.00 (Typical SFR)

Percent Change From Prior Year Rate

FY 17-18 1,076,009 1,076,009 243.42 20.28 \$ 19.79 2.5%

839,305 56,473 55,012 9,980 11,441		8,179 10,905 15,579 0		2" 2,434 5,842 16,066 7,789		730 2,921 2,191		<b>4"</b> 0 0		<b>6"</b> 0 0		<b>Total</b> 850,648 76,141	<b>9</b> / 79 7'
56,473 55,012 9,980		10,905 15,579 0		5,842 16,066		2,921							
55,012 9,980		15,579 0		16,066				0		0		76,141	7
55,012 9,980		15,579 0		16,066									
9,980		0						0		1,950		90,797	8'
•		E 0.40		1,100		5,112		4,868		1,950		29,699	3
		5,842		8,763		1,461		1,217		0		28,723	3
972,211		40,505		40,894		12,414		6,085		3,900		1,076,009	10
3,994		104		84		17		5		2		4,206	
20.28	\$	32.46	\$	40.57	\$	60.85	\$	101.42	\$	162.48			
972,211	\$	40,505	\$	40,894	\$	12,414	\$	6,085	\$	3,900	\$	1,076,009	
2.52%		2.52%		2.52%		2.52%		2.52%		2.52%		2.52%	
2		4		6		8		10					
9		57		47		14		4				131	
9		13.90	\$		\$	41.74						131	
9	20.28 972,211 2.52%	20.28 \$ 972,211 \$ 2.52%	20.28 \$ 32.46 272,211 \$ 40,505 2.52% 2.52%	20.28 \$ 32.46 \$ 272,211 \$ 40,505 \$ 2.52% 2.52% 2.52% 2.52%	20.28 \$ 32.46 \$ 40.57 272,211 \$ 40,505 \$ 40,894 2.52% 2.52% 2.52% 2 4 6	20.28 \$ 32.46 \$ 40.57 \$ 272,211 \$ 40,505 \$ 40,894 \$ 2.52% 2.52% 2.52%	20.28     \$ 32.46     \$ 40.57     \$ 60.85       272,211     \$ 40,505     \$ 40,894     \$ 12,414       2.52%     2.52%     2.52%     2.52%       2     4     6     8	20.28     \$ 32.46     \$ 40.57     \$ 60.85     \$       272,211     \$ 40,505     \$ 40,894     \$ 12,414     \$       2.52%     2.52%     2.52%     2.52%	20.28       \$ 32.46       \$ 40.57       \$ 60.85       \$ 101.42         272,211       \$ 40,505       \$ 40,894       \$ 12,414       \$ 6,085         2.52%       2.52%       2.52%       2.52%       2.52%         2       4       6       8       10	20.28       \$ 32.46       \$ 40.57       \$ 60.85       \$ 101.42       \$ 272,211       \$ 40,505       \$ 40,894       \$ 12,414       \$ 6,085       \$ 2.52%         2.52%       2.52%       2.52%       2.52%       2.52%	20.28       \$ 32.46       \$ 40.57       \$ 60.85       \$ 101.42       \$ 162.48         972,211       \$ 40,505       \$ 40,894       \$ 12,414       \$ 6,085       \$ 3,900         2.52%       2.52%       2.52%       2.52%       2.52%       2.52%         2       4       6       8       10	20.28       \$ 32.46       \$ 40.57       \$ 60.85       \$ 101.42       \$ 162.48         272,211       \$ 40,505       \$ 40,894       \$ 12,414       \$ 6,085       \$ 3,900       \$ 2.52%         2.52%       2.52%       2.52%       2.52%       2.52%       2.52%	20.28       \$ 32.46       \$ 40.57       \$ 60.85       \$ 101.42       \$ 162.48         972,211       \$ 40,505       \$ 40,894       \$ 12,414       \$ 6,085       \$ 3,900       \$ 1,076,009         2.52%       2.52%       2.52%       2.52%       2.52%       2.52%         2       4       6       8       10

Monthly Service
Charge
Calculation by
Meter Size and
Capacity
Equivalent

Net From Fixed Costs

Net to be recovered From Fixed Charges

Annual Cost per Meter EDU

Monthly Cost per 5/8"/3/4"/1" meter at 1.00 (Typical SFR)

Percent Change From Prior Year Rate

FY18-19
1,100,948
1,100,948
249.06
20.75
\$ 20.28 2.3%

User Type								FY 1	8-	19				
		1"		1.5"		2"	3	3"		4"		6"	Total	%
Residential		858,758		8.368		2,491		747		0		0	870,364	79%
Multi-Family		57,782		11,158		5,977		2,989		0		0	77,906	7%
Commercial		56,287		15,940		16,438		2,242		0		1,995	92,902	7% 8%
Municipal		10,211		10,940		7,970		5,230		4,981		1,995	30,388	3%
Irrigation		11,706		5,977		8,966		1,494		1,245		0	29,389	3%
		994,744		41,444		41,842	1	12,702		6,226		3,990	1,100,948	100%
	Ξ	994,744		41,444		41,842	ŕ	12,702		6,226		3,990	1,100,948	100%
Meter Accounts		3,994		41,444 104		41,842		12,702		6,226		3,990	1,100,948 4,206	100%
Meter Accounts Rates per Meter Size	\$	3,994	\$	,	\$	84		·	\$	·	\$	·		100%
	<b>\$</b>	3,994 20.75	<b>\$</b>	104	<b>\$</b>	84 41.51	\$	17	<b>\$</b>	5	<b>\$</b>	2 166.25	\$	100%
Rates per Meter Size		3,994 20.75	<del>-</del>	104 33.21		84 41.51	\$	17 62.26		5 103.77	<u> </u>	2 166.25	\$ 4,206	100%
Rates per Meter Size Revenues Generated Revenue Percent Change		3,994 20.75 994,744	<del>-</del>	104 33.21 41,444		84 41.51 41,842	\$	17 62.26 12,702		5 103.77 6,226	<u> </u>	2 166.25 3,990	\$ <b>4,206</b> 1,100,948	100%
Rates per Meter Size Revenues Generated		3,994 20.75 994,744	<del>-</del>	104 33.21 41,444		84 41.51 41,842	<b>\$</b>	17 62.26 12,702		5 103.77 6,226	<u> </u>	2 166.25 3,990	\$ <b>4,206</b> 1,100,948	100%
Rates per Meter Size Revenues Generated Revenue Percent Change Fire Line		3,994 20.75 994,744 2.32%	<del>-</del>	104 33.21 41,444 2.32%		84 41.51 41,842 2.32%	<b>\$</b>	17 62.26 12,702 2.32%		5 103.77 6,226 2.32%	<u> </u>	2 166.25 3,990	\$ <b>4,206</b> 1,100,948	100%
Rates per Meter Size Revenues Generated Revenue Percent Change Fire Line Fire Meter Size		3,994 20.75 994,744 2.32%	<del>-</del>	104 33.21 41,444 2.32%		84 41.51 41,842 2.32% 6 47	<b>\$</b>	17 62.26 12,702 2.32%		5 103.77 6,226 2.32%	<u> </u>	2 166.25 3,990	\$ <b>4,206</b> 1,100,948  2.32%	100%

/ariable Volume Rate Calculation per 1,000 gallons per unit (Kg)	FY 13-14 Ac (July 2013 t 2014	to June										
	Total	% of			Р	rojecte	d C	Change	in	Usage		
User Type	Annual Usage	Total	FY	14-15	F	Y 15-16	F	Y 16-17	F	Y 17-18	F	Y 18-19
	(in Kg)		Pro	ojected	Р	rojected	P	rojected	P	rojected	P	rojected
Base Rate per Kg [1]	\$ 5.10		\$	5.23	\$	5.43	\$	5.74	\$	6.07	\$	6.33
Residential	394,733	56%		394,529		392,084		368,974		368,974		368,974
Multi-Family	101,342	14%		101,342		100,662		94,729		94,729		94,729
Commercial	93,002	13%		93,002		92,378		86,933		86,933		86,933
Municipal	66,092	9%		66,092		65,648		61,779		61,779		61,779
Irrigation, Fire & Hydrant	45,907	7%		45,907		45,599		42,911		42,911		42,911
Annual Use in Kg	701,076	100%		700,872		696,371		655,326		655,326		655,326
			-	0.1%		-2.7%		-5.9%		0.0%		0.0%
Estimated Annual Revenues from	m \$ 3,575,488		\$ :	3,665,560	\$	3,781,295	\$	3,761,570	\$	3,977,828	\$	4,148,213

<sup>[1]</sup> Volume rate per Kg will vary by user category due to use factor and conservation tiers

volume rates

Table 12 **Costs to be Recovered from Variable Charges** Variable Volume Rate Calculation per 1,000 gallons per unit (Kg) FY 14-15 Ratios FY 15-16 Ratios FY 16-17 FY 17-18 FY 18-19 Ratios Net from 3,837,750 3,883,460 3,860,339 3,977,832 4,099,497 Variable Cost Rate Stabilzation User Type (175,000)(100,000) (100,000)0 50,000 Adjustment Net from Rates 3,662,750 3,783,460 3,760,339 3,977,832 4,149,497 Current Current Rates per Kg Rate per Kg **5.43** Rate per Kg **5.74** Rate per Kg 6.07 Rate pe Rate \$ 5.10 5.23 Ratios \$ 6.33 Base Rate per Kg [1] Ratios \$ Ratios \$ Ratios \$ Ratios 2.5% 3.8% 5.7% 5.7% 4.3% Residential 1.00 1.00 2.063.387 1.00 2,129,016 1.00 1.00 2.239.672 1.00 2.335.605 4.89 5.23 5.43 2.117.910 5.74 6.07 6.33 Multi-Family 4.59 0.90 0.85 450,516 4.45 0.80 437,275 4.34 0.80 434,994 4.59 0.80 460,003 4.86 0.80 479,706 5.06 Commercial 5.10 1.00 1.05 510,720 5.49 1.10 551,773 5.97 1.15 573,844 1.15 606,836 6.98 1.15 632,829 7.28 6.60 Municipal 1.01 1.00 1.00 345,661 1.00 356,471 354,612 1.00 374,999 1.00 391,061 6.33 5.14 5.23 5.43 5.74 6.07 Irrigation, Fire & Hydrant 6.73 1.32 1.32 316,924 6.90 1.32 326,835 7.17 1.32 325,130 7.58 1.32 343,822 8.01 1.32 358,549 **8.36** Annual Use in Kg 3,687,208 3,801,370 3,806,490 4,025,331 4,197,750 24,457 17,910 46,151 47,498 48,253

Block	by Percenti	les		2014	Reside	ntial Use					Current T	iers & Rate	S		
	<u>.</u>		# Acct	% of Total	Prctl	Annual	% of Total	Prctl			Tiers		Revenues		
Blk#	Start in Kg	End in Kg				Use in Kg				#Acct	KG				
1	0	2	448	12.9%	12.9%	7,195	1.8%	1.8%	Tier 1		0 to 6	Rate per Kg	\$ 3.59		
2	3	4	445	12.8%	25.7%	20,402	5.2%	7.0%	#Accts/Kg	1,449	66,612	Kg	66,612	\$	239,137
3	5	6	556	16.0%	41.7%	39,015	9.9%	16.9%	%	41.7%	16.9%	70.4%			
4	7	8	510	14.7%	56.4%	47,462	12.0%	28.9%				1.702	\$ 6.11		
5	9	10	408	11.7%	68.1%	48,267	12.2%	41.1%	Tier 2		7 to 18	Kg at 6	125,784	\$	451,565
6	11	12	349	10.0%	78.2%	49,607	12.6%	53.7%	#Accts/Kg	1,747	233,517	Kg remaining	107,733	\$	658,249
7	13	14	220	6.3%	84.5%	36,536	9.3%	63.0%	%	50.3%	59.2%	119.8%	233,517		
8	15	16	151	4.3%	88.8%	28,875	7.3%	70.3%							
9	17	18	109	3.1%	92.0%	22,770	5.8%	76.0%							
10	19	20	47	1.4%	93.3%	11,136	2.8%	78.9%	Tier 3		19+	2.125	\$ 7.63		
11	21	22	61	1.8%	95.1%	16,174	4.1%	83.0%	#Accts/Kg	279	94,595	Kg at 6	20,088	\$	72,116
12	23	24	43	1.2%	96.3%	12,093	3.1%	86.0%	%	8.0%	24.0%	Kg at 12	40,176	\$	245,475
13	25	+	128	3.7%	100.0%	55,192	14.0%	100.0%				Kg remaining	34,331	\$	261,946
												149.6%	94,595		
			3,475			394,724				3,475	394,724	Total Est at C	urrent Rates	\$ 1	,928,487
												Average Rate	,	\$	4.89
												Current Base	Rate	\$	5.10

Op	ption A - Current tiers and ratios with uniform rate change										t Tier Structure and st all Rates by same	Projected	d Us	age Rat	e Ch	nange
Ivera	II residen	ital rate i	increase is	greater	due to	correcti	on of		perc	ent incre	ase with no ratio	Base Rate p	er Kg	1		5.23
alloc	ation of o	osts fro	m prior rat	es.						adju	stments					
Block b	y Percentile	s		2014	Reside	ntial Use						% Change A	vg A	ctual		7.00%
DII. #	Start in Kg	End in Ka	# Acct	% of Total	Prctl	Annual	% of Total	Prctl			Tiers		Re	venues		
Blk#	Start III Ng	Elia ili Ng				Use in Kg				#Acct	KG					
1	0	2	448	12.9%	12.9%	7,195	1.8%	1.8%	Tier 1		0 to 6	Rate per Kg	\$	3.84		7.0%
2	3	4	445	12.8%	25.7%	20,402	5.2%	7.0%	#Accts/Kg	1,449	66,612	Kg		66,612	\$	255,877
3	5	6	556	16.0%	41.7%	39,015	9.9%	16.9%	%	41.7%	16.9%	73.4%				
4	7	8	510	14.7%	56.4%	47,462	12.0%	28.9%				1.702	\$	6.54		7.0%
5	9	10	408	11.7%	68.1%	48,267	12.2%	41.1%	Tier 2		7 to 18	Kg at 6		125,784		483,174
6	11	12	349	10.0%	78.2%	49,607	12.6%	53.7%	#Accts/Kg	1,747	233,517	Kg remaining		107,733		704,326
7	13	14	220	6.3%	84.5%	36,536	9.3%	63.0%	%	50.3%	59.2%	125.0%	2	33,517		
8	15	16	151	4.3%	88.8%	28,875	7.3%	70.3%								
9	17	18	109	3.1%	92.0%	22,770	5.8%	76.0%								
10	19	20	47	1.4%	93.3%	11,136	2.8%	78.9%	Tier 3		19+	2.125	\$	8.16		7.0%
11	21	22	61	1.8%	95.1%	16,174	4.1%	83.0%	#Accts/Kg	279	94,595	Kg at 6		20,088		77,164
12	23	24	43	1.2%	96.3%	12,093	3.1%	86.0%	%	8.0%	24.0%	Kg at 12		40,176		262,659
13	25	+	128	3.7%	100.0%	55,192	14.0%	100.0%				Kg remaining		34,331		280,236
												156.1%		94,595		
		ŀ	3,475			394,724				3,475	394,724	Total Est at	Curre	nt Rates	2	,063,435
												Average Rat	е		\$	5.23

Op	tion I	<b>B -</b> Adj	ust tier 1 k	ower and	increa	se ratio	s in othe	r tiers			t Tier Structure and - Adjust Tier 1 lowe	Projected	l Usage Ra	e Change
									and in	crease ra	atios in other Tiers	Base Rate pe	er Kg	5.23
Block b	y Percentile	s		2014	Reside	ntial Use						% Change Av	g Actual	7.0%
			# Acct	% of Total	Prctl	Annual	% of Total	Prctl		•	Tiers		Revenues	
Blk#	Start in Kg	End in Kg				Use in Kg				#Acct	KG			
1	0	2	448	12.9%	12.9%	7,195	1.8%	1.8%	Tier 1		0 to 6	Rate per Kg	\$ 3.68	2.5%
2	3	4	445	12.8%	25.7%	20,402	5.2%	7.0%	#Accts/Kg	1,449	66,612	Kg	66,612	\$ 245,233
3	5	6	556	16.0%	41.7%	39,015	9.9%	16.9%	%	41.7%	16.9%	70.4%		
4	7	8	510	14.7%	56.4%	47,462	12.0%	28.9%				1.670	\$ 6.58	7.7%
5	9	10	408	11.7%	68.1%	48,267	12.2%	41.1%	Tier 2		7 to 18	Kg at 6	125,784	463,075
6	11	12	349	10.0%	78.2%	49,607	12.6%	53.7%	#Accts/Kg	1,747	233,517	Kg remaining	107,733	708,720
7	13	14	220	6.3%	84.5%	36,536	9.3%	63.0%	%	50.3%	59.2%	125.8%	233,517	
8	15	16	151	4.3%	88.8%	28,875	7.3%	70.3%						
9	17	18	109	3.1%	92.0%	22,770	5.8%	76.0%						
10	19	20	47	1.4%	93.3%	11,136	2.8%	78.9%	Tier 3		19+	2.300	\$ 9.06	18.7%
11	21	22	61	1.8%	95.1%	16,174	4.1%	83.0%	#Accts/Kg	279	94,595	Kg at 6	20,088	73,954
12	23	24	43	1.2%	96.3%	12,093	3.1%	86.0%	%	8.0%	24.0%	Kg at 12	40,176	264,297
13	25	+	128	3.7%	100.0%	55,192	14.0%	100.0%				Kg remaining 173.2%	34,331 <b>94,595</b>	311,046
			3,475			394,724				3,475	394,724	Total Est at 0	urrent Rates	2,066,325
					-			-				Average Rate	)	\$ 5.23

Table 13

Create 4 Tier Structure and Adjust rate Option C Adopted - Create 4 tiers, keep tier 1 rate same **Projected Usage Rate Change** ratios - Minor increase in Tiers 1 & 2 as current and tier 2 with minimal increase. Adjust ratios in tiers 3 and and significant adjustment ratios Tiers Base Rate per Kg 5.23 4 to increase conservation incentive 2014 Residential Use **Block by Percentiles** 7.00% % Change Avg Actual Tiers Revenues Annual Blk # Start in Kg End in Kg % of Total % of Total Use in Kg #Acct KG \$ 3.59 2 12.9% 12.9% 7,195 1.8% 1.8% Tier 1 0 to 6 Rate per Kg 0.0% 448 2 3 445 12.8% 25.7% 20,402 5.2% 7.0% 1,449 66,612 66,612 \$ 239,137 4 #Accts/Ka 68.6% 41.7% 39,015 16.9% 3 6 556 16.0% 9.9% 41.7% 16.9% 7 Tier 2 7 to 12 1.640 6.30 3.1% 4 14.7% 56.4% 47,462 12.0% 28.9% 8 510 5 9 10 408 11.7% 68.1% 48,267 12.2% 41.1% #Accts/Kg 1,267 145,336 Tier 1 6 Kg 91,224 327,494 6 Kg remaining 340,891 11 12 349 10.0% 78.2% 49,607 12.6% 53.7% % 36.5% 36.8% 54,112 120.5% 145,336 1.840 7.07 Tier 3 15.7% 7 13 14 220 6.3% 84.5% 36.536 9.3% 63.0% 13 to 18 8 15 16 151 4.3% 88.8% 28.875 7.3% 70.3% #Accts/Kg 480 88.181 Tier 1 6 Kg 34,560 124,070 9 17 18 3.1% 92.0% 22,770 5.8% 22.3% 34,560 217,719 109 76.0% 13.8% Tier 2 6 Kg Kg remaining 19.061 134,723 135.1% 88,181 \$ 10.21 19 47 1.4% 93.3% 2.8% 78.9% Tier 4 19+ 2.660 33.8% 10 20 11,136 11 21 22 61 1.8% 95.1% 16,174 4.1% 83.0% 279 94,595 Tier 1 6 Kg 20,088 72,116 #Accts/Kg 12 23 24 43 1.2% 96.3% 12,093 3.1% 86.0% 8.0% 24.0% Tier 2 6 Kg 20,088 126,549 13 25 128 3.7% 100.0% 55,192 14.0% 100.0% Tier 3 6 Kg 20,088 141,982 34,331 350,446 Kg remaining 94.595 195.29 3,475 394,724 2,995 394,724 **Total Est at Current Rates** 2,075,127

Sensitivity Analysis of potential impact of conservation rates in tiers 3 and 4

						ŀ	(g Reduct	tions in Ti	ers 3 & 4	
	Kg		- 1	Revenues		10%	20%	30%	40%	50%
Tier 1	212,484	53.8%	\$	762,818	36.8%					
Tier 2	108,760	27.6%		685,159	33.0%					
Tier 3	39,149	9.9%		276,705	13.3%	3,915	7,830	11,745	15,660	19,575
Tier 4	34,331	8.7%		350,446	16.9%	3,433	6,866	10,299	13,732	17,166
	394,724	100.0%	\$	2,075,127	100.0%	7,348	14,696	22,044	29,392	36,740
% of tot	als					1.9%	3.7%	5.6%	7.4%	9.3%

Revenue Reduction in Tiers 3 & 4												
10%	20%	30%	40%	50%								
27,670	55,341	83,011	110,682	138,352								
35,045	70,089	105,134	140,178	175,223								
62,715	125,430	188,145	250,860	313,575								
3.0%	6.0%	9.1%	12.1%	15.1%								

Average Rate

5.26

SCWA calculated rate per Kg	\$ 2.42	\$ 2.51	\$ 2.61 \$	2.72	\$ 2.83
SCWA Cost Reduction	(17,782)	(36,887)	(57,535)	(79,946)	(103,974)
Net Potential reduction in Revenues	44,933	88,543	130,610	170,914	209,601

#### **Conservation For Multi-Family and Commercial Users - All in Monthly Kg**

Table 14

		00	4 4 54	I4:	:1 1 1											Projected	l Usage Rat	e Chan	ige
		20	14 Mu	iti Fam	illy U	se										Base Rate pe	er Kg		4.45
Block by	Percent	iles														% Change Ave	g Actual		-3.1%
Blk#	Start in	End in Kg	# Acct	% of Total	Prctl	# Units	% of Total	Prctl	Annual Use	% of Total	Prctl	Tiers					Revenues		
DIK #	Kg	Liiu iii Ng							in Kg				#Acct	Units	KG				
1	0	9	82	29.7%	29.7%	172	8.47%	8.47%	5,305	5.2%	5.2%	Tier 1	0 to 26						
2	10	12	40	14.5%	44.2%	94	4.63%	13.10%	5,075	5.0%	10.2%		199	496	26,069	0.93	\$ 4.13		-9.9%
3	13	15	32	11.6%	55.8%	71	3.50%	16.60%	5,190	5.1%	15.4%		72%	24%	26%	Kg	26,069	\$ 1	107,777
4	16	20	26	9.4%	65.2%	80	3.94%	20.54%	5,393	5.3%	20.7%								
5	21	26	19	6.9%	72.1%	79	3.89%	24.43%	5,106	5.0%	25.7%								
6	27	34	15	5.4%	77.5%	97	4.78%	29.21%	5,296	5.2%	30.9%	Tier 2	27 to 78						
7	35	41	12	4.3%	81.9%	85	4.19%	33.40%	5,329	5.3%	36.2%		50	428	25,701	1.0600	\$ 4.71		2.7%
8	42	48	9	3.3%	85.1%	112	5.52%	38.92%	4,782	4.7%	40.9%		18%	21%	25%	Kg at 26	15,600		64,495
9	49	65	9	3.3%	88.4%	80	3.94%	42.86%	5,800	5.7%	46.6%					Kg remaining	10,101		47,598
10	66	78	5	1.8%	90.2%	54	2.66%	45.52%	4,494	4.4%	51.1%						25,701		
11	79	187	18	6.5%	96.7%	522	25.71%	71.23%	25,957	25.6%	76.7%	Tier 3	79 +						
12	188+		9	3.3%	100.0%	584	28.77%	100.00%	23,615	23.3%	100.0%		27	1106	49,572	1.2000	\$ 4.96		8.1%
									-,-				10%	54%		Kg at 26	8,424		34,827
																Kg at 52	16,848		79,392
																Kg remaining	24,300		120,557
																	49,572		l
			276			2,030			101,342				276	2,030	101,342			4	54,647
																		4	50,516
																			0.9%

							Kg Redu	ctions in	Tier 3	
	Kg		R	evenues		10%	20%	30%	40%	50%
Tier 1	50.093	49.4%	\$	207.100	45.6%					
Tier 2	26,949	26.6%	_	126,990	27.9%					
Tier 3	24,300	24.0%		120,557	26.5%	2,430	4,860	7,290	9,720	12,150
	101,342	100.0%	\$	454,647	100.0%	2,430	4,860	7,290	9,720	12,150
% of tot	als					2.4%	4.8%	7.2%	9.6%	12.0%

Revenue Reduction in Tier 3									
10%	20%	30%	40%	50%					
12,056	24,111	36,167	48,223	60,278					
12,056	24,111	36,167	48,223	60,278					
2.7%	5.3%	8.0%	10.6%	13.3%					

 SCWA Cost Reduction
 \$ 2.42
 \$ 2.51
 \$ 2.61
 \$ 2.72
 \$ 2.83

 (5.881)
 (12.199)
 (19.027)
 (26.438)
 (34.385)

 Net Loss
 6,175
 11,913
 17,140
 21,784
 25,894

#### Conservation For Multi-Family and Commercial Users - All in Monthly Kg

Table 14

		20	14 Cor	mmorc	ial II	20						Projected	Usage Rat	e Change
		20	14 001	IIIIIeic	iai U	5 <del>C</del>						Base Rate p	er Kg	5.49
Block by	Percent	iles							!			% Change Avg	Actual	7.7%
Blk#	Start in	End in Kg	# Acct	% of Total	Prctl	Annual	% of Total	Prctl	Tiers				Revenues	
DIK #	Kg	Liiu iii Ng				Use in Kg	/o Or Total	FICU		#Acct	KG			
1	0	7	126	41.6%	41.6%	4,644	5.0%	5.0%	Tier 1	0 to 25				
2	8	12	39	12.9%	54.5%	4,571	4.9%	9.9%		231	23,101	0.95	\$ 5.21	2.1%
3	13	16	27	8.9%	63.4%	4,669	5.0%	14.9%		76%	25%	Kg	23,101	\$ 120,285
4	17	21	22	7.3%	70.6%	4,586	4.9%	19.9%						
5	22	25	17	5.6%	76.2%	4,631	5.0%	24.8%						
6	26	33	13	4.3%	80.5%	4,627	5.0%	29.8%	Tier 2	26 to 61				
7	34	39	11	3.6%	84.2%	4,756	5.1%	34.9%		48	23,625	1.0000	\$ 5.49	7.7%
8	40	42	9	3.0%	87.1%	4,381	4.7%	39.6%		16%	25%	Kg at 25	14,400	74,980
9	43	52	9	3.0%	90.1%	5,104	5.5%	45.1%				Kg remaining	9,225	50,659
10	53	61	6	2.0%	92.1%	4,757	5.1%	50.2%					23,625	
11	62	172	17	5.6%	97.7%	22,296	24.0%	74.2%	Tier 3	62+				
12	173 +		7	2.3%	100.0%	23,980	25.8%	100.0%		24	46,276	1.1500	\$ 5.99	17.4%
										8%	50%	Kg at 25	7,200	37,490
												Kg at 61	17,568	96,475
												Kg remaining	21,508	128,789
													46,276	
		·	303			93,002	·			303	93,002			508,678
														510,720
														-0.4%

							Kg Redu	ctions in	Tier 3	
	Kg		Re	evenues	<u> </u>	10%	20%	30%	40%	50%
Tier 1	44.701	48.1%	\$	232.755	45.8%					
Tier 2	26,793	28.8%		147,134	28.9%					
Tier 3	21,508	23.1%		128,789	25.3%	2,151	4,302	6,452	8,603	10,754
	93,002	100.0%	\$	508,678	100.0%	2,151	4,302	6,452	8,603	10,754
% of tota	ıls					2.3%	4.6%	6.9%	9.3%	11.6%

	Revenue	Reduction	in Tier 3	
10%	20%	30%	40%	50%
12,879	25,758	38,637	51,516	64,395
12,879	25,758	38,637	51,516	64,395
2.5%	5.1%	7.6%	10.1%	12.7%

 SCWA Cost Reduction
 \$ 2.42
 \$ 2.51
 \$ 2.61
 \$ 2.72
 \$ 2.83

 (5,205)
 (10,797)
 (16,841)
 (23,401)
 (30,434)

 Net Loss
 7,674
 14,961
 21,796
 28,115
 33,961

# **Examples of Rate Changes for Monthly costs**

Table 15

Current Rates FY 14-15 FY 15-16 FY 16-17 FY 17-18 FY 18-19

Single Fami	lv											
onigie i ann	ı y											
Meter Charge Use Charge in Kg	5/8, 3/4 o	r 1"		15.35	\$ 17.10	\$ 17.33	\$	19.79	\$	20.28	\$	20.75
	Current	•										
Tier 1	0 - 6	0 - 6	\$	3.59	\$ 3.59	\$ 3.73	\$	3.94	\$	4.17	\$	4.35
Tier 2	7-18	7 - 12	\$	6.11	\$ 6.30	\$ 6.54	\$	6.91	\$	7.31	\$	7.62
Tier 3	19 +	13 - 18	\$	7.63	\$ 7.07	\$ 7.34	\$	7.76	\$	8.20	\$	8.55
Tier 4		19 +			\$ 10.21	\$ 10.62	\$	11.22	\$	11.86	\$	12.38
Low use - 25% p	ercential											
Meter Charge Use Charge in Kg				15.35	17.10	17.33		19.79		20.28		20.75
Tier 1	6	6		21.54	21.54	22.36		23.64		25.00		26.07
Tier 2	2			12.22	12.60	13.08		13.83		14.62		15.25
Tier 3	0			-	-	-		-		14.02		-
Tier 4	U	0		_	_	_		_		_		_
1101 4	8		\$	49.11	\$ 51.24	\$ 52.77	\$	57.26	\$	59.91	\$	62.07
			Ψ_	40.11	 4%	 3%	Ψ	8%	_	5%	т	4%
Mid use - 50% pe	rcential											
Meter Charge				15.35	17.10	17.33		19.79		20.28		20.75
Use Charge in Kg												
Tier 1	6	6		21.54	21.54	22.36		23.64		25.00		26.07
Tier 2	7	6		42.77	37.80	39.24		41.48		43.87		45.75
Tier 3	0	1		-	7.07	7.34		7.76		8.20		8.55
Tier 4		0			_	_		_		_		-
	13	13	\$	79.66	\$ 83.51	\$ 86.27	\$	92.67	\$	97.36	\$	101.13
High use - 80% p	orcontial				5%	3%		7%		5%		4%
Meter Charge	o cerman			15.35	17.10	17.33		19.79		20.28		20.75
Use Charge in Kg				เอ.ออ	17.10	17.33		19.79		20.20		20.73
Tier 1	6	6		21.54	21.54	22.36		23.64		25.00		26.07
Tier 2	12	6		73.32	37.80	39.24		41.48		43.87		45.75
	3			22.89	42.41	44.03		46.54		49.22		51.33
Tier 3	J											
	3	3			30.62	31.85		33.67		35.58		37.13
Tier 3	21	3 <b>21</b>	\$	133.10	\$ 30.62 <b>149.47</b>	\$ 31.85 <b>154.82</b>	\$	33.67 <b>165.13</b>	\$	35.58 <b>173.95</b>	\$	37.13 <b>181.03</b>

Examples	nples of Rate Changes for N		Monthly costs							Table 15				
		Current Rates		F	Y 14-15	F	Y 15-16	F	FY 16-17		FY 17-18		Y 18-19	
Multi- Family														
Meter Charge	5/8, 3/4 or 1"	\$ 15.35		\$	17.10	\$	17.33	\$	19.79	\$	20.28	\$	20.75	
	1 :	\$ 18.42		\$	17.10	\$	17.33	\$	19.79	\$	20.28	\$	20.75	
	1.5	\$ 24.58		\$	26.09	\$	26.43	\$	30.18	\$	30.94	\$	31.66	
		\$ 30.72		\$	32.60	\$	33.03	\$	37.72	\$	38.67	\$	39.57	
		\$ 46.07		\$	48.90	\$	49.55	\$	56.58	\$	58.01	\$	59.35	
	4 :	\$ 76.78		\$	81.50	\$	82.58	\$	94.30	\$	96.68	\$	98.92	
Use Charge in Kg				_		_		_				_		
Base Use Charge in	Kg :	\$ 4.59		\$	4.45	\$	4.34	\$	4.59	\$	4.86	\$	5.06	
Tier 1			0 to 26	\$	4.13	\$	4.04	\$	4.27	\$	4.52		4.71	
Tier 2			27 to 78	\$	4.71	\$	4.61		4.87		5.15		5.37	
Tier 3			79+	\$	4.96	\$	4.85	\$	5.12	\$	5.42	\$	5.65	
ery Low use - 2 Units	s at 12% perc	entile												
Meter Charge	5/8			\$	17.10	\$	17.33	\$	19.79	\$	20.28	\$	20.75	
Use Charge in Kg	13													
Tier 1	13	\$ 59.67			53.75		52.52		55.52		58.71		61.22	
Tier 2	0				-		-		_		-		-	
Tier 3	0				-		-		-		-		-	
	13	\$ 75.02	_	\$	70.85	\$	69.84	\$	75.30	\$	78.99	\$	81.98	
			_		-6%		-1%		8%		5%		4%	
ow use - 8 units at 25	5% percentile													
Meter Charge	1.5	\$ 24.58		\$	26.09	\$	26.43	\$	30.18	\$	30.94	\$	31.66	
Jse Charge in Kg	25													
Tier 1	25	\$ 114.75			103.36		101.00		106.76		112.90		117.74	
Tier 2	0				-		-		-		-		-	
Tier 3	0		_		-		-		-		-			
	25	\$ 139.33	_	\$	129.44	\$	127.43	\$	136.95	\$	143.85	\$	149.40	
					-7%		-2%		7%		5%		4%	
id use - 12 Units at 5	•			•	00.00	•	00.00	•	07.70	•	00.07	•	00.55	
Meter Charge	2 5			\$	32.60	\$	33.03	\$	37.72	\$	38.67	\$	39.57	
Jse Charge in Kg	77	\$ 353.43			407.40		405.04		444.00		447.40		400.45	
Tier 1	26				107.49		105.04		111.03		117.42		122.45	
Tier 2	51				240.32		235.35		248.27		262.55		273.79	
Tier 3	77	\$ 384.15	_	\$	380.42	\$	373.42	\$	397.03	\$	418.64	\$	435.81	
		φ 304.13	_	Ψ_	-1%	Ψ	-2%	Ψ	6%	Ψ	5%	_	433.61	
igh use - 30 Units at	80% percenti	ile			. 70		-70		0,0		0,0		-170	
Meter Charge	4			\$	81.50	\$	82.58	\$	94.30	\$	96.68	\$	98.92	
Jse Charge in Kg	194			•		•		•		*		•		
Tier 1	26				107.49		105.04		111.03		117.42		122.45	
Tier 2	52				245.04		239.96		253.14		267.69		279.16	
Tier 3	116				575.50		562.36		594.46		628.64		655.57	
	194	\$ 967.24	_	\$	1,009.53	\$	989.93	\$	1,052.94	\$	1,110.43	\$	1,156.09	
			_		4%		-2%		6%		5%		4%	
ery High use - 100 Ur	nits at 95% pe	ercentile												
Meter Charge	3	\$ 46.07		\$	48.90	\$	49.55	\$	56.58	\$	58.01	\$	59.35	
Jse Charge in Kg	237	\$ 1,087.83												
Tier 1	26				107.49		105.04		111.03		117.42		122.45	
	52				245.04		239.96		253.14		267.69		279.16	
Tier 2	32													
Tier 2 Tier 3	159		_		788.83		770.82		814.82		861.67	_	898.58	
		\$ 1,133.90	_	\$	788.83 <b>1,190.26</b>	\$	770.82 <b>1,165.36</b>	\$	814.82 <b>1,235.58</b>	\$	861.67 <b>1,304.79</b>	\$	898.58 <b>1,359.54</b>	

#### **Examples of Rate Changes for Monthly costs** Table 15 Current FY 14-15 FY 15-16 FY 16-17 FY 17-18 FY 18-19 **Rates** Commercial **Meter Charge** 5/8, 3/4 or 1" \$ 15.35 17.10 17.33 \$ 19.79 \$ 20.28 \$ 20.75 \$ \$ 17.33 17.10 \$ \$ 20.28 20.75 1 \$ 18.42 \$ 19.79 \$ 1.5 \$ 24.58 \$ 26.09 \$ 26.43 \$ 30.18 \$ 30.94 \$ 31.66 2 \$ 30.72 \$ 32.60 \$ 33.03 \$ 37.72 \$ 38.67 \$ 39.57 Use Charge in Kg Base Use Charge in Kg \$ 5.10 \$ 5.49 \$ 5.97 \$ 6.60 \$ 6.98 \$ 7.28 Tier 1 0 to 25 \$ 5.21 \$ 5.68 \$ 6.27 \$ 6.63 \$ 6.92 Tier 2 26 to 61 \$ 5.49 \$ 5.98 6.60 \$ 6.98 \$ 7.28 \$ \$ \$ Tier 3 62+ \$ 5.99 6.53 \$ 7.21 \$ 7.63 7.96 Very Low use - Dentist Office at 3% percentile 5/8 \$ \$ Meter Charge 15.35 17.10 \$ 17.33 \$ 19.79 \$ 20.28 \$ 20.75 Use Charge in Kg 5 \$ 25.50 Tier 1 5 26.03 28.42 31.36 33.16 34.58 Tier 2 Tier 3 40.85 5 \$ \$ 43.14 \$ 45.74 51.14 \$ 53.44 55.33 4% 12% 35% 6% 6% 4% Low use - Gas Station at 25% percentile \$ Meter Charge 1 \$ 18.42 17.10 \$ 17.33 \$ 19.79 \$ 20.28 \$ 20.75 Use Charge in Kg 25 \$ 127.50 Tier 1 25 130.17 142.09 156.78 165.79 172.89 Tier 2 Tier 3 25 \$ 145.92 147.27 159.41 176.56 186.07 193.65 33% 1% 8% 11% 5% 4% Mid use - Restaurant at 50% percentile Meter Charge 24.58 \$ 26.09 \$ 26.43 \$ 30.18 \$ 30.94 \$ 31.66 Use Charge in Kg 61 \$ 311.10 Tier 1 25 130.17 142.09 156.78 165.79 172.89 Tier 2 36 197.69 215.39 237.67 251.34 262.10 Tier 3 61 \$ 335.68 353.95 383.90 424.63 448.07 466.65 5% 8% 11% 6% 4% 39% High use - Visitor Accomodation at 80% percentile Meter Charge 2 \$ 30.72 32.60 \$ 33.03 \$ 37.72 \$ 38.67 \$ 39.57 Use Charge in Kg 224 \$ 1,142.40 25 Tier 1 130.17 142.09 156.78 165.79 172.89 Tier 2 36 197.69 215.39 237.67 251.34 262.10 976.04 1,297.71 Tier 3 163 1,064.88 1,175.21 1,244.40 224 \$ 1,173.12 1,336.51 1,455.39 1,607.38 1,700.21 \$ 1,772.27 51% 14% 9% 10% 6% 4%

#### **Connection Fee Update**

Table 16

In December 2007, the City Council adopted Resolution 46-2007 that implemented the 2007 Connection Charge and Rate Study recommendations and set connection fees charged to new, changed or expanded water service connections. The connection fees have not been updated since 2007 and should be adjusted to reflect current & projected construction cost increases, which the fees are based on.

The 2007 Study also recommended that the fees be adjusted annually based on the standard Engineering News Record Construction Cost Index percent change for the San Francisco Bay area averaged over a three year period. This recommendation was not implemented in Resolution 46-2007 and is proposed to be implemented in this 2014 Water Rate Study.

#### Engineering News Record Construction Cost Index for the San Francisco Bay area (www.enr.construction.com/economics)

	Index	Percent Change						
Annual Index & Percent Change								
July 2007	4,986.64							
July 2008	5,313.85	6.56%						
July 2009	5,464.31	2.83%						
July 2010	5,600.24	2.49%						
July 2011	5,923.27	5.77%						
July 2012	6,039.21	1.96%						
July 2013	6,048.77	0.16%						
July 2014	6,229.80	2.99%						
Percent Change from 2007				Updated from 2007	Example of	Projected An	nual Percent	Change [1]
Three Year Average - 2012, 2013 & 2014	6105.93	22.45%		22.45%	2.00%	2.00%	2.00%	2.00%
			Current Rates	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
		-						

Annual

		urrent Rates	FY	14-15	FY	′ 15-16	F	Y 16-17	F	Y 17-18	F۱	/ 18-19
Front Footage Charge [2]	\$	49	\$	60	\$	61	\$	62	\$	64	\$	65
Capacity Charge [2]	\$	8,000	\$	9,796	\$	9,992	\$	10,191	\$	10,395	\$	10,603
Fire Service only Capacity Charge [2]	\$	1,798	\$	2,202	\$	2,246	\$	2,291	\$	2,336	\$	2,383
Meter and Lateral Installation Charges [2]												
1" Meter	\$	511	The	e Charges	are	proposed	to b	e determir	ned I	by the City	Enc	ineer for
1.5" Meter	\$	715		•						, materials	_	
2" Meter	\$	944	е	quipment	for n	neter insta		, ,	and	a 20% adı	minis	stration
3" and above - regular & compound	Var	ies [3]					C	charge.				

<sup>[1]</sup> Actual percent change will be calculated each year from the July to July index change on a rolling prior three year average Engineering New Record Construction Cost Index for the San Francisco Bay area.

<sup>[2]</sup> Current basis and rates from adopted Resolution 46-2007 that implemented the 2007 Connection Charge and Rate Study.

<sup>[3]</sup> Per Resolution 46-2007 the charge shall be determined by City and shall be cost of materials, labor and equipment for meter and installation plus 20% administration charge

#### **Appendix**

- Resolution 46-2007 Water Rate and fee increases for the period 2008 through 2012
- Resolution 28-2014 Schedule of User Fees, Licenses & Permit Charges
- State of California Government Code Section 53755 and 53756 Changes to Rates
- Draft of City of Sonoma Resolution to adopt rate changes per 2014 Water Rate Study
- Draft of 45-Day Public Notice for Public Hearing on Rate changes
- Resolution 56-2014 Water Rate and Fee increases for the Fiscal Year 2014-15 through 2018-2019 and setting water rates and connection fees to be effective January 1, 2015 and each January 1<sup>st</sup> thereafter to January 1, 2019

#### CITY OF SONOMA

#### RESOLUTION NO. 46 - 2007

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SONOMA,
ADOPTING A PROGRAM OF WATER RATE AND FEE INCREASES FOR THE
PERIOD 2008 THROUGH 2012 AND SETTING WATER RATES AND
CONNECTION FEES TO BE EFFECTIVE FEBRUARY 1, 2008

WHEREAS, the City Council has determined that certain changes in water rates and connection fees charged to customers of the City of Sonoma Water Utility are required to fund expenses incurred by the Water Utility, based on a report entitled, "City of Sonoma Year 2007 Connection Charge and Rate Study;" and

**WHEREAS**, pursuant to Proposition 218, a notice of the public hearing to be held on December 19, 2007 was mailed to all affected property owners; and

WHEREAS, on December 19, 2007 the City Council conducted a public hearing and gave every interested person an opportunity to make a written protest to the scheduled connection fee and rate changes as recommended in the City of Sonoma Year 2007 Connection Charge and Rate Study, and the City Council has considered each protest; and

WHEREAS, the City Council finds that a majority written protest against the connection fee and rate changes as recommended and listed in the City of Sonoma Year 2007 Connection Charge and Rate Study does not exist; and

WHEREAS, the City Council finds, based upon all evidence in the record, including without limitation the City of Sonoma Year 2007 Connection Charge and Rate Study, that the proposed water rates and charges do not exceed the estimated amount required to provide water service to properties served by the Water Utility; and

WHEREAS, the water rates and water connection fees do not exceed the cost of providing the service for which they are charged.

**NOW, THEREFORE, BE IT RESOLVED**, by the City Council of the City of Sonoma as follows:

#### Section 1, City of Sonoma Year 2007 Connection Charge and Rate Study

The City of Sonoma Year 2007 Connection Charge and Rate Study, including the recommended rate schedule and fees for the period 2008 through 2012, which is attached hereto and by this reference made a part hereof is hereby adopted.

#### Section 2. Water Rates and Charges

Pursuant to the authority granted in Section 13.04.120 and Sections 13.24.150 through 13.24.190 of the Municipal Code, the rates and charges set forth below are hereby adopted effective on the specified date:

#### A) SERVICE CHARGE (effective February 1, 2008)

Meter Size	Bimonthly Service Charge
5/8"	\$ 24.31
, 1#	29.19
1½"	38.94
2"	48.67
3"	72.99
4"	121.65
5 "	89.62
6 "	194.82
Hydrant	24.34

#### (B) WATER RATES (effective February 1, 2008)

#### 1. Single Family Residential Detached Dwellings and Second Units:

Water Rate per Unit of Use\* per Bimonthly Billing Period (Note: 1 Unit = 1,000 gallons):

	Block 1	Block 2	Block 3
For consumption	Through 12 Units	13 to 36 units	Greater than 36 units
Inside City Limits	\$2.85	\$4.84	\$6.05
Outside City Limits	\$3.27	\$5.57	\$6.96

#### 2. All Other Customer Groups:

Water Rate per Unit of Use\* per Bimonthly Billing Period (Note: 1 Unit = 1,000 gallons):

		<u>City Limits</u>	Outside City
a.	Multi-family Residential Dwellings (apartment, condominium/townhouse, mobile home, duplex, triplex, fourplex, live/work):	\$4.14	\$4.76
b.	Commercial, Institutional and Industrial	\$4.04	\$4.65
Ç,	Municipal (others also) government,		
	institutional and certain no profits	\$3.44	\$3.96
d.	Irrigation Service (separately metered)	\$5.33	\$6.13
€,	Hydrant (temporary meter permits)	\$5,33	\$6.13

#### (C) CONNECTION CHARGES (effective February 18, 2008)

The connection charge for a new service connection shall be the sum of: the front foot charge, meter charge and capacity charge. The front foot charge does not apply in cases where a main extension is required. All applicants must also provide a service lateral (pipe from main to meter) as noted in the City's Water Rate and Fee Schedule.

#### 1. Front Foot Charge

The front foot charge shall be \$49 per linear foot of frontage on the existing main located in the street. If the lot is bounded by more than one street with mains then, the front footage shall be the sum of the front foot distances on each main divided by the number of streets with mains. If the lot is an irregular lot, such as a flag lot or inner lot the minimum front foot distance shall be 100 feet.

The minimum front footage upon which the front foot charge is based shall be 100 feet.

#### 2. Meter and Lateral Installation Charges

The lateral is the pipeline extending from the main to the meter. The size and materials used shall be approved by the City. The lateral shall terminate in a meter box at a location approved by the City Water Department. The lateral shall be installed to meet City standards. The applicant shall hire or make arrangements for an underground contractor licensed by the State of California to install the lateral and meter box and other appurtenant and required equipment and devices (such as a backflow prevention device if deemed necessary by City). The meter, however, shall be furnished and installed by the City. Applicant shall pay a meter charge for the meter and installation as shown in the following table:

Meter Size (diameter in inches)	Meter Charge (includes installation by City)
1 - inch	, \$ 511
1 1/2 inch	<b>\$</b> 715
2 - inch	. \$ 944
3 - inch compound and abo	ove Note a

Note a: Charge shall be determined by City and shall be cost of materials, labor and equipment for meter and installation plus 20% administration charge.

#### 3. Fire Service Only

In cases where required design fire flow for a given application for consumptive—water service exceeds 1,000 gallons per minute (with 20 psi residual), the Capacity Charge shall be increased by \$1,798 per 100 gallons per minute of such excess.

In the cases where the applicant is only being provided fire flow and is not requesting water for consumptive purposes, the Capacity Charge shall be \$1,798 per 100 gallons per minute of design fire flow provided.

#### (D) CAPACITY CHARGES (effective February 1, 2008)

The capacity charge shall be calculated in terms of the demand of an equivalent single-family dwelling (ESD). An ESD is defined as the water demand for the average day of the maximum month for a typical single family detached home served by the City. The value of an ESD has been determined by the City to be 561 gallons per day. Capacity charges for residential customers and commercial, institutional and industrial customers are calculated as shown below. Note, if at any time a customer's use exceeds the estimate used in determining the capacity charge, the City may require that the customer pay an additional capacity charge at the

rate then in effect for each ESD of such excess. For connections made prior to June 6, 1999, base use shall be determined by the City from examination of historic water use records.

#### 1. Residential Customers

For residential customers, the capacity charge is calculated by multiplying the appropriate charge in the following table times the number of equivalent dwelling units (ESDs) in that category.

Type of Residential Dwelling	Capacity Charge per dwelling unit
Single family detached dwellings (1.00 ESD)	8,000
Townhouses/condominiums, duplexes, triplexes, and fourplexes (0.80 ESD)  Mobile home (0.51 ESD)	6,400 4,080
Apartment houses (5 or more dwelling units) (0.47 ESD)	3,760
Second/accessory dwellings (dwelling on a parcel in undivided ownership (0.47 ESD)	3,760

If the area of a residential dwelling is larger than 4,000 square feet or if the area to be irrigated (excluding drip irrigation area) is greater than 2,500 square feet, the capacity charge shall be calculated as set forth in the Section entitled, "Capacity Charges – Non-Residential."

#### 2. Non-Residential And Separately Metered Irrigation

Commercial/institutional and industrial charges shall be based on the following
Equivalent Single Family Dwelling Unit ESD factors. The ESD rating for each
application shall be computed by multiplying the applicable measurement units
by the ESD factor(s). The capacity charge shall then be calculated by multiplying
the total ESDs by the capacity charge for a single-family residential dwelling unit.
If a single service connection serves both a residential and a non-residential use,
or more than one non-residential use, the connection fees for each use shall be additive.
The minimum ESD for each separate non-residential water service connection shall be
1.0.

Use Category	Unit of Measurement	Factor
Agricultural All agricultural uses	Each 561 gpd estimated water use during peak month	1.0
Commercial	Connections	1.0
_ Auto dealers	Service bays	0.2
Bars and taverns	Design occupancy	0.04
Business and Professional Offices	1,000 sq. ft.	1.0
Car washes (self service)	Stalls	1.0
Car washes (except self service)	Each 561 gpd estimated water use during peak month	1.0
Churches, halls and lodges	Connections	1.0
Dental offices	1,000 sq. ft.	1.0
Dry Cleaners	1,000 sq. ft.	1.5
Garages	Service bays	0.5

Use Category	Unit of Measurement	Factor
Hospitals		
Convalescent	Beds	0.3
General	Beds	0.3
Hotels/motels	Sleeping rooms	0.5
•	Kitchen facilities	0.5
	Manager's living quarters .	1.0
	Washing machines (laundry)	1.0
	Other facilities	*
Laundries		
Laundromats	Washing machines	1.0
Other laundries	Each 561 gpd	
	estimated water use during peak	
	month	
Medical offices	1,000 sq. ft.	1.0
Restaurants		
Dine-on	Design seating occupancy	0.2
Take-out	1,000 sq. ft.	2.5
Rest homes	Beds	0.3
Service stations	Gas pumps	0.5
	Service bays	0.2
Storage (self service)	1,000 sq. ft.	0.2
Theaters	Seats	0.05
Warehouse	1,000 sq. ft.	0.2
Other business and	·	,
commercial development	1,000 sq. ft.	1.0
Industrial	Each 561 gpd estimated water use	
All industrial uses	during peak month or 1,000 sq. ft.	
	whichever is greater.	1.0
All other uses *	By determining use during average day	
	of peak month and dividing by 561 gpd.	

<sup>\*</sup> To be determined by the City Manager or Designated Representative.

# (E) BACKFLOW PREVENTION DEVICE INSPECTION CHARGES (effective February 1, 2008)

In cases where a backflow prevention device is determined by the City to be required, applicant shall hire a qualified contractor and be responsible for installing same. An inspection fee shall be charged at the current hourly rate for Public Works Inspection to each such device (typical inspection time of one hour),

Backflow prevention device required where there is a well on the property to be served and for irrigation services and certain commercial uses (check with the City Manager or Designated Representative).

#### (F) REPLACEMENT OF BROKEN METER BOXES (effective February 1, 2008)

Cost to replace meter box (broken by contractor): \$80 (up to 1" meter); \$125 (1½" & 2" meter). Cost does not include replacement of broken meter or service line. Cost does not include removal and replacement of surrounding concrete structures if present.

Charges for larger boxes shall be cost of materials, labor and equipment plus 20% administrative charges.

#### (G) FIRE LINE SERVICE CHARGES (effective February 1, 2008)

Line Size	Monthly Charge	Bimonthly Charge
2"	8.34	16.68
<b>4</b> "	16.68	33.36
6"	33.37	66.74
8"	. 50.06	100.12 -
. 10"	66.75	133.50

#### (H) NEW RENTAL ACCOUNT DEPOSIT (effective February 1, 2008)

A deposit of \$150 will be charged to all new accounts, residential or non-residential, when the person responsible for paying the water bill (applicant) is not the property owner. Said \$150 deposit shall be refunded if no final shutoff notices have been issued by the City for 24 months.

#### (I) CHANGED OR EXPANDED USE (effective February 1, 2008)

Whenever new "development" as defined in California Government Code Section 65927 (residential or non-residential) occurs on a premise with an existing water service connection, additional connection fees shall be charged as applicable under this resolution.

Whenever an expansion or change in use (non-residential) occurs on a premise with an existing water service connection, which expansion or change in use substantially increases the amount of water used through said connection as determined by the City Manager or Designated Representative, additional fees shall be charged to account for said higher usage. Said additional fees shall be based on applicable ESD factors as provided in this resolution.

#### (J) PENALTIES (effective February 1, 2008)

#### 1. Late charge

A late charge of \$40 will be added to a customer's bill which is more than 35 days past due. Customers whose water is turned off for nonpayment of their bill will be charged \$165 to have their water turned back on.

#### 2. Unauthorized use of City water

Unauthorized use of the City water at a meter will result in a penalty charge of \$75; other unauthorized uses of City water will result in a penalty charge of \$200. These penalty charges are in addition to the cost of water used and of any damaged equipment.

#### Section 4 All Other Charges

All other rates, charges, fees, penalties, etc. not provided for herein which are presently charged in connection with operation of the City of Sonoma Water Utility shall remain unchanged.

**PASSED, APPROVED AND ADOPTED** by the City Council of the City of Sonoma at its regular meeting held on December 19, 2007 by the following vote:

Ayes:

Sebastiani, Brown, Barbose, Cohen, Sanders

Noes:

None

Absent:

None

Joanne Sanders, Maybr

ATTEST:

Gay Rainsbarger, City Gerk

#### CITY OF SONOMA

#### RESOLUTION NO. 28 - 2014

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SONOMA,
AMENDING RESOLUTION 46-2007 TO REFLECT MONTHLY BILLING OF
WATER CHARGES TO BE EFFECTIVE UPON IMPLEMENTATION OF
MONTHLY BILLING IN THE CITY OF SONOMA

WHEREAS, the City Council has determined that billing for water services monthly will be a valuable service to City water customers and will assist with efforts to conserve water in the City of Sonoma and

**WHEREAS**, rates established on December 19, 2007 are being modified to reflect monthly billing and are not being increased or decreased. Therefore, a public hearing is not required, pursuant to Proposition 218.

**NOW, THEREFORE, BE IT RESOLVED**, by the City Council of the City of Sonoma as follows:

Section 2. subsection (A), (B), (G) of resolution 46-2007 is amended as follows:

#### Section 2. Water Rates and Charges

Pursuant to the authority granted in Section 13.04.120 and Sections 13.24.150 through 13.24.190 of the Municipal Code, the rates and charges set forth below are hereby adopted effective on the specified date:

(A) SERVICE CHARGE (effective upon implementation of monthly billing by billing cycle)

Meter Size	Monthly Service Charge
5/8"	\$15.35
1"	\$18.42
1 ½ "	\$24.58
2"	\$30.72
3"	\$46.07
4"	\$76.78
5"	\$56.57
6"	\$122.96
Hydrant	\$15.36

- (B) WATER RATES (effective upon implementation of monthly billing)
- 1. Single Family Residential Detached Dwellings and Second Units:

Water Rate per Unit of Use\* per Monthly Billing Period (Note: 1 Unit = 1,000 gallons):

	Block 1	Block 2	Block 3
For consumption	Through 6 Units	7 to 18 units	Greater than 18 units
Inside City Limits	\$3.59	\$6.11	\$7.63
Outside City Limits	\$4.13	\$7.03	\$8.78

#### 2. All Other Customer Groups:

Water Rate per Unit of Use\* per Monthly Billing Period (Note: 1 Unit = 1,000 gallons):

		City Limits	Outside City
a.	Multi-family Residential Dwellings	\$4.59	\$5.27
	(apartment, condominium/townhouse,		
	mobile home, duplex, triplex, fourplex,		
	live/work):		
b.	Commercial, Institutional and Industrial	\$5.10	\$5.87
C.	Municipal (others also) government,		
	institutional and certain non-profits	\$5.14	\$5.91
d.	Irrigation Service (separately metered)	\$6.73	\$7.74
e.	Hydrant (temporary meter permits)	\$6.73	\$6.73

#### (G) FIRE LINE SERVICE CHARGES (effective upon implementation of monthly billing)

Line Size	Monthly Charge
2"	\$5.27
4"	\$10.53
6"	\$21.07
8"	\$31.60
10"	\$42.13

**PASSED, APPROVED AND ADOPTED** by the City Council of the City of Sonoma at its regular meeting held on June 23, 2014 by the following vote:

Tom Rouse, Mayor

AYES:

Barbose, Cook, Brown, Gallian, Rouse

NOES:

None

ABSENT:

None

ATTEST:

Gav Johann

Assistant City Manager/City Clerk

# GOVERNMENT CODE – GOV TITLE 5. LOCAL AGENCIES [50001 - 57550] ( Title 5 added by Stats. 1949, Ch. 81. ) DIVISION 2. CITIES, COUNTIES, AND OTHER AGENCIES [53000 - 55821] ( Division 2 added by Stats. 1949, Ch. 81. ) PART 1. POWERS AND DUTIES COMMON TO CITIES, COUNTIES, AND OTHER AGENCIES [53000 - 54999.7] ( Part 1 added by Stats. 1949, Ch. 81. ) CHAPTER 4. Financial Affairs [53600 - 53997] ( Chapter 4 added by Stats. 1949, Ch. 81. )

# ARTICLE 4.6. Proposition 218 Omnibus Implementation Act [53750 - 53758]

(Article 4.6 added by Stats. 1997, Ch. 38, Sec. 5.)

- **53756.** An agency providing water, wastewater, sewer, or refuse collection service may adopt a schedule of fees or charges authorizing automatic adjustments that pass through increases in wholesale charges for water, sewage treatment, or wastewater treatment or adjustments for inflation, if it complies with all of the following:
- (a) It adopts the schedule of fees or charges for a property-related service for a period not to exceed five years pursuant to Section 53755.
- (b) The schedule of fees or charges may include a schedule of adjustments, including a clearly defined formula for adjusting for inflation. Any inflation adjustment to a fee or charge for a property-related service shall not exceed the cost of providing that service.
- (c) The schedule of fees or charges for an agency that purchases wholesale water, sewage treatment, or wastewater treatment from a public agency may provide for automatic adjustments that pass through the adopted increases or decreases in the wholesale charges for water, sewage treatment, or wastewater treatment established by the other agency.
- (d) Notice of any adjustment pursuant to the schedule shall be given pursuant to subdivision (a) of Section 53755, not less than 30 days before the effective date of the adjustment.

(Amended by Stats. 2012, Ch. 103, Sec. 1. Effective January 1, 2013.)

- **53755.** (a) (1) The notice required by paragraph (1) of subdivision (a) of Section 6 of Article XIII D of the California Constitution of a proposed increase of an existing fee or charge for a property-related service being provided to a parcel may be given by including it in the agency's regular billing statement for the fee or charge or by any other mailing by the agency to the address to which the agency customarily mails the billing statement for the fee or charge.
- (2) The notice required by paragraph (1) of subdivision (a) of Section 6 of Article XIII D of the California Constitution of a proposed new fee or charge may be given in the manner authorized for notice of an increase of a fee or charge if the agency is currently providing an existing property-related service to the address.
- (3) If the agency desires to preserve any authority it may have to record or enforce a lien on the parcel to which service is provided, the agency shall also mail notice to the recordowner's address shown on the last equalized assessment roll if that address is different than the billing or service address.
- (b) One written protest per parcel, filed by an owner or tenant of the parcel, shall be counted in calculating a majority protest to a proposed new or increased fee or charge subject to the requirements of Section 6 of Article XIII D of the California Constitution.
- (c) Any agency that bills, collects, and remits a fee or charge on behalf of another agency may provide the notice required by Section 6 of Article XIII D of the California Constitution on behalf of the other agency.

(Added by Stats. 2007, Ch. 280, Sec. 1. Effective January 1, 2008.)

# CITY OF SONOMA

RESOLUTION NO.			

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SONOMA, ADOPTING A PROGRAM OF WATER RATE AND FEE INCREASES FOR FISCAL YEAR 2014-15 THROUGH 2018-19 AND SETTING WATER RATES AND CONNECTION FEES TO BE EFFECTIVE JANUARY 1, 2015 AND EACH JANUARY 1<sup>ST</sup> THEREAFTER TO JANUARY 1, 2019

**WHEREAS**, the City Council has determined that certain changes in water rates and connection fees charged to customers of the City of Sonoma Water Utility are required to fund expenses incurred by the Water Utility, based on a report entitled, "City of Sonoma 2014 Water Rate Study;" and

**WHEREAS**, pursuant to Proposition 218, a notice of the public hearing to be held on November 17, 2014 was mailed to all affected utility account holders and property owners; and

WHEREAS, on November 17, 2014 the City Council conducted a public hearing and gave every interested person an opportunity to make a written protest to the scheduled connection fee and rate changes as recommended in the City of Sonoma 2014 Water Rate Study, and the City Council has considered each protest; and

WHEREAS, the City Council finds that a majority written protest against the connection fee and rate changes as recommended and listed in the City of Sonoma 2014 Water Rate Study does not exist; and

**WHEREAS**, the City Council finds, based upon all evidence in the record, including without limitation the City of Sonoma 2014 Water Rate Study, that the proposed water rates and charges do not exceed the estimated amount required to provide water service to properties served by the Water Utility; and

**WHEREAS**, the water rates and other rates and charges do not exceed the cost of providing the service for which they are charged; and

**NOW, THEREFORE, BE IT RESOLVED**, by the City Council of the City of Sonoma as follows:

#### Section 1. City of Sonoma 2014 Water Rate Study

The City of Sonoma 2014 Water Rate Study, including the recommended rate schedule and fees for Fiscal Years 2014-15 through 2018-19, which is attached hereto and by this reference made a part hereof is hereby adopted.

#### Section 2. Water Rates and Charges

Pursuant to the authority granted in Section 13.04.120 and Sections 13.24.150 through 13.24.190 of the Municipal Code, the rates and charges set forth below are hereby adopted effective on the specified date:

# A) SERVICE CHARGE - Monthly billing period

	1/1/2015	1/1/2016	1/1/2017	1/1/2018	1/1/2019	Annually Beginning 1/1/2020
Meter Size						
5/8" or 3/4"	\$ 17.10	\$ 17.33	\$ 19.79	\$ 20.28	\$ 20.75	
5/8", 3/4" or 1"	\$ 17.10	\$ 17.33	\$ 19.79	\$ 20.28	\$ 20.75	
1 1/2"	\$ 26.09	\$ 26.43	\$ 30.18	\$ 30.94	\$ 31.66	
2"	\$ 32.60	\$ 33.03	\$ 37.72	\$ 38.67	\$ 39.57	
3"	\$ 48.90	\$ 49.55	\$ 56.58	\$ 58.01	\$ 59.35	
4"	\$ 81.50	\$ 82.58	\$ 94.30	\$ 96.68	\$ 98.92	All Rates tied
5"	\$ 60.05	\$ 60.83	\$ 69.47	\$ 71.22	\$ 72.87	to CPI
6"	\$ 130.52	\$ 132.24	\$ 151.02	\$ 154.82	\$ 158.41	Adjustments
Fire Line Meter Size						.,
2"	\$ 5.87	\$ 5.95	\$ 6.80	\$ 6.97	\$ 7.13	
4"	\$ 11.74	\$ 11.89	\$ 13.58	\$ 13.92	\$ 14.24	
6"	\$ 23.48	\$ 23.78	\$ 27.16	\$ 27.85	\$ 28.49	
8"	\$ 35.22	\$ 35.68	\$ 40.75	\$ 41.77	\$ 42.74	
10"	\$ 46.95	\$ 47.57	\$ 54.32	\$ 55.69	\$ 56.98	

# (B) WATER USE RATES – Monthly billing period

1. Base Water Use Rate:

	1/1/2015	1/1/2016	1/1/2017	1/1/2018	1/1/2019	Annually Beginning 1/1/2020
Base charge For all Users - Adjusted by Use Factor	\$ 5.23	\$ 5.43	\$ 5.74	\$ 6.07	\$ 6.33	All Rates tied to CPI Adjustments
Use Factors						
Residential	1.00	1.00	1.00	1.00	1.00	1.00
Multi-Family	0.85	0.80	0.80	0.80	0.80	0.80
Commercial	1.05	1.10	1.15	1.15	1.15	1.15
Municipal	1.00	1.00	1.00	1.00	1.00	1.00
Irrigation, Fire & Hydrant	1.32	1.32	1.32	1.32	1.32	1.32

2. Single Family Residential Detached Dwellings and Second Units (Water Use Rate per Unit of Use per Monthly Billing Period - 1 Unit = 1,000 gallons):

		1/1/2015	1/1/2016	1/1/2017	1/1/2018	1/1/2019	Annually Beginning 1/1/2020
Single Family	Single Family Residential Detached Dwellings & Second Units Conservation						
	s - Amount of M						
1	1-6 Kg	\$ 3.59	\$ 3.73	\$ 3.94	\$ 4.17	\$ 4.35	
2	7 - 12 Kg	\$ 6.30	\$ 6.55	\$ 6.91	\$ 7.31	\$ 7.63	All Rates tied to CPI
3	13 - 18 Kg	\$ 7.07	\$ 7.35	\$ 7.76	\$ 8.21	\$ 8.56	Adjustments
4	19+ Kg	\$10.21	\$10.62	\$11.22	\$11.86	\$12.38	

3. Multi-family Residential Dwellings (apartment, condominium/townhouse, mobile home, duplex, triplex, fourplex, live/work) Water Use Rate per Unit of Use per Monthly Billing Period - 1 Unit = 1,000 gallons):

		1/1/2015	1/1/2016	1/1/2017	1/1/2018	1/1/2019	Annually Beginning 1/1/2020
Multi-Family Conservation Tiers and Rates - Amount of Monthly Water Use							
1	1 - 26 Kg	\$ 4.13	\$ 4.04	\$ 4.27	\$ 4.52	\$ 4.71	All Rates tied
2	27 - 78 Kg	\$ 4.71	\$ 4.61	\$ 4.87	\$ 5.15	\$ 5.37	to CPI
3	79+ Kg	\$ 4.96	\$ 4.85	\$ 5.12	\$ 5.42	\$ 5.65	Adjustments

4 Commercial – All Commercial Institutional and Industrial

		1/1/2015	1/1/2016	1/1/2017	1/1/2018	1/1/2019	Annually Beginning 1/1/2020
Commercial Conservation Tiers and Rates - Amount of Monthly Water Use							
1	1 - 25 Kg	\$ 5.21	\$ 5.68	\$ 6.27	\$ 6.63	\$ 6.92	All Rates tied
2	26 - 61 Kg	\$ 5.49	\$ 5.98	\$ 6.60	\$ 6.98	\$ 7.28	to CPI
3	62+ Kg	\$ 5.99	\$ 6.53	\$ 7.21	\$ 7.63	\$ 7.96	Adjustments

5. Other Customer Groups - Municipal - governments, institutional and certain non-profits; Irrigation Service (separately metered); Fire Service (separately metered) & Hydrant (temporary meter permits) – Monthly billing period

Municipal
Irrigation
Fire & Hydrant

1/1/2015	1/1/2016	1/1/2017	1/1/2018	1/1/2019	Annually Beginning 1/1/2020	
\$ 5.23	\$ 5.43	\$ 5.74	\$ 6.07	\$ 6.33	All Rates tied to	
\$ 6.90	\$ 7.17	\$ 7.57	\$ 8.01	\$ 8.36	CPI	
\$ 6.90	\$ 7.17	\$ 7.57	\$ 8.01	\$ 8.36	Adjustments	

# 6. Other Charges:

- a. For all accounts outside of the City of Sonoma city limits 15% will be added to Service and Water Use rates listed above.
- Annual adjustment to the Water Use rates for changes in wholesale water costs due to Sonoma Water Agency or other agency rate changes in excess of projected changes in adopted 2014 Water Rate study and in accordance with Government Code Section 53756, to provide for a pass through of any increase in the cost of wholesale water purchased from another agency.
- c. Beginning on January 1, 2020, the Service and Water Use rates may be adjusted annually to provide for the increase, if any, in the San Francisco-Oakland-San Jose Consumer Price Index over the latest available prior 12-month period following notice and a public hearing in accordance with applicable law.

#### (C) **CONNECTION CHARGES**

The connection charge for a new service connection shall be the sum of: the front foot charge, meter charge and capacity charge. The front foot charge does not apply in cases where a main extension is required. All applicants must also provide a service lateral (pipe from main to meter) as noted in the City's Water Rate and Fee Schedule.

# 1. Front Foot Charge

The front foot charge shall be \$ 60 per linear foot of frontage on the existing main located in the street. If the lot is bounded by more than one street with mains then, the front footage shall be the sum of the front foot distances on each main divided by the number of streets with mains. If the lot is an irregular lot, such as a flag lot or inner lot the minimum front foot distance shall be 100 feet.

The minimum front footage upon which the front foot charge is based shall be 100 feet.

#### 2. Meter and Lateral Installation Charges

The lateral is the pipeline extending from the main to the meter. The size and materials used shall be approved by the City. The lateral shall terminate in a meter box at a location approved by the City Water Department. The lateral shall be installed to meet City standards. The applicant shall hire or make arrangements for an underground contractor licensed by the State of California to install the lateral and meter box and other appurtenant and required equipment and devices (such as a backflow prevention device if deemed necessary by City).

The meter, however, shall be furnished and installed by the City. Applicant shall pay a meter charge for the meter and installation cost of materials, labor and equipment plus 20% administration charge as determined by the City at the time of installation.

#### 3. Fire Service Only

In cases where required design fire flow for a given application for consumptive water service exceeds 1,000 gallons per minute (with 20 psi residual), the Capacity Charge shall be increased by \$ 2,202 per 100 gallons per minute of such excess.

In the cases where the applicant is only being provided fire flow and is not requesting water for consumptive purposes, the Capacity Charge shall be \$ 2,202 per 100 gallons per minute of design fire flow provided.

#### 4. Capacity Charge

The capacity charge shall be calculated in terms of the demand of an equivalent single-family dwelling (ESD). An ESD is defined as the water demand for the average day of the maximum month for a typical single family detached home served by the City. The value of an ESD has been determined by the City to be 561 gallons per day. Capacity charges for residential customers and commercial, institutional and industrial customers are calculated as shown below. Note, if at any time a customer's use exceeds the estimate used in determining the capacity charge, the City may require that the customer pay an additional capacity charge at the rate then in effect for each ESD of such excess. For connections made prior to June 6, 1999, base use shall be determined by the City from examination of historic water use records.

- a. The Base Capacity Charge per ESD is \$ 9,796 effective January 1, 2015 and adjusted annually as
- b. Residential Accounts For residential customers, the capacity charge is calculated by multiplying the Base Capacity Charge by the factor in the following table times the number of equivalent dwelling units (ESDs) in that category.

If the area of a residential dwelling is larger than 4,000 square feet or if the area to be irrigated (excluding drip irrigation area) is greater than 2,500 square feet, the capacity charge shall be calculated as set forth in section d below

# Type of Residential Dwelling

Use Category	Capacity Charge Unit of Measurement	ESD Factor applied per unit of measurement to ESD Base Capacity Rate
Single family detached dwellings	Dwelling Unit	1.00
Townhouses/condominiums, duplexes, triplexes, and fourplexes	Dwelling Unit	0.80
Mobile home	Dwelling Unit	0.51
Apartment houses (5 or more dwelling units)	Dwelling Unit	0.47
Second/accessory dwellings (dwelling on a parcel in undivided ownership	Dwelling Unit	0.47

c. Non-Residential and Separately Metered Irrigation accounts

Commercial, institutional and industrial capacity charges shall be based on the following Equivalent Single Family Dwelling Unit ESD factors. The ESD rating for each application shall be computed by multiplying the applicable measurement units by the ESD factor(s). The capacity charge shall then be calculated by multiplying the total ESDs by the Base Capacity Charge per ESD.

If a single service connection serves both a residential and a non-residential use, or more than one non-residential use, the connection fees for each use shall be additive.

The minimum ESD for each separate non-residential water service connection shall be 1.0.

# **Other Uses**

Use Category	Capacity Charge Unit of Measurement	ESD Factor applied per unit of measurement to ESD Base Capacity Rate
Commercial	Connections	1.00
Auto dealers	Service bays	0.20

Bars and taverns	Design occupancy	0.04
Business and Professional Offices	1,000 sq. ft.	1.00
Car washes (self service)	Stalls	1.00
Car washes (except self service)	Each 561 gpd of estimated water use during peak month	1.00
Churches, halls and lodges	Connections	1.00
Dental offices	1,000 sq. ft.	1.00
Dry Cleaners	1,000 sq. ft.	1.50
Garages	Service bays	0.50
Hospitals - Convalescent	Beds	0.30
Hospitals - General	Beds	0.30
	Sleeping rooms	0.50
	Kitchen facilities	0.50
Hotels/motels	Manager's living quarters	1.00
	Washing machines (laundry)	1.00
	Other facilities	TBD – Section d
Laundromats	Washing machines	1.00
Other laundries	Each 561 gpd of estimated water use during peak month	1.00
Medical offices	1,000 sq. ft.	1.00
Restaurants - Dine-in	Design seating occupancy	0.20
Restaurants - Take-out	1,000 sq. ft.	2.50
Rest homes	Beds	0.30
Service stations	Gas pumps	0.50
Col vice stations	Service bays	0.20
Storage (self service)	1,000 sq. ft.	0.20
Theaters	Seats	0.05
Warehouse	1,000 sq. ft.	0.20
Other business and commercial development	1,000 sq. ft.	1.00
All industrial uses	Each 561 gpd estimated water use during peak month or 1,000 sq. ft. whichever is greater.	1.00
All other uses not specified above	By determining use during average day of peak month and dividing by 561 gpd.	TBD – Section d

- d. For ESD factors not specified above to be applied to the Base Capacity Charge, the ESD factor shall be determined by the City Manager or Designated Representative.
- e. The Front Footage, Fire Service and Capacity Charges shall be adjusted annually effective each January 1st by the Engineering News Record (ENR) Construction Cost Index for the San Francisco Bay area annual percent change from July to July averaged over the three prior years.

#### (E) BACKFLOW PREVENTION DEVICE INSPECTION CHARGES

In cases where a backflow prevention device is determined by the City to be required, applicant shall hire a qualified contractor and be responsible for installing same. An inspection fee shall be charged at the current hourly rate for Public Works Inspection to each such device (typical inspection time of one hour).

A backflow prevention device is required where there is a well on the property to be served and for irrigation services and certain commercial uses. Applicant shall verify with the City Manager or Designated Representative.

#### (F) REPLACEMENT OF BROKEN METER BOXES

Charges to replace meter box (broken by contractor) including, if required, removal and replacement of surrounding concrete structures if present, shall be cost of materials, labor and equipment plus 20% administrative charges at the time of the breakage and repair.

#### (G) NEW RENTAL ACCOUNT DEPOSIT

A deposit of \$150 will be charged to all new accounts, residential or non-residential, when the person responsible for paying the water bill (applicant) is not the property owner. Said \$150 deposit shall be refunded if no final shutoff notices have been issued by the City for 24 months.

#### (H) CHANGED OR EXPANDED USE

Whenever new "development" as defined in California Government Code Section 65927 (residential or non-residential) occurs on a premise with an existing water service connection, additional connection fees shall be charged as applicable under this resolution.

Whenever an expansion or change in use (non-residential) occurs on a premise with an existing water service connection, which expansion or change in use substantially increases the amount of water used through said connection as determined by the City Manager or Designated Representative, additional connection fees shall be charged to account for said higher usage. Said additional connection fees shall be based on applicable ESD factors as provided in this resolution.

#### (I) PENALTIES

#### Late charge

Water bills are due 20 days from the date mailed.

A Water Service Delinquent Notice (2<sup>nd</sup> Notice) Fee shall apply when a customer's bill is not paid within 39 days of mailing of the original bill. This fee shall be as specified in the City of Sonoma Fee Schedule.

If a customer's bill is not paid within 47 days of mailing, the water service may be turned off. A "Water Service Turn Off" fee shall apply.

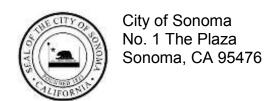
#### 2. Unauthorized use of City water

Unauthorized use of the City water at a meter will result in a penalty charge of \$75; other unauthorized uses of City water will result in a penalty charge of \$200. These penalty charges are in addition to the cost of water used and replacement of any damaged equipment.

#### Section 4 **All Other Charges**

All other rates, charges, fees, penalties, etc. not provided for herein which are presently charged in connection with operation of the City of Sonoma Water Utility shall remain unchanged.

PASSED, APPROVED AND AD regular meeting held on	<b>OPTED</b> by the City Council of the City of Sonoma at its by the following vote:
Ayes: Noes: Absent:	
	, Mayor
	ATTEST:
	, City Clerk



# [MAILING LABEL GOES HERE]

# **Notice of Public Hearing**

NOTICE IS HEREBY GIVEN, pursuant to Article XIII (D) of the California Constitution that the City of Calistoga is proposing to increase its rates for Water and Wastewater services. The City Council will conduct a public hearing on this matter, which will be held on:

Date: Tuesday, November 17, 2014

Time: 6:00 P.M.

Place: City of Sonoma Community Meeting Room

177 First Street West, Sonoma, CA

The hearing will review the proposed changes for water rates, and other related changes to fees and charges. At the time of the public hearing, the Council will hear and consider all protests and objections concerning these matters. This notice has been sent to all utility customers and property owners, if different, as of the last address available. If there is no majority protest, the Council will consider and may adopt the increased rates by ordinance. The proposed rate changes will become effective after adoption of the resolution and the effective date therein.

This Notice of Public Hearing provides information on the proposed water rate changes as required by State law. The resolution for proposed rate changes is anticipated to be presented to the City Council after the public hearing and the protests to the rate change has been tabulated. This notice also provides information on how the rates are calculated, the reasons for the required rate changes, how customers can receive more information on the effect of the rate changes, and how to file a protest against the proposed rate changes.



# Water Rate Changes Public Hearing November 17, 2014

# Why do the rates need to be changed?

The last water rate study to project and set rates was adopted in December 2007 and water rates have not changed since February 2012. The costs to maintain water system have increased over the years, in spite of cost reducing measures by the City. The costs of labor, energy, chemicals and compliance with Federal and State regulations for clean water continue to rise. In addition, the Sonoma County Water Agency costs to bring the water to Sonoma have increased. The City must also comply with State law requirements for adequate water supply and with financial agreements to maintain adequate reserves and operating revenues over expenses. The City also has a responsibility to the ratepayers to keep the water system efficient and financially sustainable with adequate funding for system replacement and operating reserves.

With the extended drought, conservation tiers for residential accounts need to be adjusted to provide greater incentives to conserve water. In addition, new conservation tiers should be established for multi-family and commercial accounts to encourage conservation

#### What has been done to control costs?

The City has made efforts in the water budget to reduce costs by deferring equipment replacement, extending regular maintenance intervals where appropriate, joining in collaborative compliance actions with other Water Agency contractors, and making greater use of local well water supply. For questions on Water operations or improvements, please contact the Public Works Department at (707) 938-3332.

#### **How Are the Rate Changes Developed?**

A rate study is a formal analysis to determine a fair allocation of costs between residential and non-residential users based on use of the services and impact on the water system. It also accounts for conservation measures and pricing in the residential and non-residential rates and allocates costs to new development to pay its fair share of improvements that benefit development. On August 25<sup>th</sup>, the City Council held a study session to review the findings and recommendations of the 2014 Draft Water Rate Study. The City Council provided direction to staff on various rate options. On September 29<sup>th</sup>, the City Council held a special meeting and public hearing to discuss the rate recommendations and authorized this 45-day public notice for a formal public hearing on the water rate changes on November 17<sup>th</sup>.

# How Do I Protest The Proposed Water and Wastewater Rate Changes?

The City Council has adopted a resolution establishing procedures in accordance with State law on how to protest fee changes, such as, water rates. Customers directly responsible for the payment of the rates and/or property owners, if different, may submit a written protest against the rate changes. If the City receives written protests from a majority of the affected customers and/or property owners of the identified parcels, then the proposed rate changes cannot be adopted by the City Council. It is important to follow these instructions in order for your protest to be valid:

- 1. The protest must be in writing and received by the City Clerk at or before the close of the public hearing on November 17, 2014. The protest must specifically identify what is being protested. Written protests may be mailed or personally delivered to the City Clerk at City Hall No.1 The Plaza, Sonoma, CA 95476.
- 2. All written protests must include the service address and utility account number.
- 3. The protest must be signed by the person who is listed on the utility account and is responsible for paying the utility bill and/or the property owner. The name of the signer should also be printed legibly. Only one protest will be counted for each account or property.

For more information, please contact the City Clerk at 707-933-2216 or gjohann@sonomacity.org

81

# **Current and Proposed Water Rate Changes**

The following chart shows the changes in proposed rates over the next five years. The first rate increase is proposed to be effective for bills issued after January 1, 2015. Future annual rate increases will be effective each January 1<sup>st</sup>.

Proposed Water Rates	Current Rates	January 1, 2015	January 1, 2016	January 1, 2017	January 1, 2018	January 1, 2019	Annually Beginning January 1, 2020
Fixed Monthly Service Cha	arge by Meter S	ize					
Meter Size							
5/8" or 3/4"	15.35	17.10	17.33	19.79	20.28	20.75	
5/8", 3/4" or 1"	18.42	17.10	17.33	19.79	20.28	20.75	
1 1/2"	24.58	26.09	26.43	30.18	30.94	31.66	
2"	30.72	32.60	33.03	37.72	38.67	39.57	
3"	46.07	48.90	49.55	56.58	58.01	59.35	
4"	76.78	81.50	82.58	94.30	96.68	98.92	
5"	56.57	60.05	60.83	69.47	71.22	72.87	All Rates
6"	122.96	130.52	132.24	151.02	154.82	158.41	tied to CPI Adjustment
Fire Line Meter Size							7.0,000
2"	5.27	5.87	5.95	6.80	6.97	7.13	
- 4"	10.53	11.74	11.89	13.58	13.92	14.24	
6"	21.07	23.48	23.78	27.16	27.85	28.49	
8"	31.60	35.22	35.68	40.75	41.77	42.74	
10"	42.13	46.95	47.57	54.32	55.69	56.98	
Water Use Charge for amo	ount of water us	ed in 1,000 g	allons per U	nit (1,000 =	1 unit)		
Base charge For all Users - Adjusted by Use Factor	5.10	5.23	5.43	5.74	6.07	6.33	
Residential	1.00	1.00	1.00	1.00	1.00	1.00	
Multi-Family Commercial	0.90 1.00	0.85 1.05	0.80 1.10	0.80 1.15	0.80 1.15	0.80 1.15	
Municipal	1.01	1.00	1.00	1.00	1.13	1.00	
Irrigation, Fire & Hydrant	1.32	1.32	1.32	1.32	1.32	1.32	· ·
Residential Conservation Tie				I	4.47	105	
1 1-6	3.59	3.59	3.73	3.94	4.17	4.35	
2 7 - 12		6.30	6.55	6.91	7.31	7.63	
3 13 - 18		7.07	7.35	7.76	8.21	8.56	
4 19+	7.63	10.21	10.62	11.22	11.86	12.38	All Rates
Multi-Family Conservation Ti			_				tied to CP
1 1 - 26		4.13	4.04	4.27	4.52	4.71	Adjustment
2 27 - 78		4.71	4.61	4.87	5.15	5.37	
3 79+	4.59	4.96	4.85	5.12	5.42	5.65	
Commercial Conservation Tie				ı			
1 1 - 25		5.21	5.68	6.27	6.63	6.92	
2 26 - 61	5.10	5.49	5.98	6.60	6.98	7.28	
3 62+	5.10	5.99	6.53	7.21	7.63	7.96	
Municipal	5.14	5.23	5.43	5.74	6.07	6.33	
Irrigation	6.73	6.90	7.17	7.57	8.01	8.36	
Fire & Hydrant	6.73	6.90	7.17	7.57	8.01	8.36	
Annual Change in Rates a		ry Costs		1		<u> </u>	1
Surcharge for Rate Changes in Wholesale Water	Annual adjus	tment to Water xcess of project				costs due to oth	er agency rate
	For all assau	nts outside of th	City of Com-	na a situ i lina ita	1E0/ addad t	o all Carrian	

#### What is the impact to Customers with the added and new conservation tiers?

The following shows a typical customer water use per month for residential, multi-family and commercial. These examples are of average or median current water use in each group per month. None of the examples includes use in the highest conservation tier, which would increase the billing. The actual amounts for each user will vary with different water user during the year and the conservation rate structure. Each "unit" of use is 1,000 gallons of water

	Proposed Rates								
Average Use	Current	2015	2016	2017	2018	2019			
Residential - 13 units use	\$ 79.66	\$ 84.34 6%	\$ 87.20 3%	\$ 93.66 7%	\$ 98.40 5%	\$ 102.22 4%			
Multi-Family - 12 units at 77 units use	\$ 384.15	\$ 381.76 -1%	\$ 374.73 -2%	\$ 398.74 6%	\$ 420.51 5%	\$ 437.85 4%			
Commercial - Restaurant at 61 units use	\$ 335.68	\$ 355.24 6%	\$ 384.82 8%	\$ 425.95 11%	\$ 449.55 6%	\$ 468.30 4%			

# Other fees and charges

**Connection Fees** – Current fees increased by change from 2007 by prior three year average percent increase in Engineering News Record Construction Cost Index for San Francisco Bay area for January 1, 2015. Future Fees are proposed to change with by the same index change each January.

	Current	i ioposeu
Front Footage Fee	\$ 49 per Lineal Foot	\$ 60 per Lineal Foot
Capacity Charge	\$ 8,000 per ESD	\$ 9,796 per ESD
Fire Service Only Capacity Charge	\$ 1,798 per excess flow	\$ 2,202 per excess flow

The equivalent single-family dwelling (ESD) values and ratios by different uses and used in calculation of the Capacity Charge are not proposed to be changed as currently adopted in Resolution 46-2007.

The charges for Installation of meters and lateral lines are proposed to change from current fixed and variable fees to variable fees based on actual cost of materials and installation by the City.

Fees for replacement of broken meter boxes and related damages are proposed to be variable fees based on actual cost of materials and installation by the City.

Fees and penalties for billing delinquencies and turn offs for non-payment are set in the specified in the City of Sonoma Fee Schedule.

All other fees and charges are proposed to remain the same as currently adopted in Resolution 46-2007.

#### Proposed future rate changes allowed under State Law

The water rates can be adjusted annually after January 1, 2020 in accordance with State law using the San Francisco Bay Area Consumer Price Index (CPI). It is anticipated that this annual adjustment would keep the rates in line with operating costs. Any annual CPI adjustment would be set by a resolution adopted by the City Council after a noticed public hearing on the rate adjustments.

Rates can also be changed to pass through increases in wholesale charges for water purchased from third-party agencies, such as the Sonoma County Water Agency, in accordance with State Government Code section 53756.

#### How can I find out more about the proposed rate changes?

The 2014 Water Rate Study can be read at <a href="www.sonomacity.org">www.sonomacity.org</a> or copies are available at City Hall. To find out how the proposed rates will affect your bill, you can call Utility Billing at 707-933-2237

82

# CITY OF SONOMA

#### RESOLUTION NO. 56 - 2014

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SONOMA, ADOPTING A PROGRAM OF WATER RATE AND FEE INCREASES FOR FISCAL YEAR 2014-15 THROUGH 2018-19 AND SETTING WATER RATES AND CONNECTION FEES TO BE EFFECTIVE JANUARY 1, 2015 AND EACH JANUARY 1<sup>ST</sup> THEREAFTER TO JANUARY 1, 2019

**WHEREAS**, the City Council has determined that certain changes in water rates and connection fees charged to customers of the City of Sonoma Water Utility are required to fund expenses incurred by the Water Utility, based on a report entitled, "City of Sonoma 2014 Water Rate Study;" and

**WHEREAS**, pursuant to Proposition 218, a notice of the public hearing to be held on November 17, 2014 was mailed on October 3, 2014 to all affected utility account holders and property owners; and

WHEREAS, on November 17, 2014 the City Council conducted a public hearing and gave every interested person an opportunity to make a written protest to the scheduled connection fee and rate changes as recommended in the City of Sonoma 2014 Water Rate Study, and the City Council has considered each protest; and

WHEREAS, the City Council finds that a majority written protest against the connection fee and rate changes as recommended and listed in the City of Sonoma 2014 Water Rate Study does not exist; and

**WHEREAS**, the City Council finds, based upon all evidence in the record, including without limitation the City of Sonoma 2014 Water Rate Study, that the proposed water rates and charges do not exceed the estimated amount required to provide water service to properties served by the Water Utility.

**NOW, THEREFORE, BE IT RESOLVED**, by the City Council of the City of Sonoma as follows:

#### Section 1. City of Sonoma 2014 Water Rate Study

The City of Sonoma 2014 Water Rate Study, including the recommended rate schedule and fees for Fiscal Years 2014-15 through 2018-19 prepared by Spillman and Associates and dated November 17, 2014, a copy of which is on file in the Office of the City Clerk, is hereby adopted.

#### Section 2. Water Rates and Charges

Pursuant to the authority granted in Section 13.04.120 and Sections 13.24.150 through 13.24.190 of the Municipal Code, the rates and charges set forth below are hereby adopted effective for meter usage reads for utility bills or development permit approvals issued after the specified date:

# (A) SERVICE CHARGE - Monthly billing period

	1/1/2015	1/1/2016	1/1/2017	1/1/2018	1/1/2019	Annually Beginning 1/1/2020
Meter Size						
5/8" or 3/4"	\$ 17.10	\$ 17.33	\$ 19.79	\$ 20.28	\$ 20.75	
5/8", 3/4" or 1"	\$ 17.10	\$ 17.33	\$ 19.79	\$ 20.28	\$ 20.75	
1 1/2"	\$ 26.09	\$ 26.43	\$ 30.18	\$ 30.94	\$ 31.66	
2"	\$ 32.60	\$ 33.03	\$ 37.72	\$ 38.67	\$ 39.57	
3"	\$ 48.90	\$ 49.55	\$ 56.58	\$ 58.01	\$ 59.35	
4"	\$ 81.50	\$ 82.58	\$ 94.30	\$ 96.68	\$ 98.92	All Rates tied
5"	\$ 60.05	\$ 60.83	\$ 69.47	\$ 71.22	\$ 72.87	to CPI
6"	\$ 130.52	\$ 132.24	\$ 151.02	\$ 154.82	\$ 158.41	Adjustments
Fire Line Meter Size		· · · · · · · · · · · · · · · · · · ·				
2"	\$ 5.87	\$ 5.95	\$ 6.80	\$ 6.97	\$ 7.13	
4"	\$ 11.74	\$ 11.89	\$ 13.58	\$ 13.92	\$ 14.24	
6"	\$ 23.48	\$ 23.78	\$ 27.16	\$ 27.85	\$ 28.49	
8"	\$ 35.22	\$ 35.68	\$ 40.75	\$ 41.77	\$ 42.74	
10"	\$ 46.95	\$ 47.57	\$ 54.32	\$ 55.69	\$ 56.98	

# (B) WATER USE RATES - Monthly billing period

#### 1. Base Water Use Rate:

	1/1/2015	1/1/2016	1/1/2017	1/1/2018	1/1/2019	Annually Beginning 1/1/2020
Base charge For all Users - Adjusted by Use Factor	\$ 5.23	\$ 5.43	\$ 5.74	\$ 6.07	\$ 6.33	All Rates tied to CPI Adjustments
Use Factors						
Residential	1.00	1.00	1.00	1.00	1.00	1.00
Multi-Family	0.85	0.80	0.80	0.80	0.80	0.80
Commercial	1.05	1.10	1.15	1.15	1.15	1.15
Municipal	1.00	1.00	1.00	1.00	1.00	1.00
Irrigation, Fire & Hydrant	1.32	1.32	1.32	1.32	1.32	1.32

# 2. Single Family Residential Detached Dwellings and Second Units (Water Use Rate per Unit of Use per Monthly Billing Period - 1 Unit = 1,000 gallons):

		1/1/2015	1/1/2016	1/1/2017	1/1/2018	1/1/2019	Annually Beginning 1/1/2020
Single Family Residential Detached Dwellings & Second Units Conservation Tiers and Rates - Amount of Monthly Water Use							
1	1-6 Kg	\$ 3.59	\$ 3.73	\$ 3.94	\$ 4.17	\$ 4.35	
2	7 - 12 Kg	\$ 6.30	\$ 6.55	\$ 6.91	\$ 7.31	\$ 7.63	All Rates tied to CPI
3	13 - 18 Kg	\$ 7.07	\$ 7.35	\$ 7.76	\$ 8.21	\$ 8.56	Adjustments
4	19+ Kg	\$10.21	\$10.62	\$11.22	\$11.86	\$12.38	

3. Multi-family Residential Dwellings (apartment, condominium/townhouse, mobile home, duplex, triplex, fourplex, live/work) Water Use Rate per Unit of Use per Monthly Billing Period - 1 Unit = 1,000 gallons):

1/1/2015 1/1/2016	1/1/2017	1/1/2018	1/1/2019	Annually Beginning 1/1/2020
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#### Multi-Family Conservation Tiers and Rates - Amount of Monthly Water Use

1	1 - 26 Kg	\$ 4.13	\$ 4.04	\$ 4.27	\$ 4.52	\$ 4.71	All Rates tied
2	27 - 78 Kg	\$ 4.71	\$ 4.61	\$ 4.87	\$ 5.15	\$ 5.37	to CPI
3	79+ Kg	\$ 4.96	\$ 4.85	\$ 5.12	\$ 5.42	\$ 5.65	Adjustments

4. Commercial - All Commercial, Institutional and Industrial

1/1/2015 1.	/1/2016	1/1/2017	1/1/2018	1/1/2019	Annually Beginning 1/1/2020
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#### Commercial Conservation Tiers and Rates - Amount of Monthly Water Use

1	1 - 25 Kg	\$ 5.21	\$ 5.68	\$ 6.27	\$ 6.63	\$ 6.92	All Rates tied
2	26 - 61 Kg	\$ 5.49	\$ 5.98	\$ 6.60	\$ 6.98	\$ 7.28	to CPI
3	62+ Kg	\$ 5.99	\$ 6.53	\$ 7.21	\$ 7.63	\$ 7.96	Adjustments

5. Other Customer Groups - Municipal - governments, institutional and certain non-profits; Irrigation Service (separately metered); Fire Service (separately metered) & Hydrant (temporary meter permits) – Monthly billing period

Municipal Irrigation Fire & Hydrant

	1/1/2015	1/1/2016	1/1/2017	1/1/2018	1/1/2019	Annually Beginning 1/1/2020
	\$ 5.23	\$ 5.43	\$ 5.74	\$ 6.07	\$ 6.33	All Rates tied to
	\$ 6.90	\$ 7.17	\$ 7.57	\$ 8.01	\$ 8.36	CPI
Ī	\$ 6.90	\$ 7.17	\$ 7.57	\$ 8.01	\$ 8.36	Adjustments

#### 6. Other Charges:

- a. For all accounts outside of the City of Sonoma city limits 15% will be added to Service and Water Use rates listed above.
- b. Water Use rates may be adjusted annually in accordance with Government Code Section 53756 to provide for a pass through of any increase in the cost of wholesale water purchased from another agency (such as the Sonoma County Water agency) that is in excess of those projected in the adopted 2014 Water Rate Study.
- c. Beginning on January 1, 2020, the Service and Water Use rates may be adjusted annually to provide for the increase, if any, in the San Francisco-Oakland-San Jose Consumer Price Index over the latest available prior 12-month period following notice and a public hearing in accordance with applicable law.

#### (C) CONNECTION CHARGES

The connection charge for a new service connection shall be the sum of: the front foot charge, meter charge and capacity charge. The front foot charge does not apply in cases where a main extension is required. All applicants must also provide a service lateral (pipe from main to meter) as noted in the City's Water Rate and Fee Schedule.

#### 1. Front Foot Charge

The front foot charge shall be \$ 60 per linear foot of frontage on the existing main located in the street. If the lot is bounded by more than one street with mains then, the front footage shall be the sum of the front foot distances on each main divided by the number of streets with mains. If the lot is an irregular lot, such as a flag lot or inner lot the minimum front foot distance shall be 100 feet.

The minimum front footage upon which the front foot charge is based shall be 100 feet.

This rate shall be adjusted annually as specified in section 4.e below.

#### 2. Meter and Lateral Installation Charges

The lateral is the pipeline extending from the main to the meter. The size and materials used shall be approved by the City. The lateral shall terminate in a meter box at a location approved by the City Water Department. The lateral shall be installed to meet City standards. The applicant shall hire or make arrangements for an underground contractor licensed by the State of California to install the lateral and meter box and other appurtenant and required equipment and devices (such as a backflow prevention device if deemed necessary by City).

The meter, however, shall be furnished and installed by the City. Applicant shall pay a meter charge for the meter and installation cost of materials, labor and equipment plus 20% administration charge as determined by the City at the time of installation.

#### Fire Service Only

In cases where required design fire flow for a given application for consumptive water service exceeds 1,000 gallons per minute (with 20 psi residual), the Capacity Charge shall be increased by \$ 2,202 per 100 gallons per minute of such excess.

In the cases where the applicant is only being provided fire flow and is not requesting water for consumptive purposes, the Capacity Charge shall be \$ 2,202 per 100 gallons per minute of design fire flow provided.

This rate shall be adjusted annually as specified in section 4.e below.

#### Capacity Charge

The capacity charge shall be calculated in terms of the demand of an equivalent single-family dwelling (ESD). An ESD is defined as the water demand for the average day of the maximum month for a typical single family detached home served by the City. The value of an ESD has been determined by the City to be 561 gallons per day. Capacity

charges for residential customers and commercial, institutional and industrial customers are calculated as shown below. Note, if at any time a customer's use exceeds the estimate used in determining the capacity charge, the City may require that the customer pay an additional capacity charge at the rate then in effect for each ESD of such excess. For connections made prior to June 6, 1999, base use shall be determined by the City from examination of historic water use records.

- a. The Base Capacity Charge per ESD is \$ 9,796 effective January 1, 2015 and adjusted annually as specified in section e below.
- b. Residential Accounts For residential customers, the capacity charge is calculated by multiplying the Base Capacity Charge by the factor in the following table times the number of equivalent dwelling units (ESDs) in that category.

If the area of a residential dwelling is larger than 4,000 square feet or if the area to be irrigated (excluding drip irrigation area) is greater than 2,500 square feet, the capacity charge shall be calculated as set forth in section d below

Type of Residential Dwelling

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Use Category	Capacity Charge Unit of Measurement	ESD Factor applied per unit of measurement to ESD Base Capacity Rate					
Single family detached dwellings	Dwelling Unit	1.00					
Townhouses/condominiums, duplexes, triplexes, and fourplexes	Dwelling Unit	0.80					
Mobile home	Dwelling Unit	0.51					
Apartment houses (5 or more dwelling units)	Dwelling Unit	0.47					
Second/accessory dwellings (dwelling on a parcel in undivided ownership	Dwelling Unit	0.47					

c. Non-Residential and Separately Metered Irrigation accounts

Commercial, institutional and industrial capacity charges shall be based on the following Equivalent Single Family Dwelling Unit ESD factors. The ESD rating for each application shall be computed by multiplying the applicable measurement units by the ESD factor(s). The capacity charge shall then be calculated by multiplying the total ESDs by the Base Capacity Charge per ESD.

If a single service connection serves both a residential and a non-residential use, or more than one non-residential use, the connection fees for each use shall be additive.

The minimum ESD for each separate non-residential water service connection shall be 1.0.

# Other Uses

Use Category	Capacity Charge Unit of Measurement	ESD Factor applied per unit of measurement to ESD Base Capacity Rate
Commercial	Connections	1.00
Auto dealers	Service bays	0.20
Bars and taverns	Design occupancy	0.04
Business and Professional Offices	1,000 sq. ft.	1.00
Car washes (self service)	Stalls	1.00
Car washes (except self service)	Each 561 gpd of estimated water use during peak month	1.00
Churches, halls and lodges	Connections	1.00
Dental offices	1,000 sq. ft.	1.00
Dry Cleaners	1,000 sq. ft.	1.50
Garages	Service bays	0.50
Hospitals - Convalescent	Beds	0.30
Hospitals - General	Beds	0.30
Hotels/motels	Sleeping rooms	0.50
	Kitchen facilities	0.50
	Manager's living quarters	1.00
	Washing machines (laundry)	1.00
	Other facilities	TBD – Section d
Laundromats	Washing machines	1.00
Other laundries	Each 561 gpd of estimated water use during peak month	1.00
Medical offices	1,000 sq. ft.	1.00
Restaurants - Dine-in	Design seating occupancy	0.20
Restaurants - Take-out	1,000 sq. ft.	2.50
Rest homes	Beds	0.30
Service stations	Gas pumps	0.50
	Service bays	0.20
Storage (self service)	1,000 sq. ft.	0.20
Theaters	Seats	0.05
Warehouse	1,000 sq. ft.	0.20
Other business and commercial development	1,000 sq. ft.	1.00
All industrial uses	Each 561 gpd estimated water use during peak month or 1,000 sq. ft. whichever is greater.	1.00
All other uses not specified above	By determining use during average day of peak month and dividing by 561 gpd.	TBD – Section d

- d. For ESD factors not specified above to be applied to the Base Capacity Charge, the ESD factor shall be determined by the City Manager or Designated Representative.
- e. The Front Footage, Fire Service and Capacity Charges shall be adjusted annually effective each January 1<sup>st</sup> by the Engineering News Record (ENR) Construction Cost Index for the San Francisco Bay area annual percent change from July to July averaged over the three prior years.

#### (D) BACKFLOW PREVENTION DEVICE INSPECTION CHARGES

In cases where a backflow prevention device is determined by the City to be required, applicant shall hire a qualified contractor and be responsible for installing same. An inspection fee shall be charged at the current hourly rate for Public Works Inspection to each such device (typical inspection time of one hour).

A backflow prevention device is required where there is a well on the property to be served and for irrigation services and certain commercial uses. Applicant shall verify with the City Manager or Designated Representative.

#### (E) REPLACEMENT OF BROKEN METER BOXES

Charges to replace meter box (broken by contractor) including, if required, removal and replacement of surrounding concrete structures if present, shall be cost of materials, labor and equipment plus 20% administrative charges at the time of the breakage and repair.

# (F) NEW RENTAL ACCOUNT DEPOSIT

A deposit of \$150 will be charged to all new accounts, residential or non-residential, when the person responsible for paying the water bill (applicant) is not the property owner. Said \$150 deposit shall be refunded if no final shutoff notices have been issued by the City for 24 months.

#### (G) CHANGED OR EXPANDED USE

Whenever new "development" as defined in California Government Code Section 65927 (residential or non-residential) occurs on a premise with an existing water service connection, additional connection fees shall be charged as applicable under this resolution.

Whenever an expansion or change in use (non-residential) occurs on a premise with an existing water service connection, which expansion or change in use substantially increases the amount of water used through said connection as determined by the City Manager or Designated Representative, additional connection fees shall be charged to account for said higher usage. Said additional connection fees shall be based on applicable ESD factors as provided in this resolution.

#### (H) PENALTIES

#### Late charge

Water bills are due 20 days from the date mailed.

A Water Service Delinquent Notice (2<sup>nd</sup> Notice) Fee shall apply when a customer's bill is not paid within 39 days of mailing of the original bill. This fee shall be as specified in the City of Sonoma Fee Schedule.

If a customer's bill is not paid within 47 days of mailing, the water service may be turned off. A "Water Service Turn Off" fee shall apply.

#### 2. Unauthorized use of City water

Unauthorized use of the City water at a meter will result in a penalty charge of \$75; other unauthorized uses of City water will result in a penalty charge of \$200. These penalty charges are in addition to the cost of water used and replacement of any damaged equipment.

# Section 3 All Other Charges

All other rates, charges, fees, penalties, etc. not provided for herein which are presently charged in connection with operation of the City of Sonoma Water Utility shall remain unchanged.

**PASSED, APPROVED AND ADOPTED** by the City Council of the City of Sonoma at its regular meeting held on November 17, 2014 by the following vote:

Ayes:

Barbose, Cook, Rouse, Brown, Gallian

Noes:

None

Absent:

None

Tom Rouse, Mayor

ATTEST:

Gay Johann

Assistant City Manager / City Clerk