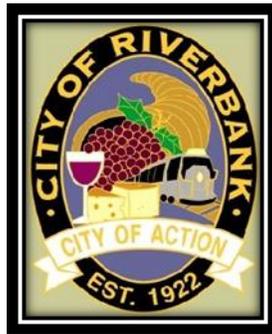


# City of Riverbank



## Water Rate Study

FINAL 6/18/2015



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Independent Public Finance Consultants  
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June 18, 2015

City of Riverbank  
6707 Third Street  
Riverbank, CA 95367

Attention: Michael Riddell, Deputy Development Services Director / Operations

Re: Water and Sewer Rate Study

Bartle Wells Associates is pleased to submit to the City of Riverbank the attached Water and Wastewater Rate Study. The report presents BWA's analysis of the capital and operating costs of the water utility. It lists the assumptions and rate design objectives used in BWA's analysis.

The report recommends updating rates to more accurately recover the costs of providing service to the City's water customers. Recommendations were developed with substantial input from City staff.

BWA finds that the water rates and charges proposed in our report to be based on the cost of service, follow generally accepted rate design criteria, and adhere to the substantive requirements of Proposition 218. BWA believes that the proposed rates are fair and reasonable to the City's customers.

We enjoyed working with you on the rate study and appreciate the assistance and cooperation of City staff throughout the project. Please contact us if you ever have any future questions about this study and the rate recommendations.

Sincerely,

BARTLE WELLS ASSOCIATES

A handwritten signature in black ink, appearing to read "Doug Dove", written in a cursive style.

Douglas Dove, PE, CIPFA  
President/Principal

## Rate Setting Legislation and Principles

In conducting this water rate study, Bartle Wells Associates (BWA) adheres to the Proposition 218 requirements as described in this section. Subsequent sections provide the detailed, cost of service basis for BWA's rate recommendations.

### Proposition 218

Proposition 218, the "Right to Vote on Taxes Act", was approved by California voters in November 1996 and is codified as Articles XIIC and XIID of the California Constitution. Proposition 218 establishes requirements for imposing or increasing property related taxes, assessments, fees and charges. For many years, there was no legal consensus on whether water and sewer rates met the definition of "property related fees". In July 2006, the California Supreme Court essentially confirmed that Proposition 218 applies to water rates.

BWA recommends that the City of Riverbank follow the procedural requirements of Proposition 218 for all water rate changes. These requirements include:

- **Noticing Requirement:** - The City must mail a notice of proposed rate increases to all affected property owners. The notice must specify the basis of the fee, the reason for the fee, and the date/time/location of a public rate hearing at which the proposed rates will be considered/adopted.
- **Public Hearing:** - The City must hold a public hearing prior to adopting the proposed rate increases. The public hearing must be held not less than 45 days after the required notices are mailed.
- **Rate Increases Subject to Majority Protest:** - At the public hearing, the proposed rate increases are subject to majority protest. If more than 50% of affected property owners submit written protests against the proposed rate increases, the increases cannot be adopted.

Proposition 218 also established a number of substantive requirements that are generally deemed to apply to utility service charges, including:

- **Cost of Service** - Revenues derived from the fee or charge cannot exceed the funds required to provide the service. In essence, fees cannot exceed the "cost of service".
- **Intended Purpose** - Revenues derived from the fee or charge can only be used for the purpose for which the fee was imposed.
- **Proportional Cost Recovery** - The amount of the fee or charge levied on any customer shall not exceed the proportional cost of service attributable to that customer.
- No fee or charge may be imposed for a service unless that service is used by, or immediately available to, the owner of the property. Standby charges shall be classified as "assessments" which are governed by Article 13D Section 4.

Charges for water, wastewater, and refuse collection are exempt from the additional voting requirements of Proposition 218 provided the charges do not exceed the cost of providing service and are adopted pursuant to procedural requirements of Proposition 218.

## Rate Development Principles

In reviewing the City's current water rates and finances, BWA used the following criteria in developing our recommendations:

1. *Revenue Sufficiency*: Rates should recover the annual cost of service and provide revenue stability.
2. *Rate Impact*: While rates are calculated to generate sufficient revenue to cover operating and capital costs, they should be designed to minimize, as much as possible, the impacts on ratepayers.
3. *Equitable*: Rates should be fairly allocated among all customer classes based on their estimated demand characteristics. Each user class only pays its proportionate share.
4. *Practical*: Rates should be simple in form and, therefore, adaptable to changing conditions, easy to administer and easy to understand.
5. *Provide Incentive*: Rates provide price signals which serve as indicators to conserve water and to use water efficiently.

### Background:

The City of Riverbank is located in Stanislaus County with a population of 23,149. The water division of the city is currently having to deal with one of the most severe droughts in the state of California's history. The city is mandated by the state to reduce water usage, thus affecting the revenues of the department. In addition, the city is planning to complete multiple capital improvement projects that will upgrade its current water system.

The city contracted with BWA to conduct a water rate analysis to determine a rate structure that fits the water division's financial needs.

## Current Water Service Rates:

The City of Riverbank currently charges customers a bimonthly flat fee based on meter size for up to 1,000 cubic feet (cf) of water use. If usage exceeds 1,000 cf in a bi-monthly period, a declining-block volumetric rate is applied. Customers are charged \$0.34 per 100 cf for the next 4,000 cf, \$0.33 for the next 34,000 cf, and \$.30 for all use above these levels. As you can see, the variable rate decreases as water usage increases, which is not considered a conservation-oriented billing structure. In light of the ongoing California Drought and recent water rate litigation, BWA recommends updating the current volumetric structure to a uniform volumetric rate moving forward. See **table 1** for the current water service charges.

**Table 1**

Current and Historical Water Service Charges  
City of Riverbank  
Water and Wastewater Rate Study

Minimum charge for 1,000 cubic feet for two months (bimonthly)								
Meter-Size	2002	2003	2004	2005	2006	2007	2008	2009
Residential								
5/8"	25.58	25.79	26.27	26.88	27.46	28.12	28.92	29.29
3/4"	25.58	25.79	26.27	26.88	27.46	28.12	28.92	29.29
1"	25.58	25.79	26.27	26.88	27.46	28.12	28.92	29.29
Apartments, Commercial, and Industrial								
1-1/2"	25.58	25.79	26.27	26.88	27.46	28.12	28.92	29.29
2"	32.03	32.30	32.91	33.68	34.41	35.24	36.24	36.70
3"	48.16	48.56	49.47	50.62	51.72	52.96	54.47	55.16
4"	66.54	67.09	68.35	69.94	71.46	73.18	75.27	76.23
8"	126.46	127.51	129.91	132.94	135.83	139.09	143.05	144.87
Outside City Limits								
1"	29.59	29.84	30.40	31.11	31.79	32.55	33.48	33.91
2"	43.49	43.85	44.67	45.71	46.70	47.82	49.18	49.81
Year-to-year-increase		0.8%	1.8%	2.3%	2.1%	2.3%	2.8%	1.3%

Volume rates for usage exceeding 1,000 cubic feet for two months (bimonthly)								
	2002	2003	2004	2005	2006	2007	2008	2009
Rates for water exceeding the 1,000 cubic foot minimum charge for the particular meter size (per 100 cubic feet)								
Next 4,000 cubic feet	0.29	0.29	0.30	0.31	0.31	0.32	0.33	0.34
Next 34,000 cubic feet	0.27	0.27	0.28	0.29	0.30	0.31	0.32	0.33
All additional Use in Period	0.25	0.25	0.25	0.26	0.27	0.28	0.29	0.30

## Proposed Water Rate Structure

The Proposed water rate structure is shown in **table 2**. This structure follows a uniform rate that charges customers based on consumption and meter size. The calculated base charges for each meter were derived using guidelines from the American Water Works Association. It is proposed that all customer classes move to this uniform rate structure.

**Table 2**

Proposed Water Rates

City of Riverbank

Water and Wastewater Rate Study

Monthly Base Charge by Meter Size	Flow Capacity (GPM) [1]	Meter Ratio	Projected Monthly Rate with Increases (\$)				
			FY2016	FY2017	FY2018	FY2019	FY2020
<b>Scenario: Drought Full CIP [2]</b>							
1 1/2 Inch and below	100	1.0	\$19.77	\$22.73	\$24.55	\$25.78	\$27.07
2 Inch	160	1.6	\$31.63	\$36.37	\$39.29	\$41.24	\$43.31
3 Inch	320	3.2	\$63.27	\$72.74	\$78.57	\$82.49	\$86.62
4 Inch and above	500	5.0	\$98.85	\$113.65	\$122.77	\$128.89	\$135.34
Volume Charge (per 100 cubic feet)							
Base			0.46	0.53	0.57	0.60	0.63
Drought Surcharge (Conservation Mandate)			-	0.07	0.16	0.28	0.30
Total Variable Charge			0.46	0.60	0.73	0.88	0.92

[1] Source: AWWA Manual M22, 2nd Edition, 2004

[2] Scenario 4: Drought Full CIP selected by city council

## Current Water Service Revenue:

As shown in **table 3**, water service charge revenue accounts for nearly 97% of all operating revenues. The other 3% is derived from backflow inspections, fines/forfeitures/penalties, interest income, and miscellaneous. A 1% increase year over year is assumed for fines/forfeitures/penalties as revenues increase. Additionally, a 0.5% increase in revenue for meter charges and volumetric charges is assumed due to growth. Revenue is projected to total \$1.72MM for FY2014/15.

**Table 3**

Budget FY2014/15

City of Riverbank

Water and Wastewater Rate Study

Budget FY2014/15		
<u>Revenues</u>		
Water Service Charges		
<i>Meter Charge Revenue Estimate</i>	1,149,000	67%
<i>Volumetric Revenue Estimate</i>	523,000	30%
Backflow Inspections	300	<1%
Fines, Forfeitures, Penalties	46,100	3%
Interest Income	2,400	0%
Misc. Revenues	500	<1%
<b>Total Operating Revenues</b>	<b>1,721,300</b>	<b>100%</b>

## Minimum Reserves

The water enterprise beginning fund balance for FY2014/15 totals about \$2,072,000. Reserve Fund targets are 50% of O&M and \$1,000,000 for capital projects. In order to reach these targets the City of Riverbank must increase rates. See **Table 4** for current fund balances for 2014/15.

**Table 4**

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Water Fund Balances FY2014/15  
City of Riverbank  
Water and Wastewater Rate Study

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<u>Reserve</u>	<u>Amount</u>
Fund 114: Water Fund	\$697,581
Fund 116: Capital Improvement Fund	395,475
<u>Fund 158: Water Connection Fund</u>	<u>979,339</u>
Total Reserves	\$2,072,395

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Note: These are the fund balances as of July 1, 2014  
Source: City of Riverbank Annual Operating Budget, FY2014/15

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## Capital Improvements

As summarized in **table 5**, the City of Riverbank has a number of water projects scheduled in the next five years. The Fund 116 and 157 water projects totaling \$6,486,000 are labeled as High Priority CIP and are funded in all rate scenarios analyzed. The full Water Division CIP totals \$13,038,000. Rate increases will help recoup the initial cost of the capital projects and their scheduled loan/bond payments.

**Table 5**

Water Capital Projects City of Riverbank Water and Wastewater Rate Study								
Water Utility	Project #	0	1	2	3	4	5	Total Projected Capital Cost FY2015-2020
		FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	
<b>Project Name</b>								
<b>High-Priority CIP</b>								
<b>Water Projects (Fund 116)</b>								
Central Avenue Water Line Installation	WTR-087	113,000						113,000
Line Replacement Third St. Alley Sierra/Patterson	WTR-075		89,000					89,000
Main Replacement Alley between 3rd and 8th	WTR-063		389,000					389,000
Water Conservation -Implementation of DMMs	WTR-078		25,000	25,000	25,000			75,000
Line Replacement Prospector's to Claribel/Roselle	WTR-074		105,000					105,000
Water Main - Oakdale Road	WTR-022		150,000					150,000
Novi Drive Well Site - Enclosure	WTR-077			300,000				300,000
Talbot/Kentucky Connection (1,330 LF of 12-in pipe)	WTR-079				515,000			515,000
Water Meters [1]		50,000						50,000
<b>Fund 116 Capital Cost</b>		<b>163,000</b>	<b>758,000</b>	<b>325,000</b>	<b>540,000</b>	<b>-</b>	<b>-</b>	<b>1,786,000</b>
<b>Water Connection Projects (Fund 157)</b>								
Water Meter Reading System [2]			4,700,000					4,700,000
<b>Fund 157 Capital Cost</b>		<b>-</b>	<b>4,700,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>4,700,000</b>
<b>Total High Priority CIP</b>		<b>163,000</b>	<b>5,458,000</b>	<b>325,000</b>	<b>540,000</b>	<b>-</b>	<b>-</b>	<b>6,486,000</b>
<b>Additional Water CIP</b>								
Mechanic shop with parts & equipment			500,000					500,000
Novi well enclosure for equipment and sound control			75,000					75,000
Water line replaced on Sierra from Patterson to SR 108			75,000					75,000
Water line installation 2800 Block to Santa Fe			50,000					50,000
Water line on 8th Topeka to SR 108			60,000					60,000
Water line on Claus from SR 108 to Santa Fe			75,000					75,000
12 in water line on Santa Fe from 8th to 4th Streets				325,000				325,000
12 in water line in Sierra Alley from 3rd to 8th Street				350,000				350,000
Water line in alley on Riverside from Corp yard to 4th St				325,000				325,000
Water line in Topeka Alley from 1st to Cannery Site				150,000				150,000
Water line on 7th to dead end.					75,000			75,000
Water line in alley on Orange from 2nd to Burneyville					100,000			100,000
Replace all transite water lines					1,250,000			1,250,000
Waterline on 7th from Nevada to Arizona					40,000			40,000
Loop all dead end waterline in Crossroads					500,000			500,000
Install pump to waste on 8th, River Heights & Jackson Wells					150,000			150,000
Install covers on 2nd St. storage tank motors						25,000		25,000
Install SCADA system antenna for 2nd St. storage tank						50,000		50,000
Paint 2nd St. Storage tank						50,000		50,000
Install covers on Crossroads storage tank motors						25,000		25,000
New block wall fences at Crossroads, Jackson & Pioneer wells						200,000		200,000
Install flushing valve on Lane Avenue							2,000	2,000
New chlorine pumps & analyzers at well sites							1,000,000	1,000,000
Install flushing valves or hydrants at all dead end systems							500,000	500,000
<b>Total Additional Water CIP</b>		<b>-</b>	<b>835,000</b>	<b>1,150,000</b>	<b>2,115,000</b>	<b>350,000</b>	<b>1,502,000</b>	<b>5,952,000</b>
<b>Total of all Capital Projects (Full CIP)</b>								<b>12,438,000</b>

Source: City of Riverbank 2014-2019 Capital Improvement Plan

[1] From City of Riverbank FY2014/15 Water Annual Budget, (Fund 114; Dept. 433; Account 707.119)

[2] Phone call with City Staff, 8/21/2014. Funding TBD.

## Projected Revenue and Expenses Without Rate Increases.

**Table 6** and **figure 1** project the revenue and expenses for the next five years under the status quo (No rate increases). Without making any changes in the rates, the City of Riverbank will run a deficit towards the end of FY2017/18 and will miss its reserve fund target by the end of FY2015/16. In order to further fund any capital projects, the city must raise rates.

**Figure 1**

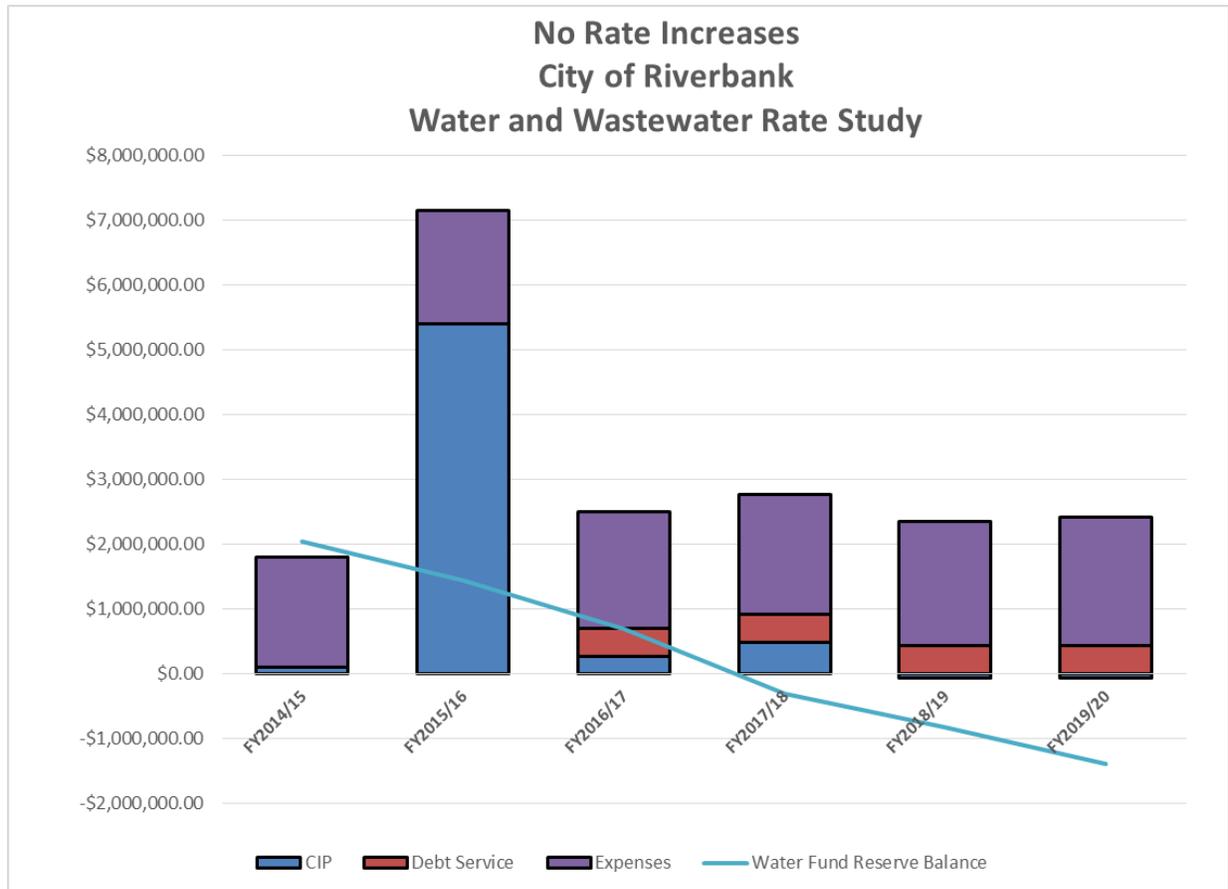


Table 6

## No Rate Increases

	Budget	Annual % Increase	Five Year Projection (Prop 218)				
	2014/15		2015/16	2016/17	2017/18	2018/19	2019/20
<b>BEGINNING BALANCE</b>							
Water Fund Total	2,072,395		2,040,000	1,442,000	700,000	(307,000)	(824,000)
Typical SFR Bill (17 ccf (12,700 gal) per month)	19.75		19.75	19.75	19.75	19.75	19.75
<b>Fixed Charge (for 1,000 ccf of water) [1]</b>	<b>14.65</b>		<b>14.65</b>	<b>14.65</b>	<b>14.65</b>	<b>14.65</b>	<b>14.65</b>
<b>Base Variable Charge (per 100 ccf in excess) [2]</b>	<b>0.34</b>		<b>0.34</b>	<b>0.34</b>	<b>0.34</b>	<b>0.34</b>	<b>0.34</b>
<b>Revenues</b>							
Water Service Charges							
<i>Meter Charge Revenue Estimate</i>	1,149,000	0.5%	1,155,000	1,161,000	1,167,000	1,173,000	1,179,000
<i>Volumetric Revenue Estimate</i>	523,000	0.5%	526,000	529,000	532,000	535,000	538,000
Backflow Inspections	300		1,000	1,000	1,000	1,000	1,000
Fines, Forfeitures, Penalties	46,100	1%	47,000	48,000	49,000	50,000	51,000
Interest Income [3]	2,400		3,000				
Misc. Revenues	500		1,000	1,000	1,000	1,000	1,000
<b>Total Operating Revenues</b>	<b>1,721,000</b>		<b>1,733,000</b>	<b>1,740,000</b>	<b>1,750,000</b>	<b>1,760,000</b>	<b>1,770,000</b>
<b>Debt Proceeds</b>							
Loan Issue FY2016			4,800,000				
<b>Total Financing Revenue</b>			<b>4,800,000</b>				
<b>Total Revenue</b>	<b>\$1,721,000</b>		<b>\$6,533,000</b>	<b>\$1,740,000</b>	<b>\$1,750,000</b>	<b>\$1,760,000</b>	<b>\$1,770,000</b>
<b>Expenses</b>							
Water Collection							
Employee Salaries	300,900	3%	310,000	319,000	329,000	339,000	349,000
Employee Benefits	158,400	3%	163,000	168,000	173,000	178,000	183,000
Supplies and Materials	37,250	4%	39,000	41,000	43,000	45,000	47,000
Utilities	300,000	5%	315,000	331,000	348,000	365,000	383,000
Services	193,000	3%	199,000	205,000	211,000	217,000	224,000
Communications	1,000		1,000	1,000	1,000	1,000	1,000
Misc. Expenses and Allowances	60,000	4%	62,000	64,000	67,000	70,000	73,000
Meter Replacements	55,000		55,000	55,000	55,000	55,000	55,000
Transfers Out Management Fee	530,900	3%	547,000	563,000	580,000	597,000	615,000
Transfers Out Misc.	51,500		52,000	52,000	52,000	52,000	52,000
<b>Total Water Operations</b>	<b>1,688,000</b>		<b>\$1,743,000</b>	<b>\$1,799,000</b>	<b>\$1,859,000</b>	<b>\$1,919,000</b>	<b>\$1,982,000</b>
<b>Net Operating Revenues</b>	<b>33,000</b>		<b>(\$10,000)</b>	<b>(\$59,000)</b>	<b>(\$109,000)</b>	<b>(\$159,000)</b>	<b>(\$212,000)</b>
<b>Water Debt Service</b>							
Loan Issue FY 2016 [4]				429,000	429,000	429,000	429,000
<b>Total Annual Debt Service</b>				<b>\$429,000</b>	<b>\$429,000</b>	<b>\$429,000</b>	<b>\$429,000</b>
<b>Debt Service Coverage [5]</b>				<b>(0.14)</b>	<b>(0.25)</b>	<b>(0.37)</b>	<b>(0.49)</b>
<b>Water Capital</b>							
Fund 116 Expenditures	163,000		758,000	325,000	540,000		
Fund 157 Expenditures			4,700,000				
Transfers In [6]	(51,700)		(55,000)	(55,000)	(55,000)	(55,000)	(55,000)
<b>Total Capital Expenditures</b>	<b>\$111,000</b>		<b>\$5,403,000</b>	<b>\$270,000</b>	<b>\$485,000</b>	<b>(\$55,000)</b>	<b>(\$55,000)</b>
<b>ENDING BALANCE</b>							
Water Fund Total	\$2,040,000		\$1,442,000	\$700,000	(\$307,000)	(\$824,000)	(\$1,394,000)
<b>Target Balance [6]</b>	<b>\$1,844,000</b>		<b>\$1,872,000</b>	<b>\$1,900,000</b>	<b>\$1,930,000</b>	<b>\$1,960,000</b>	<b>\$1,991,000</b>
	yes		no	no	no	no	no

Source: Budget FY2014/15, Audit FYE 2013, and Capital Improvement Program FY2014-2019

[1] Minimum charge for 1,000 cubic feet for 2 months (bi-monthly) for 5/8"-1" residential meters is \$29.29. Water usage exceeding 1,000 cubic feet is \$.34 per 100 cubic ft.

[2] Assumes same rate structure for all years.

[3] Interest Income is 1% of the Beginning Fund 116 Balance if fund balance is positive.

[4] \$4,800,000, 15-year loan with semi-annual payments and an interest rate of 4%

[5] Net operating revenue (less financing revenue) must equal at least 1.2x total annual debt service to fulfill Debt Service Coverage

[6] Includes 'Transfers In' and 'Interest Income' revenue. Assumes \$51,700 for FY2014/15 and \$55,000 for FY2015-2017.

[7] Reserve Fund targets are 50% of O&M and \$1,000,000 for capital projects

## Consumption

**Table 7** outlines the historical and projected consumption with and without the Governor's mandated reduction (32% from Riverbank's FY2012-FY2014 consumption levels). With the mandated reduction, significant rate increases are required to make up for the drop in usage to maintain funding for operations and capital improvement projects.

**Table 7**

Historical and Projected Consumption (ccf)  
City of Riverbank  
Water and Wastewater Rate Study

Projection <b>with</b> Governor's mandate (32% Reduction)									
	Historical			Budget	Projection				
	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Variable[1]	1,448,366	1,456,305	1,711,369	1,538,680	1,046,302	1,051,534	1,056,792	1,062,076	1,067,386
Fixed (under 1000 ccf)	344,202	340,733	376,389	390,180	392,131	394,092	396,062	398,042	400,033
Total[2]	1,792,568	1,797,038	2,087,758	1,928,860	1,438,433	1,445,625	1,452,854	1,460,118	1,467,418

Projection <b>without</b> Governor's mandate									
	Historical			Budget	Projection				
	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Variable	1,448,366	1,456,305	1,711,369	1,538,680	1,546,373	1,554,105	1,561,876	1,569,685	1,577,534
Fixed (under 1000 ccf)	344,202	340,733	376,389	390,180	392,131	394,092	396,062	398,042	400,033
Total[2]	1,792,568	1,797,038	2,087,758	1,928,860	1,938,504	1,948,197	1,957,938	1,967,727	1,977,566

[1] Projected consumption is based on the Governor's mandated 32% reduction.

[2] A 0.5% increase in growth is assumed for both fixed and variable consumption.

## Cash Flow Projections and Scenarios

Detailed below are four rate scenarios based on the level of capital improvement projects the city selects and the drought impacts. See **table 8** and **figure 2** for an overview of the variable rates among the 4 scenarios:

**Scenario 1: High Priority CIP Only:** Funds the Fund 116 and 157 projects with rate increases, a loan and a bond issuance. Does not factor in the Governor’s 32% conservation mandate.

**Scenario 2: Full CIP:** Funds all capital improvement projects through rate increases, a loan, and multiple bond issuances. Does not factor in the Governor’s 32% conservation mandate.

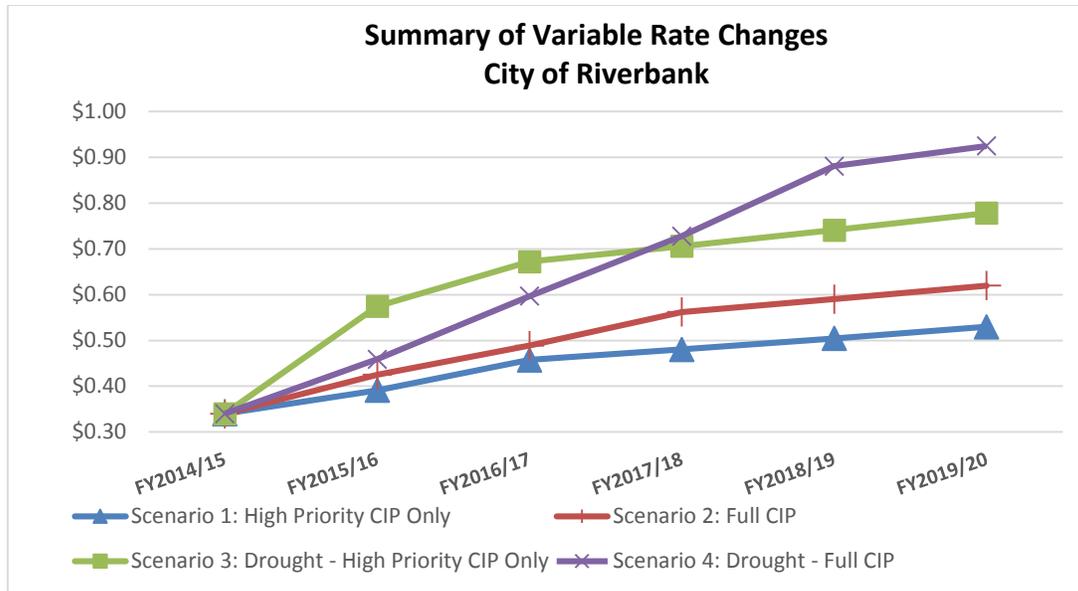
**Scenario 3: Drought – High Priority CIP Only:** Funds the Fund 116 and 157 projects with rate increases, a loan and a bond issuance. **A drought surcharge is initiated to recoup lost revenue due to Governor’s conservation mandate of 32%.**

**Scenario 4: Drought – Full CIP:** Funds all capital improvement projects through rate increases, a loan, and multiple bond issuances. **A drought surcharge is initiated to recoup lost revenue due to Governor’s conservation mandate of 32%.**

**Table 8**

<b>Summary of Variable Rate Changes (\$)</b>						
	FY2014/15	FY2015/16	FY2016/17	FY2017/18	FY2018/19	FY2019/20
Scenario 1: High Priority CIP Only	\$ 0.34	\$ 0.39	\$ 0.46	\$ 0.48	\$ 0.50	\$ 0.53
Scenario 2: Full CIP	\$ 0.34	\$ 0.43	\$ 0.49	\$ 0.56	\$ 0.59	\$ 0.62
Scenario 3: Drought - High Priority CIP Only	\$ 0.34	\$ 0.39	\$ 0.46	\$ 0.48	\$ 0.50	\$ 0.53
<i>Drought Surcharge</i>	-	\$ 0.18	\$ 0.21	\$ 0.23	\$ 0.24	\$ 0.25
<i>Total</i>	\$ 0.34	\$ 0.57	\$ 0.67	\$ 0.71	\$ 0.74	\$ 0.78
Scenario 4: Drought - Full CIP	\$ 0.34	\$ 0.43	\$ 0.49	\$ 0.56	\$ 0.59	\$ 0.62
<i>Drought Surcharge</i>	-	\$ 0.03	\$ 0.11	\$ 0.17	\$ 0.29	\$ 0.31
<i>Total</i>	\$ 0.34	\$ 0.46	\$ 0.60	\$ 0.73	\$ 0.88	\$ 0.92

**Figure 2**



### Scenario 1: High Priority CIP Only:

This scenario involves completing the Fund 116 and 157 High Priority water projects. The expenditures for the Fund 116 and 157 water projects will occur from FY2014/15 to FY2017/18 and will total \$6,486,000. As shown in **table 9**, rates will increase from the current \$0.34 per 100 cubic feet in 2015/16 to \$0.53 per 100 cubic feet in 2019/20. The fixed charge for the first 1,000 cubic feet of water will also increase starting from \$14.65 in FY14/15 to \$22.81 in FY2019/20.

This rate increase will fund the High Priority water projects and bring the city's water fund balance above the reserve fund targets by FY2019/20. The Fund 157 Water Connection Project will be financed through a 15-year loan issued in FY2015/16. Semi-annual payments for that loan will begin in FY2016/17 and will total \$429,000 each year.

**Figure 3**

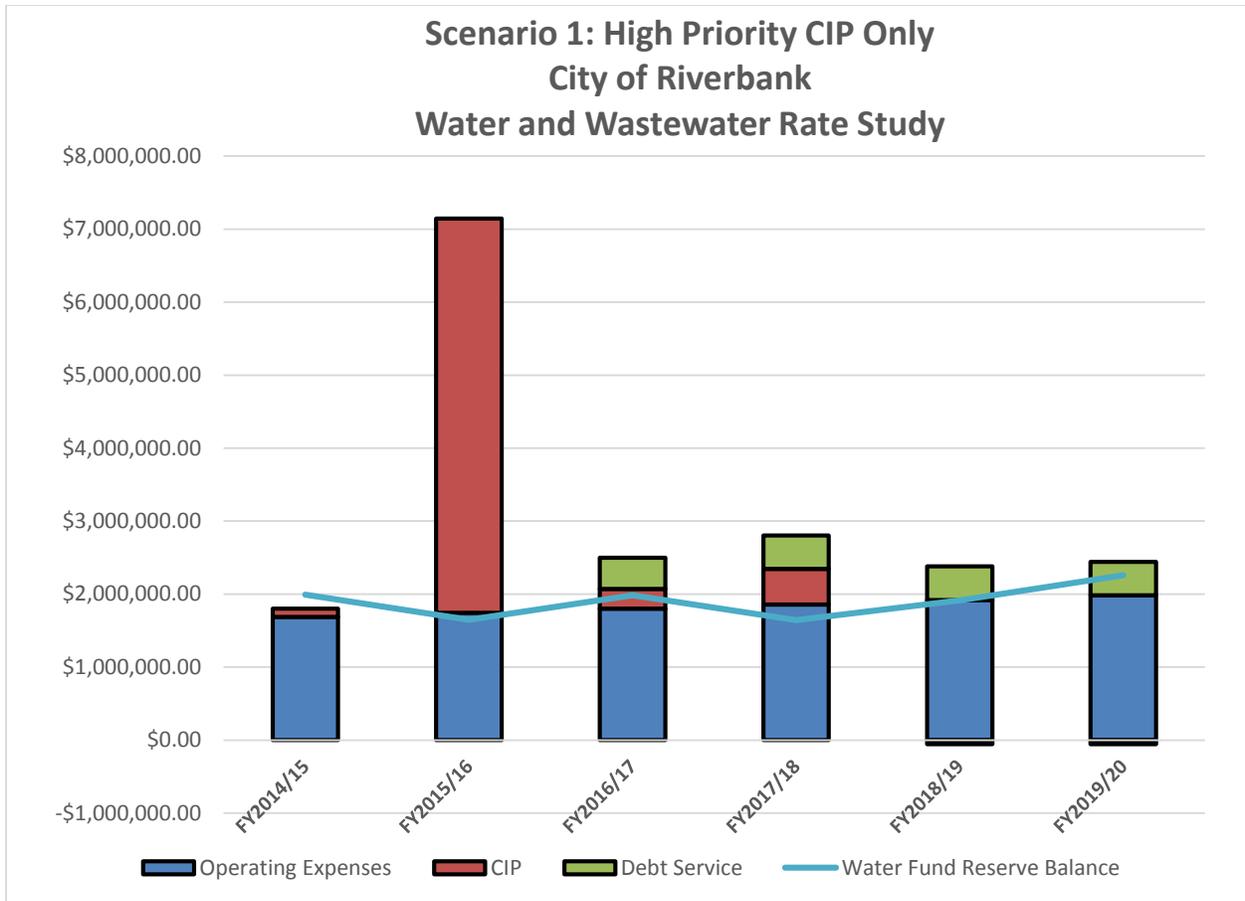


Table 9

## Scenario 1

	Budget	Annual % Increase	Five Year Projection (Prop 218)				
	2014/15		2015/16	2016/17	2017/18	2018/19	2019/20
<b>Typical SFR Bill (17 ccf (12,700 gal) per month)</b>	<b>19.75</b>		<b>21.94</b>	<b>24.80</b>	<b>25.79</b>	<b>26.82</b>	<b>27.91</b>
<b>Year Over Year % Increase to SFR Bill</b>			<b>11%</b>	<b>13%</b>	<b>4%</b>	<b>4%</b>	<b>4%</b>
<b>Fixed Charge (for 1,000 ccf of water) [1]</b>	<b>14.65</b>		<b>16.84</b>	<b>19.70</b>	<b>20.69</b>	<b>21.72</b>	<b>22.81</b>
<b>Base Variable Charge (per 100 cubic feet) [2]</b>	<b>0.34</b>		<b>0.39</b>	<b>0.46</b>	<b>0.48</b>	<b>0.50</b>	<b>0.53</b>
<b>% Change in Total Variable Charge</b>			<b>15.0%</b>	<b>17.0%</b>	<b>5.0%</b>	<b>5.0%</b>	<b>5.0%</b>
<i>Projected Water Consumption (ccf)</i>			<b>1,546,373</b>	<b>1,554,105</b>	<b>1,561,876</b>	<b>1,569,685</b>	<b>1,577,534</b>
<b>Revenues</b>							
<b>Water Service Charges</b>							
<i>Meter Charge Revenue Estimate</i>	1,149,000	0.5%	1,327,000	1,559,000	1,645,000	1,735,000	1,830,000
<i>Volumetric Revenue Estimate</i>	523,000	0.5%	604,000	710,000	749,000	790,000	833,000
Backflow Inspections	300		1,000	1,000	1,000	1,000	1,000
Fines, Forfeitures, Penalties	46,100	1%	47,000	48,000	49,000	50,000	51,000
Interest Income [3]	2,400		20,000	16,000	20,000	16,000	19,000
Misc. Revenues	500		1,000	1,000	1,000	1,000	1,000
<b>Total Operating Revenues</b>	<b>1,721,300</b>		<b>2,000,000</b>	<b>2,335,000</b>	<b>2,465,000</b>	<b>2,593,000</b>	<b>2,735,000</b>
<b>Debt Proceeds</b>							
Loan Issue FY2016			4,800,000				
Bond Issue FY2016				500,000			
<b>Total Financing Revenue</b>			<b>4,800,000</b>	<b>500,000</b>			
<b>Total Revenue</b>	<b>\$1,721,300</b>		<b>\$6,800,000</b>	<b>\$2,835,000</b>	<b>\$2,465,000</b>	<b>\$2,593,000</b>	<b>\$2,735,000</b>
<b>Expenses</b>							
<b>Water Collection</b>							
Employee Salaries	300,900	3%	310,000	319,000	329,000	339,000	349,000
Employee Benefits	158,400	3%	163,000	168,000	173,000	178,000	183,000
Supplies and Materials	37,250	4%	39,000	41,000	43,000	45,000	47,000
Utilities	300,000	5%	315,000	331,000	348,000	365,000	383,000
Services	193,000	3%	199,000	205,000	211,000	217,000	224,000
Communications	1,000		1,000	1,000	1,000	1,000	1,000
Misc. Expenses and Allowances	60,000	4%	62,000	64,000	67,000	70,000	73,000
Meter Replacements	55,000		55,000	55,000	55,000	55,000	55,000
Transfers Out Management Fee	530,900	3%	547,000	563,000	580,000	597,000	615,000
Transfers Out Misc.	51,500		52,000	52,000	52,000	52,000	52,000
<b>Total Water Operations</b>	<b>\$1,687,950</b>		<b>\$1,743,000</b>	<b>\$1,799,000</b>	<b>\$1,859,000</b>	<b>\$1,919,000</b>	<b>\$1,982,000</b>
<b>Net Operating Revenues</b>	<b>\$33,350</b>		<b>\$257,000</b>	<b>\$1,036,000</b>	<b>\$606,000</b>	<b>\$674,000</b>	<b>\$753,000</b>
<b>Water Debt Service</b>							
Loan Issue FY 2016 [4]				429,000	429,000	429,000	429,000
Bond Issue FY 2017 [5]					32,000	32,000	32,000
<b>Total Annual Debt Service</b>				<b>\$429,000</b>	<b>\$461,000</b>	<b>\$461,000</b>	<b>\$461,000</b>
<b>Debt Service Coverage [6]</b>				<b>1.25</b>	<b>1.41</b>	<b>1.57</b>	<b>1.76</b>
<b>Water Capital</b>							
Fund 116 Expenditures	163,000		758,000	325,000	540,000		
Fund 157 Expenditures			4,700,000				
Transfers In [7]	(51,700)		(55,000)	(55,000)	(55,000)	(55,000)	(55,000)
<b>Total Capital Expenditures</b>	<b>\$111,300</b>		<b>\$5,403,000</b>	<b>\$270,000</b>	<b>\$485,000</b>	<b>-\$55,000</b>	<b>-\$55,000</b>
<b>ENDING BALANCE</b>							
<b>Water Fund Total</b>	<b>\$1,994,445</b>		<b>\$1,648,000</b>	<b>\$1,985,000</b>	<b>\$1,645,000</b>	<b>\$1,913,000</b>	<b>\$2,260,000</b>
<b>Target Balance [8]</b>	<b>\$1,844,000</b>		<b>\$1,872,000</b>	<b>\$1,900,000</b>	<b>\$1,930,000</b>	<b>\$1,960,000</b>	<b>\$1,991,000</b>
	yes		no	yes	no	no	yes

Source: Budget FY2014/15, Audit FYE 2013, and Capital Improvement Program FY2014-2019

[1] Minimum charge for 1,000 gallons for 2 months (bi-monthly) for 5/8"-1" residential meters is \$29.29. Water usage exceeding 1,000 gallons is \$.34 per 100 cubic feet.

[2] Volumetric Rate is Uniform for FY2016 onwards

[3] Interest Income is 1% of the Beginning Fund Balance if fund balance is positive.

[4] \$4,800,000, 15-year loan with semi-annual payments and an interest rate of 4%

[5] \$1,000,000, 30-year loan with semi-annual payments and an interest rate of 5%

[6] Net operating revenue (less financing revenue) must equal at least 1.2x total annual debt service to fulfill Debt Service Coverage

[7] Includes "Transfers In" and "Interest Income" revenue. Assumes \$51,700 for FY2014/15 and \$55,000 for FY2015-2017.

[8] Reserve Fund targets are 50% of O&M and \$1,000,000 for capital projects

### Scenario 2: Full CIP

This scenario involves completing all capital improvement projects listed in **table 4**. In order to fund the projects properly, rates will need to increase from the current rate of \$0.34 per 100 cubic feet in FY2014/15 to \$0.63 per 100 cubic feet in FY2019/20, as seen in **table 10**. The fixed charge for the first 1,000 cubic feet of water will also rise the same rate in each year as the variable rates starting from \$14.65 in FY14/15 to \$27.07 in FY2019/20.

Rate increases alone will not be enough to fund all capital improvement projects. Loans and Bonds will be issued to fund a portion of the projects. Under this scenario, a 15-year loan totaling \$4,800,000 will be secured in FY2015/16 to finance the Fund 157 Water Connection Project. Semi-annual payments for that loan will begin in FY2016/2017 and will total \$429,000 each year. A 30-year bond will be issued in FY2016/17 totaling \$4,600,000 to fund part of the water division capital improvement project. Semi-annual payments for that loan will begin in FY2017/2018 and will total \$298,000 each year. To fully fund the Water Division capital improvement project, another 30-year bond will be issued totaling \$1,000,000. Semi-annual payments for this bond will begin in FY2019/2020 and will total \$65,000 each year. Under this scenario, the Water Fund balance will stay above the target balance by FY2016/17 and the city will have a surplus by FY2019/20. While rates do increase more than the 'High Priority CIP' scenario, the advantage in this scenario is that all capital improvement projects are funded.

**Figure 4**

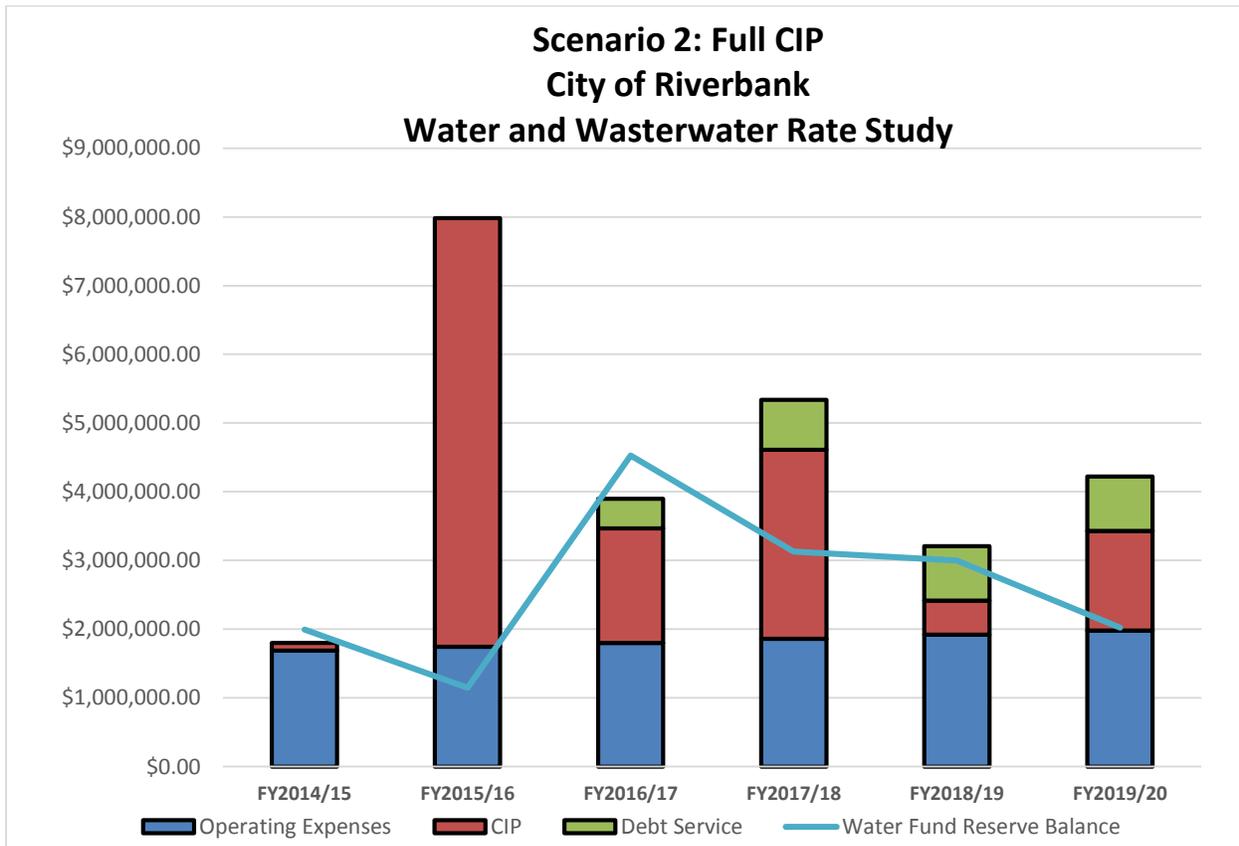


Table 10

## Scenario 2

	Budget	Annual % Increase	Five Year Projection (Prop 218)				
	2014/15		2015/16	2016/17	2017/18	2018/19	2019/20
<b>Typical SFR Bill (17 ccf (12,700 gal) per month)</b>	<b>19.75</b>		<b>26.66</b>	<b>30.65</b>	<b>33.11</b>	<b>34.76</b>	<b>36.50</b>
<b>Year Over Year % Increase to SFR Bill</b>			<b>35%</b>	<b>15%</b>	<b>8%</b>	<b>5%</b>	<b>5%</b>
<b>Fixed Charge (for 1,000 ccf of water) [1]</b>	<b>14.65</b>		<b>19.77</b>	<b>22.74</b>	<b>24.56</b>	<b>25.78</b>	<b>27.07</b>
<b>Base Variable Charge (per 100 cubic feet) [2]</b>	<b>0.34</b>		<b>0.46</b>	<b>0.53</b>	<b>0.57</b>	<b>0.60</b>	<b>0.63</b>
<b>% Change in Total Variable Charge</b>			<b>35.0%</b>	<b>15.0%</b>	<b>8.0%</b>	<b>5.0%</b>	<b>5.0%</b>
<i>Projected Water Consumption (ccf)</i>			<b>1,546,373</b>	<b>1,554,105</b>	<b>1,561,876</b>	<b>1,569,685</b>	<b>1,577,534</b>
<b>Revenues</b>							
<b>Water Service Charges</b>							
<i>Meter Charge Revenue Estimate</i>	1,149,000	0.5%	1,557,000	1,798,000	1,951,000	2,058,000	2,171,000
<i>Volumetric Revenue Estimate</i>	523,000	0.5%	709,000	819,000	889,000	938,000	990,000
Backflow Inspections	300		1,000	1,000	1,000	1,000	1,000
Fines, Forfeitures, Penalties	46,100	1%	47,000	48,000	49,000	50,000	51,000
Interest Income [3]	2,400		20,000	11,000	48,000	35,000	36,000
Misc. Revenues	500		1,000	1,000	1,000	1,000	1,000
<b>Total Operating Revenues</b>	<b>1,721,300</b>		<b>2,335,000</b>	<b>2,678,000</b>	<b>2,939,000</b>	<b>3,083,000</b>	<b>3,250,000</b>
<b>Debt Proceeds</b>							
Loan Issue FY2016			4,800,000				
Bond Issue FY2017				4,600,000			
Bond Issue FY2019					1,000,000		
<b>Total Financing Revenue</b>			<b>4,800,000</b>	<b>4,600,000</b>	<b>1,000,000</b>		
<b>Total Revenue</b>	<b>\$1,721,300</b>		<b>\$7,135,000</b>	<b>\$7,278,000</b>	<b>\$3,939,000</b>	<b>\$3,083,000</b>	<b>\$3,250,000</b>
<b>Expenses</b>							
<b>Water Collection</b>							
Employee Salaries	300,900	3%	310,000	319,000	329,000	339,000	349,000
Employee Benefits	158,400	3%	163,000	168,000	173,000	178,000	183,000
Supplies and Materials	37,250	4%	39,000	41,000	43,000	45,000	47,000
Utilities	300,000	5%	315,000	331,000	348,000	365,000	383,000
Services	193,000	3%	199,000	205,000	211,000	217,000	224,000
Communications	1,000		1,000	1,000	1,000	1,000	1,000
Misc. Expenses and Allowances	60,000	4%	62,000	64,000	67,000	70,000	73,000
Meter Replacements	55,000		55,000	55,000	55,000	55,000	55,000
Transfers Out Management Fee	530,900	3%	547,000	563,000	580,000	597,000	615,000
Transfers Out Misc.	51,500		52,000	52,000	52,000	52,000	52,000
<b>Total Water Operations</b>	<b>\$1,687,950</b>		<b>\$1,743,000</b>	<b>\$1,799,000</b>	<b>\$1,859,000</b>	<b>\$1,919,000</b>	<b>\$1,982,000</b>
<b>Net Operating Revenues</b>	<b>\$33,350</b>		<b>\$5,392,000</b>	<b>\$5,479,000</b>	<b>\$2,080,000</b>	<b>\$1,164,000</b>	<b>\$1,268,000</b>
<b>Water Debt Service</b>							
Loan Issue FY 2016 [4]				429,000	429,000	429,000	429,000
Bond Issue FY2016 [5]					298,000	298,000	298,000
Bond Issue FY2019 [6]						65,000	65,000
<b>Total Annual Debt Service</b>				<b>\$429,000</b>	<b>\$727,000</b>	<b>\$792,000</b>	<b>\$792,000</b>
<b>Debt Service Coverage [7]</b>				<b>2.05</b>	<b>1.49</b>	<b>1.47</b>	<b>1.60</b>
<b>Water Capital</b>							
Fund 116 Expenditures	163,000		758,000	325,000	540,000		
Fund 157 Expenditures			4,700,000				
Water Division CIP			835,000	1,150,000	2,115,000	350,000	1,502,000
Transfers In [8]	(51,700)		(55,000)	(55,000)	(55,000)	(55,000)	(55,000)
<b>Total Capital Expenditures</b>	<b>\$111,300</b>		<b>\$6,238,000</b>	<b>\$1,420,000</b>	<b>\$2,600,000</b>	<b>\$295,000</b>	<b>\$1,447,000</b>
<b>ENDING BALANCE</b>							
<b>Water Fund Total</b>	<b>\$1,994,050</b>		<b>\$1,148,050</b>	<b>\$4,778,050</b>	<b>\$3,531,050</b>	<b>\$3,608,050</b>	<b>\$2,637,050</b>
<b>Target Balance [9]</b>	<b>\$1,844,000</b>		<b>\$1,872,000</b>	<b>\$1,900,000</b>	<b>\$1,930,000</b>	<b>\$1,960,000</b>	<b>\$1,991,000</b>
	yes		no	yes	yes	yes	yes

Source: Budget FY2014/15, Audit FYE 2013, and Capital Improvement Program FY2014-2019

[1] Minimum charge for 1,000 cubic feet for 2 months (bi-monthly) for 5/8"-1" residential meters is \$29.29. Water usage exceeding 1,000 cubic feet is \$.34 per 100 cubic feet.

[2] Volumetric Rate is Uniform for FY2016 onwards

[3] Interest Income is 1% of the Beginning Fund Balance if fund balance is positive.

[4] \$4,800,000, 15-year loan with semi-annual payments and an interest rate of 4%

[5] \$4,600,000, 30-year bond with semi-annual payments and an interest rate of 5%

[6] \$2,500,000, 30-year bond with semi-annual payments and an interest rate of 5%

[7] Net operating revenue (less financing revenue) must equal at least 1.2x total annual debt service to fulfill Debt Service Coverage

[8] Includes 'Transfers In' and 'Interest Income' revenue. Assumes \$51,700 for FY2014/15 and \$55,000 for FY2015-2017.

[9] Reserve Fund targets are 50% of O&M and \$1,000,000 for capital projects

### Scenario 3: Drought – High Priority CIP

This scenario is based on a 32% reduction in water usage from 2013 levels due to the governor’s mandate. Rates will increase from the current rate of \$0.34 per 100 cubic feet in FY2014/15 to \$0.78 per 100 cubic feet in FY2019/20, as seen in **table 11**. The Fund 157 Water Connection Project will be funded by a 15-year \$4,800,000 loan that will be secured in FY2015/16. Semi-annual payments for that loan will begin in FY2016/2017 and will total \$429,000 each year. The rate increases will not be enough to cover the costs of the Fund 116 Water Projects. In order to cover these costs, a 30-year bond will be issued in FY2016/17 totaling \$500,000. Under Scenario 3, the target fund will be met by FY2019/20.

Figure 5

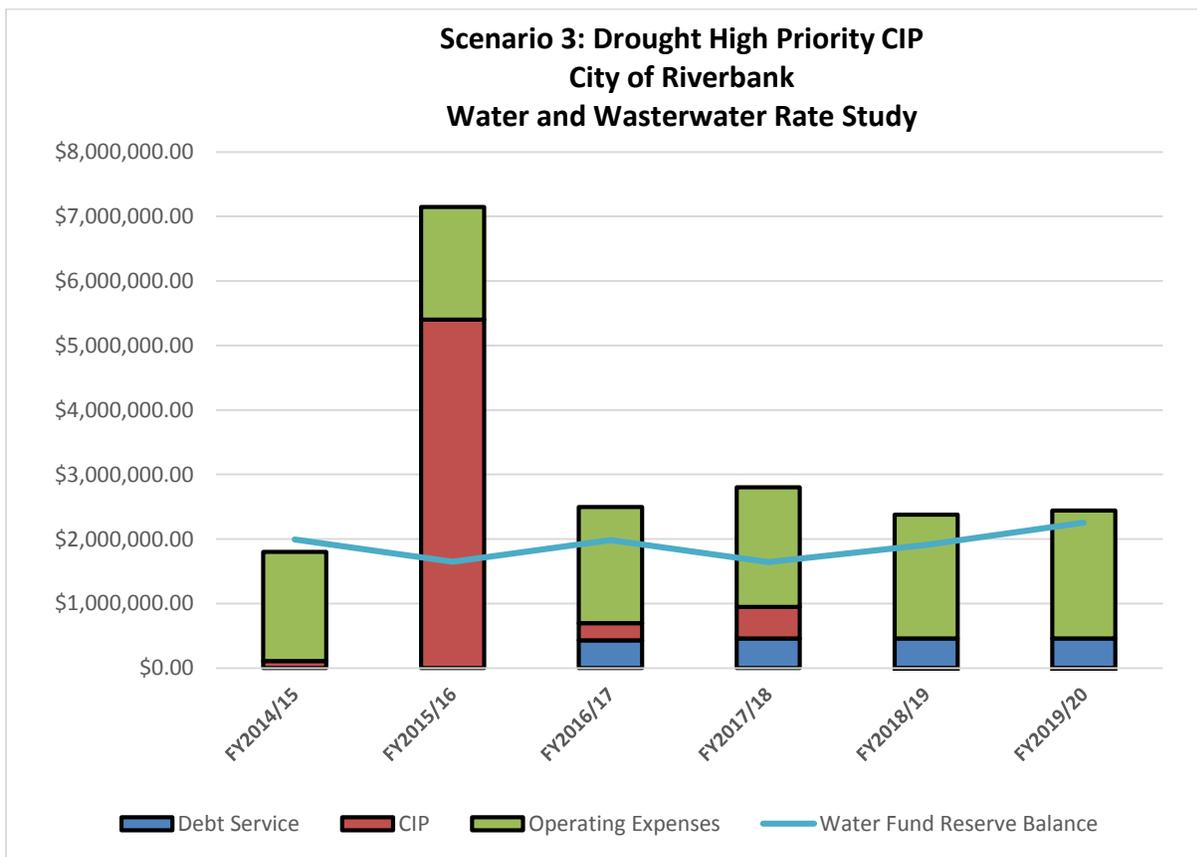


Table 11

## Scenario 3

	Budget	Annual % Increase	Five Year Projection (Prop 218)				
	2014/15		2015/16	2016/17	2017/18	2018/19	2019/20
Typical SFR Bill (17 ccf (12,700 gal) per month)	19.75		25.46	29.79	31.28	32.84	34.48
Year Over Year % Increase to SFR Bill			29%	17%	5%	5%	5%
Fixed Charge (for 1,000 ccf of water) [1]	14.65		16.84	19.70	20.69	21.72	22.81
<b>Variable Charge (per 100 cubic feet)</b>							
	<i>Base</i>		0.39	0.46	0.48	0.50	0.53
	<i>Drought Surcharge (Conservation Mandate)</i>		0.18	0.21	0.23	0.24	0.25
	<i>Total Variable Charge [2]</i>	0.34	0.57	0.67	0.71	0.74	0.78
% Change in Total Variable Charge			69%	17%	5%	5%	5%
<i>Projected Water Consumption (ccf)</i>			1,046,302	1,051,534	1,056,792	1,062,076	1,067,386
<b>Revenues</b>							
<i>Water Service Charges</i>							
Meter Charge Revenue Estimate	1,149,000	0.5%	1,327,000	1,559,000	1,645,000	1,735,000	1,830,000
<i>Volumetric Revenue Estimate [3]</i>							
	<i>Base</i>		411,000	483,000	510,000	538,000	568,000
	<i>Drought Surcharge (Conservation Mandate)</i>		192,000	226,000	238,000	251,000	264,000
	<i>Total Variable Charge</i>	523,000	603,000	709,000	748,000	789,000	832,000
Backflow Inspections	300		1,000	1,000	1,000	1,000	1,000
Fines, Forfeitures, Penalties	46,100	1%	47,000	48,000	49,000	50,000	51,000
Interest Income [4]	2,400		20,000	16,000	20,000	16,000	19,000
Misc. Revenues	500		1,000	1,000	1,000	1,000	1,000
<i>Total Operating Revenues</i>	1,721,300		1,999,000	2,334,000	2,464,000	2,592,000	2,734,000
<b>Debt Proceeds</b>							
Loan Issue FY2016			4,800,000				
Bond Issued FY2016				500,000			
<i>Total Financing Revenue</i>			4,800,000	500,000			
<b>Total Revenue</b>	<b>\$1,721,300</b>		<b>\$6,799,000</b>	<b>\$2,834,000</b>	<b>\$2,464,000</b>	<b>\$2,592,000</b>	<b>\$2,734,000</b>
<b>Expenses</b>							
<i>Water Collection</i>							
Employee Salaries	300,900	3%	310,000	319,000	329,000	339,000	349,000
Employee Benefits	158,400	3%	163,000	168,000	173,000	178,000	183,000
Supplies and Materials	37,250	4%	39,000	41,000	43,000	45,000	47,000
Utilities	300,000	5%	315,000	331,000	348,000	365,000	383,000
Services	193,000	3%	199,000	205,000	211,000	217,000	224,000
Communications	1,000		1,000	1,000	1,000	1,000	1,000
Misc. Expenses and Allowances	60,000	4%	62,000	64,000	67,000	70,000	73,000
Meter Replacements	55,000		55,000	55,000	55,000	55,000	55,000
Transfers Out Management Fee	530,900	3%	547,000	563,000	580,000	597,000	615,000
Transfers Out Misc.	51,500		52,000	52,000	52,000	52,000	52,000
<b>Total Water Operations</b>	<b>\$1,687,950</b>		<b>\$1,743,000</b>	<b>\$1,799,000</b>	<b>\$1,859,000</b>	<b>\$1,919,000</b>	<b>\$1,982,000</b>
<b>Net Operating Revenues</b>	<b>\$33,350</b>		<b>\$5,056,000</b>	<b>\$1,035,000</b>	<b>\$605,000</b>	<b>\$673,000</b>	<b>\$752,000</b>
<b>Water Debt Service</b>							
Loan Issue FY 2016 [5]				429,000	429,000	429,000	429,000
Bond Issued FY2016 [6]					32,000	32,000	32,000
<b>Total Annual Debt Service</b>				<b>\$429,000</b>	<b>\$461,000</b>	<b>\$461,000</b>	<b>\$461,000</b>
<b>Debt Service Coverage [7]</b>				<b>2.41</b>	<b>1.41</b>	<b>1.57</b>	<b>1.75</b>
<b>Water Capital</b>							
Fund 116 Expenditures	163,000		758,000	325,000	540,000		
Fund 157 Expenditures			4,700,000				
Transfers In [8]	(51,700)		(55,000)	(55,000)	(55,000)	(55,000)	(55,000)
<b>Total Capital Expenditures</b>	<b>\$111,300</b>		<b>\$5,403,000</b>	<b>\$270,000</b>	<b>\$485,000</b>	<b>(\$55,000)</b>	<b>(\$55,000)</b>
<b>ENDING BALANCE</b>							
<b>Water Fund Total</b>	<b>\$1,994,050</b>		<b>\$1,647,050</b>	<b>\$1,983,050</b>	<b>\$1,642,050</b>	<b>\$1,909,050</b>	<b>\$2,255,050</b>
<b>Target Balance [9]</b>	<b>\$1,844,000</b>		<b>\$1,872,000</b>	<b>\$1,900,000</b>	<b>\$1,930,000</b>	<b>\$1,960,000</b>	<b>\$1,991,000</b>
	yes		no	yes	no	no	yes

Source: Budget FY2014/15, Audit FYE 2013, and Capital Improvement Program FY2014-2019

[1] Minimum charge for 1,000 gallons for 2 months (bi-monthly) for 5/8"-1" residential meters is \$29.29. Water usage exceeding 1,000 gallons is \$.33 per 100 cubic feet.

[2] Volumetric Rate is Uniform for FY2016 onwards

[3] Based on a 32% reduction in consumption due to Governor's mandate.

[4] Interest Income is 1% of the Beginning Fund Balance if fund balance is positive.

[5] \$4,800,000, 15-year loan with semi-annual payments and an interest rate of 4%

[6] \$1,000,000, 30-year bond issued with semi-annual payments and an interest rate of 5%

[7] Net operating revenue (less financing revenue) must equal at least 1.2x total annual debt service to fulfill Debt Service Coverage

[8] Includes 'Transfers In' and 'Interest Income' revenue. Assumes \$51,700 for FY2014/15 and \$55,000 for FY2015-2017.

[9] Reserve Fund targets are 50% of O&M and \$1,000,000 for capital projects

### Scenario 4: Drought – Full CIP

This scenario assumes a 32% reduction in variable water usage due to the governor’s conservation mandate. As seen in **table 12**, the volumetric rate increases from \$0.34 per 100 cubic feet in FY14/15 to \$0.92 per 100 cubic feet in 2019/20.

Rate increases alone will not be adequate to fund the costs of all the capital improvement projects and will require financing to complete. A 15-year loan totaling \$4,800,000 will be secured in FY2015/16 to finance the Fund 157 Water Connection Project. Semi-annual payments for that loan will begin in FY2016/2017 and will total \$429,000 each year. A 30-year bond will be issued in FY2016/17 totaling \$4,600,000 to fund part of the Water Division capital improvement projects. Semi-annual payments for that loan will begin in FY2016/2017 and will total \$298,000 each year. To fully fund the Water Division capital improvement projects, another 30-year bond will be issued totaling \$1,000,000. Semi-annual payments for this bond will begin in FY2019/20120 and will total \$65,000 each year.

Under Scenario 4, the target fund balance will be met by 2016/17. The budget also has the City of Riverbank running a surplus by FY2019/20.

**Figure 6**

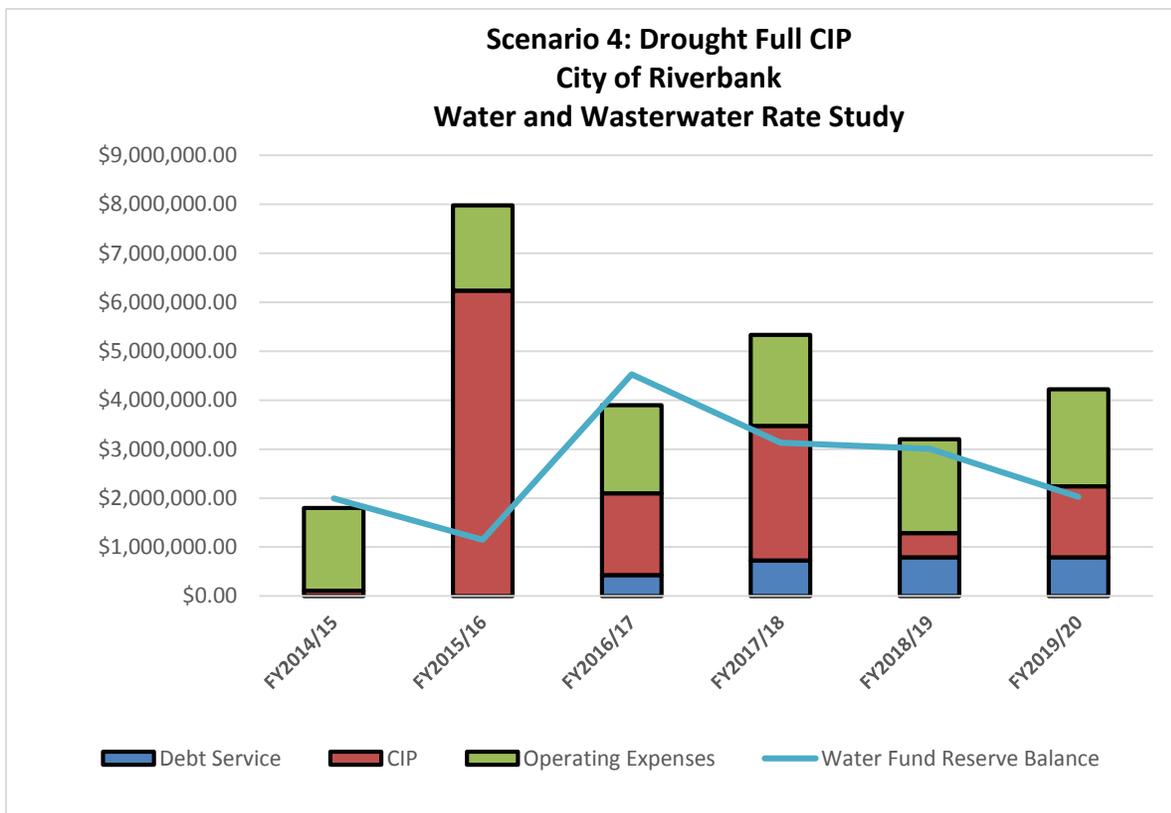


Table 12

## Scenario 4

	Budget 2014/15	Annual % Increase	Five Year Projection (Prop 218)				
			2015/16	2016/17	2017/18	2018/19	2019/20
<b>BEGINNING BALANCE</b>							
Water Fund Total	2,072,000		1,994,000	921,000	4,359,000	2,990,000	3,061,000
<b>Typical SFR Bill (17 ccf (12,700 gal) per month)</b>	<b>18.73</b>		<b>25.28</b>	<b>29.90</b>	<b>33.29</b>	<b>36.35</b>	<b>38.17</b>
<b>Year Over Year % Increase to SFR Bill</b>			<b>35%</b>	<b>18%</b>	<b>11%</b>	<b>9%</b>	<b>5%</b>
Fixed Charge (for 1,000 ccf of water) [1]	14.65		19.77	22.74	24.56	25.78	27.07
<b>Variable Charge (per 100 cubic feet)</b>							
Base			0.46	0.53	0.57	0.60	0.63
Drought Surcharge (Conservation Mandate)			-	0.07	0.16	0.28	0.30
Total Variable Charge[2]	0.34		0.46	0.60	0.73	0.88	0.92
% Change in Total Variable Charge			35%	30%	22%	21%	5%
<i>Projected Variable Consumption (ccf)</i>			1,046,302	1,051,534	1,056,792	1,062,076	1,067,386
<b>Revenues</b>							
Water Service Charges							
Meter Charge Revenue Estimate	1,149,000	0.5%	1,557,000	1,798,000	1,951,000	2,058,000	2,171,000
<b>Volumetric Revenue Estimate [3]</b>							
Base			482,000	557,000	604,000	637,000	672,000
Drought Surcharge (Conservation Mandate)			-	72,000	167,000	300,000	317,000
Total Variable Charge	523,000	0.5%	482,000	629,000	771,000	937,000	989,000
Backflow Inspections	300		1,000	1,000	1,000	1,000	1,000
Fines, Forfeitures, Penalties	46,100	1%	47,000	48,000	49,000	50,000	51,000
Interest Income [4]	2,400		20,000	9,000	44,000	30,000	31,000
Misc. Revenues	500		1,000	1,000	1,000	1,000	1,000
Total Operating Revenues	1,721,300		2,108,000	2,486,000	2,817,000	3,077,000	3,244,000
<b>Debt Proceeds</b>							
Loan Issue FY2016			4,800,000				
Bond Issue FY2017				4,600,000			
Bond Issue FY2018					1,000,000		
Total Financing Revenue			4,800,000	4,600,000	1,000,000		
<b>Total Revenue</b>	<b>\$1,721,300</b>		<b>\$6,908,000</b>	<b>\$7,086,000</b>	<b>\$3,817,000</b>	<b>\$3,077,000</b>	<b>\$3,244,000</b>
<b>Expenses</b>							
<i>Water Collection</i>							
Employee Salaries	300,900	3%	310,000	319,000	329,000	339,000	349,000
Employee Benefits	158,400	3%	163,000	168,000	173,000	178,000	183,000
Supplies and Materials	37,250	4%	39,000	41,000	43,000	45,000	47,000
Utilities	300,000	5%	315,000	331,000	348,000	365,000	383,000
Services	193,000	3%	199,000	205,000	211,000	217,000	224,000
Communications	1,000		1,000	1,000	1,000	1,000	1,000
Misc. Expenses and Allowances	60,000	4%	62,000	64,000	67,000	70,000	73,000
Meter Replacements	55,000		55,000	55,000	55,000	55,000	55,000
Transfers Out Management Fee	530,900	3%	547,000	563,000	580,000	597,000	615,000
Transfers Out Misc.	51,500		52,000	52,000	52,000	52,000	52,000
<b>Total Water Operations</b>	<b>\$1,687,950</b>		<b>\$1,743,000</b>	<b>\$1,799,000</b>	<b>\$1,859,000</b>	<b>\$1,919,000</b>	<b>\$1,982,000</b>
<b>Net Operating Revenues</b>	<b>\$33,350</b>		<b>\$5,165,000</b>	<b>\$5,287,000</b>	<b>\$1,958,000</b>	<b>\$1,158,000</b>	<b>\$1,262,000</b>
<b>Water Debt Service</b>							
Loan Issue FY2016 [5]				429,000	429,000	429,000	429,000
Bond Issue FY2016 [6]					298,000		298,000
Bond Issue FY2018 [7]						65,000	65,000
<b>Total Annual Debt Service</b>				<b>\$429,000</b>	<b>\$727,000</b>	<b>\$792,000</b>	<b>\$792,000</b>
<b>Debt Service Coverage [8]</b>				<b>1.60</b>	<b>2.69</b>	<b>1.46</b>	<b>1.59</b>
<b>Water Capital</b>							
Fund 116 Expenditures	163,000		758,000	325,000	540,000		
Fund 157 Expenditures			4,700,000				
Water Division CIP			835,000	1,150,000	2,115,000	350,000	1,502,000
Transfers In [9]	(51,700)		(55,000)	(55,000)	(55,000)	(55,000)	(55,000)
<b>Total Capital Expenditures</b>	<b>\$111,300</b>		<b>\$6,238,000</b>	<b>\$1,420,000</b>	<b>\$2,600,000</b>	<b>\$295,000</b>	<b>\$1,447,000</b>
<b>ENDING BALANCE</b>							
<b>Water Fund Total</b>	<b>\$1,994,000</b>		<b>\$921,000</b>	<b>\$4,359,000</b>	<b>\$2,990,000</b>	<b>\$3,061,000</b>	<b>\$2,084,000</b>
<b>Target Balance [10]</b>	<b>\$1,844,000</b>		<b>\$1,872,000</b>	<b>\$1,900,000</b>	<b>\$1,930,000</b>	<b>\$1,960,000</b>	<b>\$1,991,000</b>
	yes		no	yes	yes	yes	yes

Source: Budget FY2014/15, Audit FYE 2013, and Capital Improvement Program FY2014-2019

[1] Minimum charge for 1,000 cubic feet for 2 months (bi-monthly) for 5/8"-1" residential meters is \$29.29. Water usage exceeding 1,000 cubic feet is \$.34 per 100 cubic feet.

[2] Volumetric Rate is Uniform for FY2016 onwards

[3] Based on a 32% reduction in consumption due to Governor's mandate.

[4] Interest Income is 1% of the Beginning Fund Balance if fund balance is positive.

[5] \$4,800,000, 15-year loan with semi-annual payments and an interest rate of 4%

[6] \$4,600,000, 30-year bond with semi-annual payments and an interest rate of 5%

[7] \$1,000,000, 30-year bond with semi-annual payments and an interest rate of 5%

[8] Net operating revenue (less financing revenue) must equal at least 1.2x total annual debt service to fulfill Debt Service Coverage

[9] Includes 'Transfers In' and 'Interest Income' revenue. Assumes \$51,700 for FY2014/15 and \$55,000 for FY2015-2017.

[10] Reserve Fund targets are 50% of O&M and \$1,000,000 for capital projects

## Water Enterprise Cost Analysis

A cost of allocation is provided in **table 13** for FY2020. As shown, the fixed revenue generated from fixed charges will cover \$1.9MM (70%) of annual costs, the remaining costs of \$832,000 (30%) will be covered by variable revenue from volume charges. The city council has selected to move forward with scenario 4: Drought Full CIP. The surplus funds that remain after covering the costs shown below will go towards building the target fund balance and capital projects.

**Table 13**

Water Enterprise Cost of Service Analysis			
City of Riverbank			
Water and Wastewater Rate Study			
<u>FY2020 [1]</u>			
Fixed Revenue	2,171,000		70%
Variable Revenue	<u>989,000</u>		<u>30%</u>
Total Meter/Variable Revenue [2]	3,160,000		100%
<u>Operating Expenses</u>			
<i>Water Collection</i>	<u>Fixed</u>	<u>Variable</u>	<u>Total</u>
Employee Salaries	244,300	104,700	349,000
Employee Benefits	128,100	54,900	183,000
Supplies and Materials	32,900	14,100	47,000
Utilities	268,100	114,900	383,000
Services	156,800	67,200	224,000
Communications	700	300	1,000
Misc. Expenses and Allowances	51,100	21,900	73,000
Meter Replacements	38,500	16,500	55,000
Transfers Out Management Fee	430,500	184,500	615,000
Transfers Out Misc.	<u>36,400</u>	<u>15,600</u>	<u>52,000</u>
Subtotal	1,387,400	594,600	1,982,000
FY2020 Total Debt Service Payments	<u>554,400</u>	<u>237,600</u>	<u>792,000</u>
Total Costs	1,941,800	832,200	2,774,000
<u>Percent Allocation</u>	<u>70%</u>	<u>30%</u>	<u>100%</u>

[1] Based on city council selected scenario: Drought Full CIP, **table 12**

[2] Remaining Balance used for target fund balance build up and capital projects

## Summary of Scenarios and Recommendations

The City of Riverbank must raise its rates in order to fund projects. The city currently has one of the lowest rates in the area and has not increased rates since 2009. BWA recommends using the combination of rate increases and financing to pursue its capital improvement projects. Regardless of the level of capital improvement projects the city decides to pursue, BWA recommends taking a more conservative approach and follow scenarios 3 and 4 to reflect the Governor’s mandate. The city should anticipate a drop in usage and impose a drought surcharge as seen in **Table 14** to fully recoup the loss in revenue.

After discussion amongst city council and city officials, the city of Riverbank has selected to move forward with scenario 4: Drought – Full CIP. The city understands the need to improve its current infrastructure while maintaining financial stability. This scenario will accomplish both tasks.

**Table 14**

<b>Summary of Variable Rate Changes (\$)</b>						
	FY2014/15	FY2015/16	FY2016/17	FY2017/18	FY2018/19	FY2019/20
Scenario 1: High Priority CIP Only	\$ 0.34	\$ 0.39	\$ 0.46	\$ 0.48	\$ 0.50	\$ 0.53
Scenario 2: Full CIP	\$ 0.34	\$ 0.46	\$ 0.53	\$ 0.57	\$ 0.60	\$ 0.63
Scenario 3: Drought - High Priority CIP Only	\$ 0.34	\$ 0.39	\$ 0.46	\$ 0.48	\$ 0.50	\$ 0.53
<i>Drought Surcharge</i>	-	\$ 0.18	\$ 0.21	\$ 0.23	\$ 0.24	\$ 0.25
<i>Total</i>	\$ 0.34	\$ 0.57	\$ 0.67	\$ 0.71	\$ 0.74	\$ 0.78
Scenario 4: Drought - Full CIP	\$ 0.34	\$ 0.46	\$ 0.53	\$ 0.57	\$ 0.60	\$ 0.63
<i>Drought Surcharge</i>	-	\$ -	\$ 0.07	\$ 0.16	\$ 0.28	\$ 0.30
<i>Total</i>	\$ 0.34	\$ 0.46	\$ 0.60	\$ 0.73	\$ 0.88	\$ 0.92

<b>Summary of Variable Rate Changes (%)</b>						
	FY2014/15	FY2015/16	FY2016/17	FY2017/18	FY2018/19	FY2019/20
Scenario 1: High Priority CIP Only	-	15.0%	17.0%	5.0%	5.0%	5.0%
Scenario 2: Full CIP	-	35.0%	15.0%	8.0%	5.0%	5.0%
Scenario 3: Drought - High Priority CIP Only	-	69.0%	17.0%	5.0%	5.0%	5.0%
Scenario 4: Drought - Full CIP	-	35.0%	30.0%	22.0%	21.0%	5.0%

<b>Summary of Base Rate Changes</b>						
	FY2014/15	FY2015/16	FY2016/17	FY2017/18	FY2018/19	FY2019/20
Scenario 1: High Priority CIP Only	\$ 14.65	\$ 16.84	\$ 19.70	\$ 20.69	\$ 21.72	\$ 22.81
Scenario 2: Full CIP	\$ 14.65	\$ 19.77	\$ 22.74	\$ 24.56	\$ 25.78	\$ 27.07
Scenario 3: Drought - High Priority CIP Only	\$ 14.65	\$ 16.84	\$ 19.70	\$ 20.69	\$ 21.72	\$ 22.81
Scenario 4: Drought - Full CIP	\$ 14.65	\$ 19.77	\$ 22.74	\$ 24.56	\$ 25.78	\$ 27.07

## Rate Survey

Water rate survey of the surrounding area.

Figure 7

