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City of Buellton
Water Rate Study
Final Report

July 2016

City of Buellton
140 West Highway 246
Buellton CA 93427

WC Project No. WC-029

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Section 1: Introduction

1.1 Background and Objectives

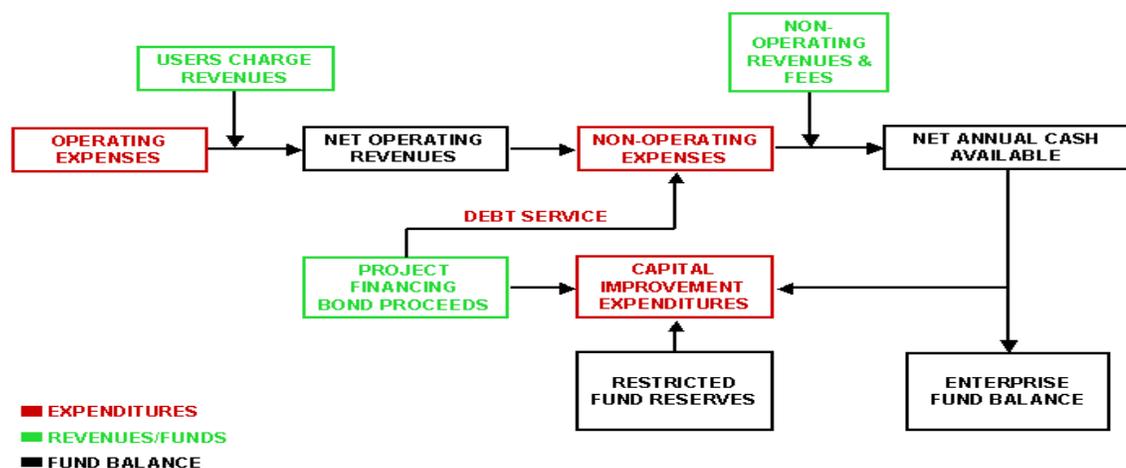
The City of Buellton (City) provides water service to approximately 1,500 residents and businesses in the City. The City's water system currently consists of approximately 150,200 feet of distribution lines, 2000 feet of supply lines, 5 groundwater wells, 2 water treatment plants, and 3 reservoirs. The City has not performed comprehensive rate studies since 1996 but has adjusted rates periodically.

The City desires to assess the applicability of its current rate structures, develop rate structures that provide equity to all customer classes, and provide adequate financial stability from ongoing water conservation efforts. In addition, the recommended rate structures must comply with the requirements of Proposition 218.

The City's current water rates have a fixed monthly charge that vary according to meter size and a variable rate based on consumption. Due to the prolonged drought, the City's residential and commercial customers have responded to voluntary and mandatory water conservation measures by reducing their water consumption. Because the City's current water rates have a component based on water consumption, the City's utility revenues have been adversely affected. Potential mandatory water reductions are expected to further reduce City revenues. To mitigate these effects, the rate study should balance between its water conservation policy goals and the financial stability of its water enterprise.

Our approach to comprehensive rate studies is generally well defined. As a process, the cornerstone of our approach is our commitment to interact with the City on an ongoing basis. A flow diagram of our proven financial planning process is shown below.

FINANCIAL PLANNING PROCESS ANNUAL SOURCES AND USES OF FUNDS



To address revenue shortfalls, the City desires to conduct an updated water rate study and evaluate its rates and rate structure and adopt updated rates in accordance with Proposition 218. A parallel wastewater rate study is also being conducted.

1.2 Study Methodology

In order to recommend fair and equitable water rates for the City, a rate setting process that conforms to industry standards and current legal requirements must be undertaken. Generally, the steps necessary to implement this process are:

1. **Compile historical and current financial information.** To assess the City's current financial condition and make realistic economic projections, several years of financial data and the City's current budget are compiled and evaluated. In addition, the historical characteristics of the City's customer classes are compiled and the City's current financial policies are summarized.
2. **Evaluate revenue requirements for the study period.** Based on the compiled financial and customer information and assumptions related to customer growth and cost escalation, the City's capital and operating costs over the study period are projected. From these projections the City's annual revenue requirements are established.
3. **Conduct cost of service analysis.** To assure that each customer class is allocated the appropriate proportion of the City's projected revenue requirements, a cost of service analysis is conducted. Cost allocations are based on establishing functional cost categories such as water demand characteristics as well as customer growth projections.
4. **Recommend updated water rates.** Based on the cost of service analysis, the rate structure for each customer class is reviewed and updated as necessary. Appropriate water rates for each customer class are recommended. Based on the recommended rates, typical bills for representative customers are presented and compared with other comparable water utilities in Santa Barbara County.

1.3 Scope of Services

To perform the evaluation described above, the following scope of services was utilized:

- Task 1. Project Management and Communication
- Task 2. Kick Off Meeting and Data Collection & Review
- Task 3. Assess Revenue Requirements
- Task 4. Update Water System Cost of Service Analysis
- Task 5. Develop Proposed Water Rates
- Task 6. Meetings, Draft/Final Reports

This report summarizes the results of the evaluation and recommends updated water rates for the City.

Section 2: Historical and Current Financial Condition

The financial condition of the City's water utility was reviewed and a summary of financial performance is presented in **Table 1**. The information presented in this table was derived from the City's Comprehensive Annual Financial Reports (CAFRs), the City's FY¹ 2015-16 Budget, and special evaluations provided by City staff.

The financial condition of a utility is assessed by contrasting several financial parameters with the recorded financial performance. Foremost among these parameters are criteria for net operating revenues and an assessment of the utility's fund balance stability. The findings related to each of these elements are provided as follows.

Net operating income is an important financial parameter of a utility's performance. Based on industry-accepted guidelines, this financial parameter is generally desired to be at least 20% of total operating revenues to generate adequate capital improvement funding for new and replacement (depreciation-based) assets. As shown in **Table 1**, the net operating income of the City as a percentage of total operating revenues has declined. Accordingly, the water utility will rely on transfers from its unrestricted funds unless additional rate adjustments are implemented. This condition is due to a lack of growth in operating revenues and increases in operating expenses.

¹ FY = fiscal year which runs from July 1st of each year through June 30th of the following year.

**TABLE 1
HISTORICAL OPERATING REVENUES AND EXPENSES**

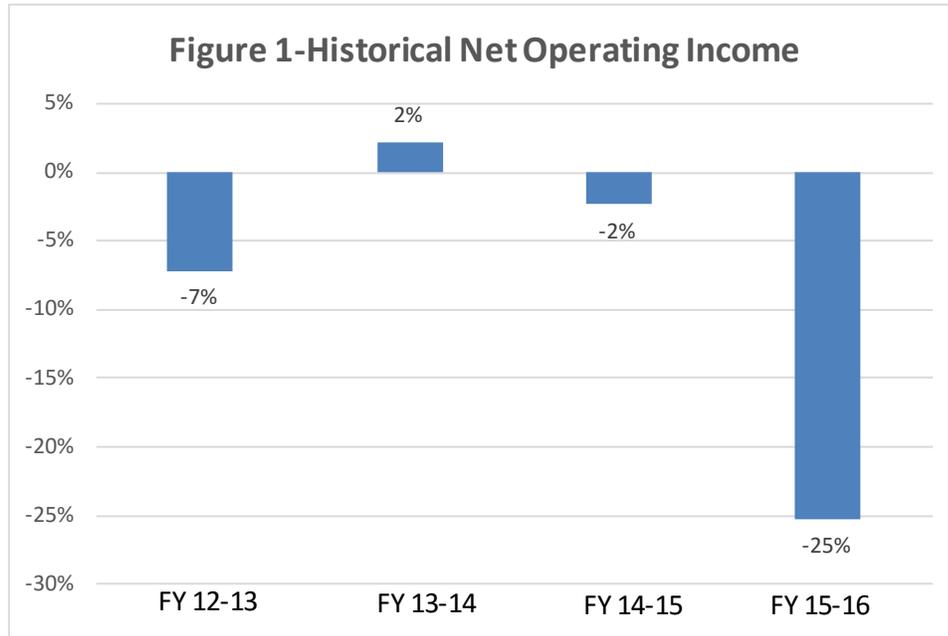
Sources and Uses of Funds	Historical Actuals				Notes
	FY 12-13	FY 13-14	FY 14-15	FY 15-16 Budget	
Operating Revenues					
Charges for Services	\$1,460,658	\$1,549,410	\$1,436,127	\$1,448,000	
Other Operating Services	\$2,382	\$1,699	\$201,740	\$13,500	
Total Operating Revenues	\$1,463,040	\$1,551,109	\$1,637,867	\$1,461,500	
Operating Expenses					
Personnel Services	\$291,081	\$183,886	\$230,902	\$209,294	
Operations and Maintenance	\$1,276,730	\$1,332,424	\$1,445,571	\$1,621,437	See Note 1
Total Operating Expenses	\$1,567,811	\$1,516,310	\$1,676,473	\$1,830,731	
Net Operating Income (Loss)	(\$104,771)	\$34,799	(\$38,606)	(\$369,231)	
Net Op Inc as % of Total Op Rev	-7%	2%	-2%	-25%	
Non-Operating Revenue (Expense)					
Reimbursements	\$434	\$0	\$0	\$0	
Interest Income	\$5,858	\$5,092	\$4,499	\$3,000	
Connection Fees	\$0	\$0	\$185,000	\$606,000	
Total Non-Operating Revenues	\$6,292	\$5,092	\$189,499	\$609,000	
Non-Operating Expenses					
Depreciation	\$166,272	\$163,471	\$145,615	\$167,000	
Capital Expenditures	\$108,765	\$3,850	\$356,412	\$1,070,000	
Transfer Out		\$181,396			
Total Non-Operating Expenses	\$275,037	\$348,717	\$502,027	\$1,237,000	
Net Income	(\$373,516)	(\$308,826)	(\$351,134)	(\$997,231)	
Cashflow of Unrestricted Funds					
Beginning Balance	(\$273,205)	(\$328,773)	(\$289,327)	(\$507,880)	
Revenue	\$1,512,243	\$1,555,656	\$1,457,921	\$1,158,063	See Note 2
Expenses	\$1,567,811	\$1,516,210	\$1,676,474	\$1,356,239	See Note 2
Ending Balance	(\$328,773)	(\$289,327)	(\$507,880)	(\$706,056)	See Note 2
Cashflow of Restricted Funds (Connection Fees)					
Beginning Balance	(\$282,826)	(\$282,826)	(\$282,826)	(\$98,226)	
Revenue	\$0	\$0	\$184,600	\$394,100	See Note 2
Expenses	\$0	\$0	\$0	\$28,442	See Note 2
Ending Balance	(\$282,826)	(\$282,826)	(\$98,226)	\$267,432	See Note 2

Notes:

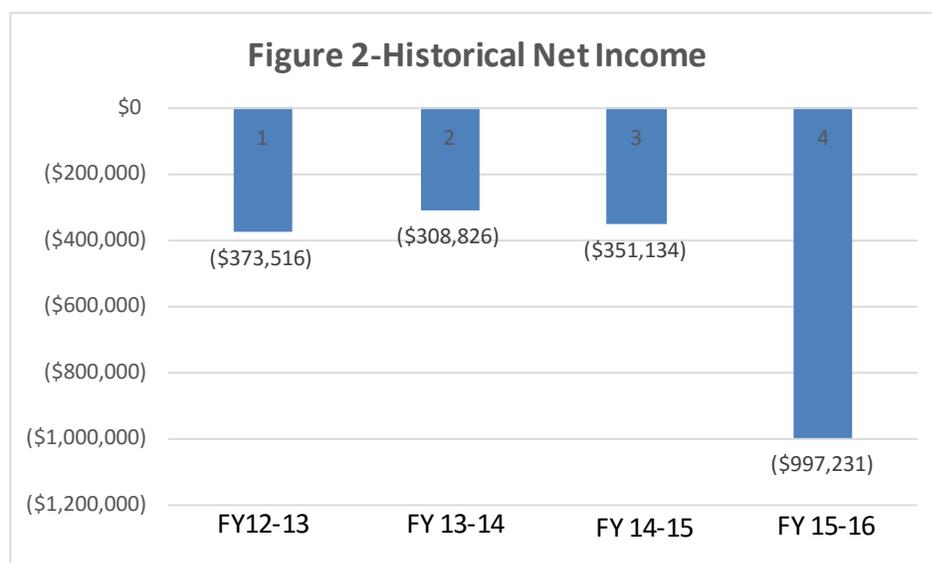
1. Excludes depreciation and transfers.
 2. As of 3/31/16 for FY 15-16
- Source: Buellton Water District, Financial Statements.

During this period, net operating income has ranged from a negative 7 percent in FY 12-13 to a projected negative 25 percent in FY 15-16 which is below the desired 20 percent level. This trend is shown graphically on **Figure 1**. The decrease in net operating income reflects means that the

City currently may not generate sufficient funds to provide for both future capital expenditures and increased operating expenses.



Net income (total operating and non-operating revenues in excess of total operating and non-operating expenses) should be positive at all times. As shown on **Figure 2**, the net income is negative from FY 12-13 to FY 14-15 and is projected to be more negative in FY 15-16.



Fund balances are also important financial considerations. In addition to a utility's operational performance, the impact of non-operating revenues and capital expenditures can also have a significant impact on the City's financial condition, specifically as it impacts fund balances.

Unrestricted funds are usually accumulated from a utility's net income and are available for operations and maintenance expenses as well as any other discretionary purposes. In addition, the water enterprise has restricted funds collected from Facility Capacity Charges. These funds can only be utilized for capacity-related capital improvement projects. The City was unable to identify the fund balances but developed the annual cashflow of the unrestricted and restricted funds. Depreciation is excluded as a non-cash expense in the evaluation of the cashflow in the unrestricted fund. As shown in **Table 1**, the cashflow of both funds are significantly negative over the historical period evaluated.

In consideration of these factors, as well as the integration of additional increases in projected operating and capital costs, additional revenues from water rates are warranted to maintain the utility's sound financial position. The following sections of this report provide the analyses to support the level, timing and cost allocation of the City's financial requirements.

2.1 Historical Number of Customer Accounts

The City's historical customer data were provided by City staff and reviewed. These data are summarized by customer class in **Table 2**. As to be expected with the current economy, there has been very little change in growth-related account activity over the last several years. Consistent with recent development projections for the City, the change in new accounts is conservatively projected over the next 3 years. Reflected in these data is that approximately 61% of the water consumption is utilized by the residential customer classes.

TABLE 2
HISTORICAL NUMBER OF CONNECTIONS BY CUSTOMER CLASS

Customer Classes	Number of Connections		
	FY 2012-2013	FY 2013-2014	FY 2014-2015
Residential			
SFR 5/8" WM	254	253	254
SFR 3/4" WM	950	950	939
SFR 1" and up	17	18	31
Condominium	116	117	107
Multiple Dwelling	25	25	26
Mobile Homes	2	2	2
Subtotal- Residential	1,364	1,365	1,359
Commercial/Industrial/Institutional			
Comm/Retail	45	45	56
Comm/Service	96	95	130
Industrial	23	23	27
School/Church/Park	4	4	6
Subtotal- CII	168	167	219
Total	1,532	1,532	1,578

Source: City of Buellton

2.2 Basis of Water Demand Projections

To equitably allocate the utility's revenue requirements and establish facility capacity charges, a system planning criterion is established. For water systems, the Equivalent Meter Unit (EMU) is most commonly utilized. The EMU is the ratio between the capacity of a particular meter size to the capacity of the meter size (usually a 5/8- or 3/4-inch meter) utilized for a single family dwelling. The EMU ratios utilized in this study are shown in **Table 3**.

**TABLE 3
METER EQUIVALENT RATIOS**

Meter Size (inches)	Maximum Operating Capacity (gpm)	Meter Equivalent Ratio
5/8	20	1.00
3/4	30	1.00
1	50	2.50
1 1/2	100	5.00
2	160	8.00
3	350	17.50
4	600	30.00
6	1250	62.50
8	1800	90.00

2.3 Meter Size and EMU Distribution by Customer Class in FY 14-15

Because FY 14-15 is the most recent year that audited financial data is available, it serves as the test year upon which future projections are based. City staff provided the meter size distribution by customer class for FY 14-15. These data are presented in **Table 4**. Applying the EMU ratios shown in **Table 3** to the meter sizes provides the EMUs by customer class for FY 14-15. These results are also shown in **Table 4**. Based on this analysis, the City had 1578 meters representing 2695.5 EMUs.

TABLE 4
DISTRIBUTION OF METER SIZES BY CUSTOMER CLASS IN FY 14-15

Customer Class	Meter Size										Total Number of Meters by Class	Equivalent Meter Units by Class*
	5/8 inch	3/4 inch	1 inch	1 1/2 inch	2 inch	3 inch	4 inch	6 inch	8 inch	Unknown		
Residential												
SFR 5/8" WM	223	30	1								254	255.5
SFR 3/4" WM	2	928	6							3	939	948.6
SFR 1" and up		1	23	2	5						31	108.5
Condominium	30	76			1						107	114
Multiple Dwelling	5	4	3	3	11						26	119.5
Mobile Homes					1		1				2	70.5
Subtotal- Residential	260.00	1039	33	5	18	0	0	1	0	3	1359	1616.6
Commercial/Industrial/Institutional												
Comm/Retail	7	16	14	6	13						56	192
Comm/Service	9	38	30	14	36	1	1		1		130	617.5
Industrial		7	8	2	7	2				1	27	132.9
School/Church/Park				1	3	1			1		6	136.5
Subtotal- CII	16	61	52	23	59	4	1	0	2	1	219	1078.9
Total Number of Meters by Size	276	1100	85	28	77	4	1	1	2	4	1578	
Equivalent Meters by Size	276	1100	212.5	140	616	70	30	62.5	180	8.5		2695.5

* Based on an average EMUs/meter of 1.2 for residential meters and 4.9 for CII meters for unknown meter sizes.

2.4 EMUs per Connection and Revenue/Water Use per EMU by Customer Class in FY 14-15

To make projections of EMUs, operating revenue, and water use, as well as to form the basis for determination of equitable Facility Capacity Charges, the EMUs per connection, revenue per ERU, and water use per EMU were evaluated for each customer class in FY 14-15. The results of this evaluation are presented in **Table 5**.

TABLE 5
REVENUE AND WATER USE BY CUSTOMER CLASS, CONNECTION AND EQUIVALENT METER UNITS IN FY 14-15

Customer Classes	FY 14-15								
	Number of Connections	Number of Equivalent Meter Units (EMUs)	EMUs per Connection	Revenue by Customer Class	Revenue per Connection	Revenue per Equivalent Meter Unit	Water Use by Customer Class (hcf)	Water Use per Connection (hcf/connection)	Water Use per EMU (hcf/EMU)
Residential									
SFR 5/8" WM	254	255.5	1.0	\$150,510	\$593	\$589	40,240	158	157
SFR 3/4" WM	939	948.6	1.0	\$591,146	\$630	\$623	164,557	175	173
SFR 1" and up	31	108.5	3.5	\$23,473	\$757	\$216	7,705	249	71
Condominium	107	114	1.1	\$45,610	\$426	\$400	6,308	59	55
Multiple Dwelling	26	119.5	4.6	\$44,668	\$1,718	\$374	9,686	373	81
Mobile Homes	2	70.5	35.3	\$99,021	\$49,511	\$1,405	26,116	13058	370
Subtotal- Residential	1,359	1616.6	1.2	\$954,428	\$53,634	\$590	254,612	14,072	157
Commercial/Industrial/Institutional									
Comm/Retail	56	192	3.4	\$62,011	\$1,107	\$323	18,338	327	96
Comm/Service	130	617.5	4.8	\$256,265	\$1,971	\$415	103,038	793	167
Industrial	27	132.9	4.9	\$48,698	\$1,804	\$366	15,313	567	115
School/Church/Park	6	136.5	22.8	\$49,921	\$8,320	\$366	23,283	3881	171
Subtotal- CII	219	1078.9	4.9	\$416,895	\$14,193	\$386	159,972	5568	148
Total	1,578	2,696	1.7	\$1,371,320	\$869	\$509	414,584	263	154

Source: City of Buellton

Section 3: Future Revenue Requirements

The financial projections developed herein were produced to assess revenue and funding requirements, and included projections of operating revenue requirements. Future revenue requirements depend primarily on four specific elements:

- Customer growth
- Water operations and maintenance costs
- Necessary capital improvements and meeting debt obligations
- Meeting appropriate levels of fund and reserve targets.

This study examines future revenue requirements over the next three years, with a focus on the development of a three-year rate plan. As such, financial projections and rate recommendations for the next three years are reflected herein.

3.1 Projected Customer Growth

Customer growth affects the revenue requirements of the City in three ways. First, it increases the customer base that is paying for service; second, it increases the level of those costs that vary with water demands such as chemicals and pumping expenses; and lastly, it affects revenues from Facility Capacity Charges.

To develop customer growth projections over the three-year study period, City staff provided a list of approved developments over the study period. These developments were assigned to the appropriate customer classes and completion dates. To develop conservative estimates of the financial impacts of these developments, the projected number of new connections were reduced by 25 percent to account for potential project delays. The results of this evaluation of projected customer growth by customer class are presented in **Table 6**. As indicated, the most significant growth occurs in the development of condominiums although the growth of new commercial developments is also notable.

**TABLE 6
PROJECTED NUMBER OF CONNECTIONS BY CUSTOMER CLASS**

Customer Classes	Projected Number of Connections				Projected Number of Equivalent Meter Units			
	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 15-16	FY 16-17	FY 17-18	FY 18-19
Residential								
SFR 5/8" WM	256	256	256	256	258	258	258	258
SFR 3/4" WM	951	951	951	951	961	961	961	961
SFR 1" and up	31	31	31	31	109	109	109	109
Condominium	114	194	260	290	121	207	277	308
Multiple Dwelling	26	26	26	26	120	120	120	120
Mobile Homes	2	2	2	2	71	71	71	71
Subtotal-Residential	1380	1460	1526	1556	1642	1737	1816	1850
Commercial/Industrial/Institutional								
Comm/Retail	56	62	62	62	192	213	213	213
Comm/Service	131	132	133	133	622	626	633	633
Industrial	27	29	29	30	133	143	143	146
School/Church/Park	6	7	7	7	137	154	154	154
Subtotal-CII	220	230	231	232	1084	1131	1138	1142
Total	1600	1690	1757	1787	2725	2868	2954	2992

Notes:

1. The projected number of new connections was reduced by 25% to account for project delays.

3.2 Projected Water Use and Operating Revenues

As indicated previously, water use provides the basis for the determination of equitable facility capacity charges and cost allocation of revenue requirements. Based on the water use per connection in each customer class and the projected number of connections (**Table 6**), the projected water use for each customer class for FY 16-17 to FY 18-19 is presented in **Table 7**.

**TABLE 7
PROJECTED WATER USE BY CUSTOMER CLASS**

Customer Class	FY 14-15 Water Use		Projected Water Use (hcf)			
	Per Class (hcf)	Per Connection (hcf)	FY 15-16	FY 16-17	FY 17-18	FY 18-19
Residential						
SFR 5/8" WM	40,240	158	40557	40557	40557	40557
SFR 3/4" WM	164,557	175	166660	166660	166660	166660
SFR 1" and up	7,705	249	7705	7705	7705	7705
Condominium	6,308	59	6721	11452	15343	17067
Multiple Dwelling	9,686	373	9686	9686	9686	9686
Mobile Homes	26,116	13058	26116	26116	26116	26116
Subtotal-Residential	254,612	187	257444	262175	266066	267791
Commercial/Industrial/Institutional						
Comm/Retail	18,338	327	18338	20303	20303	20303
Comm/Service	103,038	793	103831	104425	105614	105614
Industrial	15,313	567	15313	16447	16447	16873
School/Church/Park	23,283	3881	23283	26193	26193	26193
Subtotal-CII	159,972	730	160765	167369	168557	168983
Total Projected Water Use (hcf)	414,584	263	443944	429544	434624	436774

3.3 Budgeted/Projected Operating Expenses

Costs associated with the management, administration, and operations of the City's water utility are accounted for in two basic categories. These are:

- Personnel Services
- Operation and Maintenance

The historical and projected water utility costs for these categories for the prior three years and the current fiscal year are shown in **Table 1**.

The historical water utility costs presented in **Table 1** form the basis for cost projections for the 3-year study period of this rate study. Generally, when an increasing cost trend is observed, the compound growth rate of the cost category between FY 12-13 and FY 14-15 was determined. When no cost trend was observed, the 3-year average of the cost category was determined. Depreciation projections were based on \$167,000 included in the approved FY 15-16 Budget. The projected cost of capital improvements is based on the capital improvement program provided by City staff and discussed in the Section 3.4. Based on this evaluation, cost projections for FY 15-16 to FY 18-19 were developed. These cost projections represent realistic estimates of the City's current and future costs.

Based on these assumptions, water operation and maintenance costs are projected to increase at a modest rate over the next three years. Another notable cost element in **Table 1** is depreciation. Providing reliable water service is capital intensive. Depreciation is a non-operating expense that is recorded to represent the annual wear and tear of system assets. Funding depreciation means to set aside money for future capital requirements and replacement of aging infrastructure.

3.4 Projected Capital Improvement Program

To provide regulatory compliance and long range reliability, the City has identified several capital improvement projects to be implemented during the study period and beyond.

The Water Service Charges and Facility Capacity Charges recommended herein are intended to maintain a sound City financial condition over the 3-year study period. Additional increases may be required thereafter. For FY15-16, a capital improvement expense of \$1,103,333 is utilized in the rate analysis. The City's planned capital improvement program is presented in **Table 8**. In addition, those projects that are capacity-related are identified. These projects form the basis for determination of the recommended Facility Capacity Charges that are described in Section 3.6.

**TABLE 8
CAPITAL IMPROVEMENT PROGRAM**

Project No.	Project Description	FY 15-16 Budget	FY 16-17	FY 17-18	FY 18-19	Beyond FY 18-19	Total Budget
092-203	Fundware Accounting Software Replacement	\$33,333					\$33,333
092-602	Reservoirs 1&2	\$700,000					\$700,000
092-603	WTP Facilities Improvement	\$150,000	\$150,000	\$100,000	\$100,000	\$300,000	\$800,000
092-605	WTP Backwash Reclamation Improvement Project	\$100,000					\$100,000
092-606	Water Meter Reading Improvements	\$40,000			\$65,000		\$105,000
092-607	Water Meter Upgrades	\$50,000		\$50,000	\$25,000	\$75,000	\$200,000
092-608	WTP/Booster Power Reliability		\$300,000				\$300,000
092-609	Supplemental Well/WTP Feasibility				\$50,000		\$50,000
092-610	Water Distribution System Improvements		\$100,000	\$200,000	\$200,000	\$600,000	\$1,100,000
092-611	Recycled Water Concept/Feasibility Joint Project	\$30,000		\$100,000			\$130,000
Total Capital Improvement Program-Water		\$1,103,333	\$550,000	\$450,000	\$440,000	\$975,000	\$3,518,333
Capacity Related Capital Improvement Program		\$330,000	\$550,000	\$450,000	\$375,000	\$975,000	\$2,680,000

3.5 Projected Operating Revenue at Current Rates

Based on the operating revenue per connection (**Table 5**) and the projected number of connections over the study period (**Table 6**), the operating revenue at current rates were projected for each customer class. These projections are shown in **Table 9**.

**TABLE 9
PROJECTED OPERATING REVENUES BY CUSTOMER CLASS AT CURRENT RATES**

Customer Class	Projected Annual Revenue			
	FY 2015-2016	FY 2016-2017	FY 2017-2018	FY 2018-2019
Residential				
SFR 5/8" WM	\$151,695	\$151,695	\$151,695	\$151,695
SFR 3/4" WM	\$598,701	\$598,701	\$598,701	\$598,701
SFR 1" and up	\$23,473	\$23,473	\$23,473	\$23,473
Condominium	\$48,594	\$82,801	\$110,935	\$123,403
Multiple Dwelling	\$44,668	\$44,668	\$44,668	\$44,668
Mobile Homes	\$99,021	\$99,021	\$99,021	\$99,021
Subtotal-Residential	\$966,152	\$1,000,359	\$1,028,492	\$1,040,960
Commercial/Industrial/Institutional				
Comm/Retail	\$62,011	\$68,655	\$68,655	\$68,655
Comm/Service	\$258,236	\$259,715	\$262,672	\$262,672
Industrial	\$48,698	\$52,305	\$52,305	\$53,658
School/Church/Park	\$49,921	\$56,161	\$56,161	\$56,161
Subtotal-CII	\$418,866	\$436,836	\$439,793	\$441,146
Total Projected Revenue	\$1,385,018	\$1,437,195	\$1,468,285	\$1,482,106

3.6 Projected Connection Fee Revenue at Current Rates

The City's current water connection fees are shown in **Table 10**. Based on these rates and the development assumptions presented in **Table 6**, the projected connection fee revenues at current rates is shown in **Table 11**.

**TABLE 10
CURRENT WATER FACILITY CHARGES**

Customer Class	Facility Charge
Residential Accounts	Amount
Single Family Dwelling	\$3,640 per unit
Multi Family	\$3,640 per unit
Commercial Accounts	Amount
Camper/RV Parks	\$3,640 per unit
All other commercial and industrial uses and meter sizes	\$5,200 per acrefoot of anticipated water use

**TABLE 11
PROJECTED CONNECTION FEE REVENUE AT CURRENT RATES**

Customer Class	Projected Revenue		
	FY 16-17	FY 17-18	FY 18-19
Residential			
SFR 5/8" WM	\$0	\$0	\$0
SFR 3/4" WM	\$0	\$0	\$0
SFR 1" and up	\$0	\$0	\$0
Condominium	\$194,205	\$159,720	\$70,785
Multiple Dwelling	\$0	\$0	\$0
Mobile Homes	\$0	\$0	\$0
Subtotal-Residential	\$194,205	\$159,720	\$70,785
Commercial/Industrial/Institutional			
Comm/Retail	\$23,455	\$0	\$0
Comm/Service	\$69,466	\$72,196	\$0
Industrial	\$13,541	\$0	\$5,078
School/Church/Park	\$34,743	\$0	\$0
Subtotal-CII	\$141,204	\$72,196	\$5,078
Total	\$335,409	\$391,636	\$146,648

3.7 Recommended Facility Capacity Charges

This section describes the development of cost-based Facility Capacity Charges, also known as Connection Fees, for customers requiring additional capacity in the City's water system. These charges provide the means of balancing the cost requirements for utility infrastructure between existing and new customers. The portion of existing infrastructure and future capital improvements that will provide service (i.e., capacity) to new customers is included in the calculation of the charges. In contrast to this, the City has capital improvement projects that are related to renewal and replacement of existing infrastructure in service. These infrastructure costs are included within the rates of the service fees charged to the City's customers, and are not included within the calculation of the proposed capacity fees. By establishing cost-based capacity fees, the City maintains an approach of having "growth pay for growth" so that existing utility customers are essentially sheltered from the financial impacts associated with future system demands.

California Government Code Sections 66013, 66022, and 66023 are the primary Government Code sections applicable to the development and recovery of capacity charges. The focus of these sections is summarized below:

- The City must establish that the capacity charge does not exceed the estimated reasonable cost of capacity in facilities in existence or to be constructed for the benefit of the customer charged.
- The capacity charge revenues must be segregated from operating and maintenance funds and deposited in a separate fund.
- The Department may only expend the revenues for the purpose for which the charges were collected.

These sections of the Government Code suggest that the basis for facility charges be consistent with the new development's impact on the cost of capacity in the City's water system. It should be noted however, that the documentation and supporting nexus for deriving the level of fair and equitable charges is not limited to a single criterion, acknowledging the fact that individual agencies may have unique circumstances that would result in charges that are fair and reasonable. Because the courts have approved assorted charge structure and methods over the years, there is a wide variation in the approach and method behind the development of these charges throughout California.

The first step in establishing capacity fees is the determination of the system planning criterion to be utilized to calculate the amount of capacity required by a new customer. Because the potential demand of a connection must be considered in applying connection fees, the Equivalent Meter Unit (EMU) is most often used for water systems because it represents the basis for system design, and subsequent customer demands that are placed on the system. This metric equates the requirements of the new customer to the current requirements of a single family residential customer. The estimated water demand of each customer class is based on its water meter size and expressed as EMUs. The capacity-limiting factor utilized in this analysis is well capacity. The results of this analysis are presented in **Table 12**.

**TABLE 12
FACILITY CAPACITY CHARGE EVALUATION**

Evaluation Parameter	FY 16-17	FY 17-18	FY 18-19
RCNLD Evaluation			
FY 15-16 RCNLD	\$4,428,892		
Estimated RCNLD in FY	\$5,425,225	\$5,808,225	\$6,091,225
Total Well Capacity (gpm)	3100	3100	3100
Estimated FY 14-15 Peak Water Delivery (gpm) (See Note 1)	1,475	1,475	1,475
Available Capacity (gpm)	1,625	1,625	1,625
Peak Delivery per EMU (gpm)	0.5		
Maximum EMUs	5,665		
Estimated EMUs in FY	2,868	2,954	2,992
Available EMUs	2,797	2,711	2,673
Net Asset Value per EMU	\$1,892	\$1,967	\$2,036
Capacity Related CIP			
Capacity Related CIP	\$2,680,000	\$2,680,000	\$2,680,000
Capacity Related CIP per EMU	\$958	\$988	\$1,003
Recommended Facility Charge per EMU	\$2,850	\$2,955	\$3,038

Notes:

1. Based on an assumed peaking factor of 2.5 for peak day/annual average demand for FY 14-15

After the basis upon which the capacity requirements will be determined, an assessment of the utility system assets is performed to establish the assets that should be included in the capacity charge analysis. In this process, the existing assets must be valued. Existing assets may be valued in a number of different ways. For the purpose of this analysis the reproduction new less depreciation (RCNLD) method of valuation was utilized. In this method, the value of the existing assets is estimated by indexing the original cost of each asset from the time it was completed to the time of the valuation. For the purpose of this valuation a recent escalation of the Engineering News Record (ENR) Index of 2.7 percent per year was utilized. To this value, the rate of depreciation currently utilized by the City is applied to determine the RCNLD value. In addition to the value of the City's existing assets, the capacity-related capital improvements must be added. These improvements are presented in **Table 8**.

Based on this methodology, the determination of the recommended Facility Capacity Charges is presented in **Table 12** and the projected connection fee revenue at the recommended rates is presented in **Table 13**.

TABLE 13
PROJECTED CONNECTION FEE REVENUE AT RECOMMENDED RATES

Customer Classes	Projected Connection Fee Revenue		
	FY 2016-2017	FY 2017-2018	FY 2018-2019
Residential			
SFR 5/8" WM	\$0	\$0	\$0
SFR 3/4" WM	\$0	\$0	\$0
SFR 1" and up	\$0	\$0	\$0
Condominium	\$243,667	\$207,782	\$94,688
Multiple Dwelling	\$0	\$0	\$0
Mobile Homes	\$0	\$0	\$0
Subtotal-Residential	\$243,667	\$207,782	\$94,688
Commercial/Industrial/Institutional			
Comm/Retail	\$58,627	\$0	\$0
Comm/Service	\$10,153	\$21,054	\$0
Industrial	\$28,056	\$0	\$11,217
School/Church/Park	\$48,626	\$0	\$0
Subtotal-CII	\$145,462	\$21,054	\$11,217
Total	\$389,128	\$436,619	\$200,593

3.8 Projected Revenue and Expenses at Current Rates

An annualized revenue plan has been prepared to assess the financial implications of the City's programs and costs. This plan integrates operating and capital costs, debt financing, and depreciation funding.

Based on the assumptions described in the preceding sections, the projected financial condition of the City for FY 16-17 to FY 18-19 was evaluated using the City's revenue model at current rates. This evaluation is presented in **Table 14**.

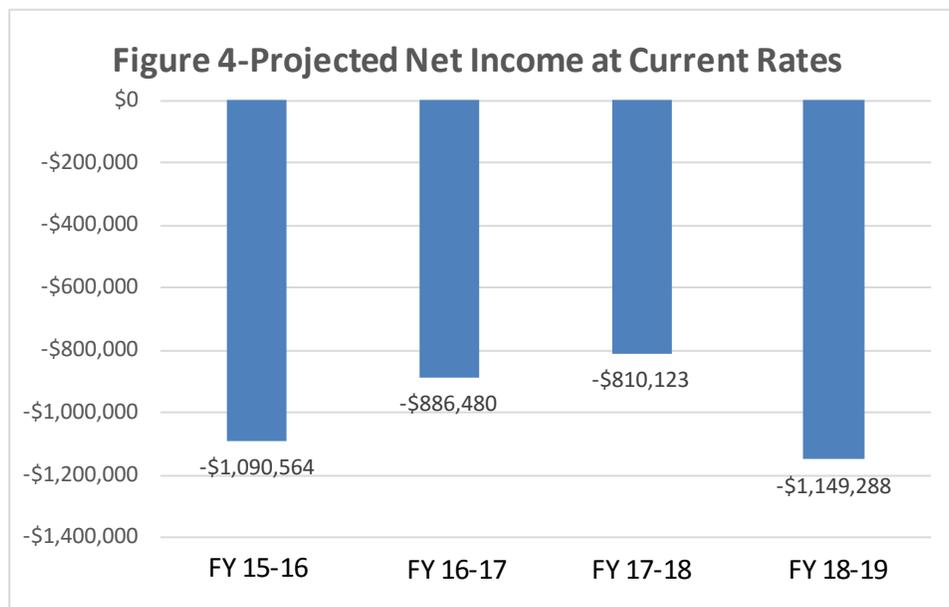
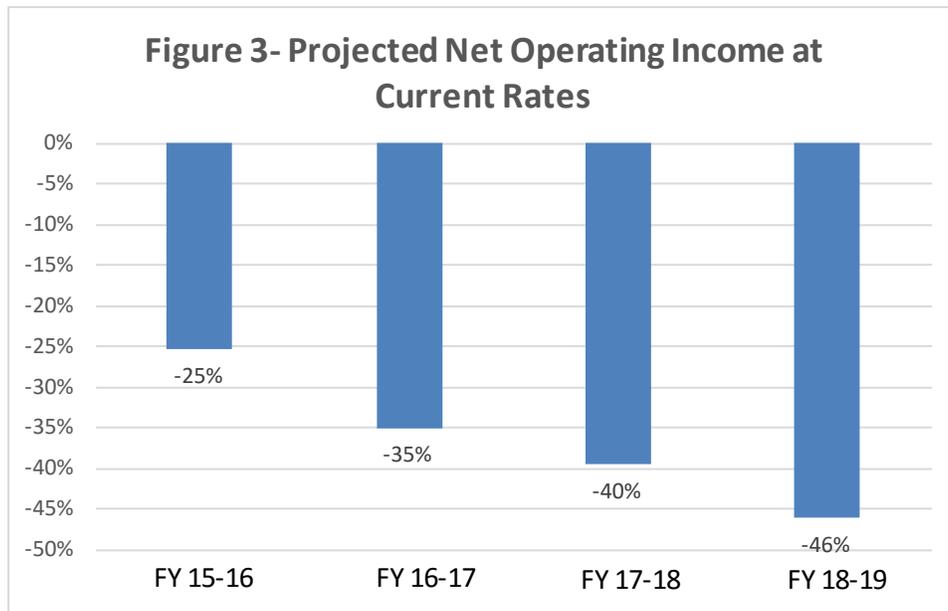
**TABLE 14
PROJECTED OPERATING REVENUES AND EXPENSES AT CURRENT RATES**

Sources and Uses of Funds	Projected Revenues and Expenses				Notes
	FY 15-16 Budget	FY 16-17	FY 17-18	FY 18-19	
Operating Revenues					
Charges for Services	\$1,448,000	\$1,437,195	\$1,468,285	\$1,482,106	
Other Operating Services	\$13,500	\$16,000	\$16,000	\$16,000	
Total Operating Revenues	\$1,461,500	\$1,453,195	\$1,484,285	\$1,498,106	
Operating Expenses					
Personnel Services	\$209,294	\$235,290	\$235,290	\$235,290	
Operations and Maintenance	\$1,621,437	\$1,725,371	\$1,835,967	\$1,953,653	
Total Operating Expenses	\$1,830,731	\$1,960,661	\$2,071,257	\$2,188,943	
Net Operating Income (Loss)	(\$369,231)	(\$507,466)	(\$586,972)	(\$690,837)	
Net Op Inc as % of Total Op Rev	-25%	-35%	-40%	-46%	
Non-Operating Revenue (Expense)					
Reimbursements	\$0	\$0	\$0	\$0	
Interest Income	\$3,000	\$2,577	\$2,213	\$1,901	
Connection Fees	\$606,000	\$335,409	\$391,636	\$146,648	
Total Non-Operating Revenues	\$609,000	\$337,986	\$393,849	\$148,549	
Non-Operating Expenses					
Depreciation	\$167,000	\$167,000	\$167,000	\$167,000	
Capital Expenditures	\$1,163,333	\$550,000	\$450,000	\$440,000	
Transfer Out					
Total Non-Operating Expenses	\$1,330,333	\$717,000	\$617,000	\$607,000	
Net Income	-\$1,090,564	(\$886,480)	(\$810,123)	(\$1,149,288)	
Cashflow of Unrestricted Funds					
Beginning Balance	(\$507,880)	(\$1,647,444)	(\$2,152,333)	(\$2,737,092)	
Revenue	\$1,464,500	\$1,455,772	\$1,486,498	\$1,500,007	See Note 1
Transfers for O&M	\$1,830,731	\$1,960,661	\$2,071,257	\$2,188,943	See Note 1
Transfers for Capital	\$773,333	\$0	\$0	\$65,000	See Note 1
Ending Balance	(\$1,647,444)	(\$2,152,333)	(\$2,737,092)	(\$3,491,028)	
Cashflow of Restricted Funds (Connection Fees)					
Beginning Balance	(\$98,226)	\$177,774	(\$36,817)	(\$95,181)	
Revenue	\$606,000	\$335,409	\$391,636	\$146,648	See Note 1
Transfers for Capital	\$330,000	\$550,000	\$450,000	\$375,000	See Note 1
Ending Balance	\$177,774	(\$36,817)	(\$95,181)	(\$323,533)	

Notes:

1. As budgeted for FY15-16.

As shown in **Table 14** and on **Figure 3**, at current rates, net operating income declines from a projected negative 25 percent in FY 15-16 to negative 46 percent in FY 18-19. In addition, as shown in **Table 14** and on **Figure 4**, net income is significantly negative throughout the study period. At current rates, both the unrestricted and restricted reserves will significantly decline during this period.



3.9 Revenue Requirements

As expected, additional revenues are needed to meet the obligations of the City. Accordingly, the revenue requirements to maintain financial performance were evaluated. This revenue plan is designed to produce net operating income of a no less than 20 percent in order to provide adequate funding for debt service and capital expenditures while maintaining stable fund balances.

The resulting revenue plan needed to fund City costs is shown in **Table 15**. The focus of the financial plan is to maintain the financial stability of the City.

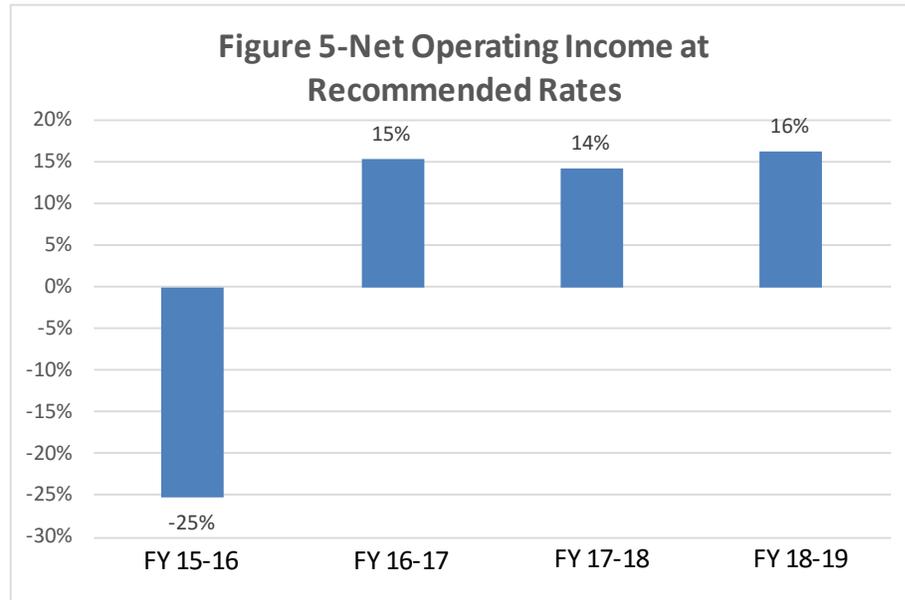
TABLE 15
PROJECTED OPERATING REVENUES AND EXPENSES AT RECOMMENDED RATES

Sources and Uses of Funds	Projected Revenues and Expenses				Notes
	FY 15-16 Budget	FY 16-17	FY 17-18	FY 18-19	
Operating Revenues					
Charges for Services	\$1,448,000	\$2,300,000	\$2,400,000	\$2,600,000	
Other Operating Services	\$13,500	\$16,000	\$16,000	\$16,000	
Total Operating Revenues	\$1,461,500	\$2,316,000	\$2,416,000	\$2,616,000	
Operating Expenses					
Personnel Services	\$209,294	\$235,290	\$235,290	\$235,290	
Operations and Maintenance	\$1,621,437	\$1,725,371	\$1,835,967	\$1,953,653	
Total Operating Expenses	\$1,830,731	\$1,960,661	\$2,071,257	\$2,188,943	
Net Operating Income (Loss)	(\$369,231)	\$355,339	\$344,743	\$427,057	
Net Op Inc as % of Total Op Rev	-25%	15%	14%	16%	
Non-Operating Revenue (Expense)					
Reimbursements	\$0	\$0	\$0	\$0	
Interest Income	\$3,000	\$2,577	\$2,213	\$1,901	
Connection Fees	\$606,000	\$389,128	\$436,619	\$200,593	
Total Non-Operating Revenues	\$609,000	\$391,705	\$438,832	\$202,494	
Non-Operating Expenses					
Depreciation	\$167,000	\$167,000	\$167,000	\$167,000	
Capital Expenditures	\$1,163,333	\$550,000	\$450,000	\$440,000	
Transfer Out					
Total Non-Operating Expenses	\$1,330,333	\$717,000	\$617,000	\$607,000	
Net Income	-\$1,090,564	\$30,044	\$166,574	\$22,551	
Cashflow of Unrestricted Funds					
Beginning Balance	(\$507,880)	(\$1,647,444)	(\$1,289,528)	(\$942,573)	
Revenue	\$1,464,500	\$2,318,577	\$2,418,213	\$2,617,901	
Transfers for O&M	\$1,830,731	\$1,960,661	\$2,071,257	\$2,188,943	See Note 1
Transfers for Capital	\$773,333	\$0	\$0	\$65,000	See Note 1
Ending Balance	(\$1,647,444)	(\$1,289,528)	(\$942,573)	(\$578,615)	
Cashflow of Restricted Funds (Connection Fees)					
Beginning Balance	(\$98,226)	\$177,774	\$16,902	\$3,521	
Revenue	\$606,000	\$389,128	\$436,619	\$200,593	See Note 1
Transfers for Capital	\$330,000	\$550,000	\$450,000	\$375,000	See Note 1
Ending Balance	\$177,774	\$16,902	\$3,521	(\$170,886)	

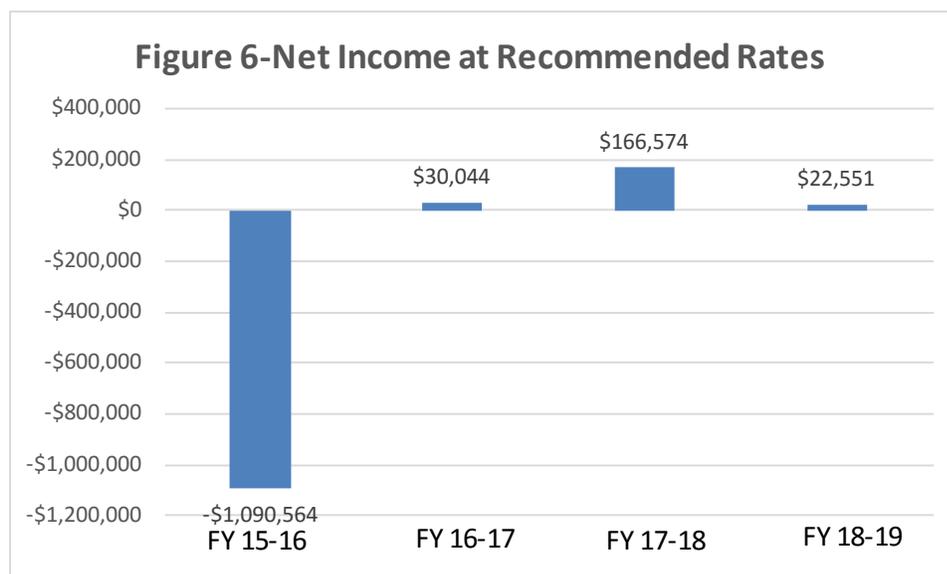
Notes:

1. As budgeted for FY15-16.

As shown in **Table 15** and in **Figure 5**, the recommended revenue levels do not produce a net operating income of at least 20 percent. However, the financial performance results in a significant improvement in this metric with levels of approximately 15 percent in each of the years evaluated.



As shown in **Table 15** and on **Figure 6**, the net income improves from a significant negative balance to level that are slightly positive over the study period.



As shown in **Table 15**, the cashflow of unrestricted fund balances improves over the study period and would be nearly in balance by FY 18-19 except for the negative carryover balances of prior years. In addition, despite the relatively high level of capital expenditures and declining connection fees, the restricted fund balances remain positive for all years except FY 18-19.

Section 4: Current Water Service Charges

The City strives to provide cost-effective water supply, treatment and distribution services for its customers, particularly with the City's relatively small customer base.

4.1 Current Water Service Charges

The City last increased its water rates in 2011 for the years FY 11-12 to FY 14-15. The City's current water rates are shown in **Table 16**.

Residential Customers: The City's current water rates have a fixed monthly charge that varies according to meter size and a variable rate based on consumption.

Commercial Customers: Commercial users have the same water rate structure as the residential customers.

**TABLE 16
CURRENT WATER RATES**

<u>Monthly Service Charges</u>	
<u>Meter Size</u>	<u>Fixed Monthly Charge*</u>
5/8" and 3/4"	\$24.20
1"	\$26.65
1 1/2"	\$31.48
2"	\$41.21
3"	\$60.60
4"	\$78.80
6"	\$109.11
8"	\$145.51
* An additional \$13 per month is added for each additional dwelling unit	
<u>Consumption Charge</u>	
\$1.97 per hcf	
<u>Sprinkler Fire Service</u>	
<u>Size</u>	<u>Monthly Fee</u>
4"	\$19.29
6"	\$28.93
8"	\$38.58

4.2 Sprinkler Fire Service

Evaluation of the sprinkler fire service charge is beyond the scope of this rate study. Accordingly, the recommended charges remain unchanged.

4.3 Current Connection Fees

The City levies a Facility Charge (connection fee) on new development to recover the costs of new development's impact on the water system. The City's current connection fees are discussed in Section 3.6 and shown in **Table 10**.

Section 5: Cost of Service Evaluation

To allocate the required revenue requirements to the appropriate customer meter sizes and consumption charges, a cost of service evaluation was performed.

5.1 Cost of Service Allocation

To allocate the revenue requirements to the customer classes, the cost of service is based on Equivalent Meter Units (EMUs). The number of EMUs for each meter size is based on its capacity relationship to the capacity of the meter size used for a typical single family dwelling, usually a ¾-inch meter. These capacity (meter equivalent) ratios shown in **Table 3**. From the FY 14-15 test year analysis, the estimated EMUs per connection (**Table 10**) were applied to the projection of connections during the study period shown in **Table 6**. The cost of service allocation for water service is designed around the concept of EMUs, based on the meter size of a single-family dwelling parcel. This EMU applies to all accounts, whether residential or commercial. A 5/8- or ¾-inch meter is 1.0 EMU. In the assessment of the EMUs for each residential connection, it was assumed that a multiple dwelling represents 0.7 EMU per additional unit. The resulting projection of EMUs for each customer class is presented in **Table 6**.

5.2 Projection of Meter Sizes by Customer Class

To project the number of each meter size, the distribution of meter sizes by customer class in the FY 14-15 test year was evaluated. The results of this evaluation are summarized in **Table 17**.

Table 17
Distribution of Meter Sizes by Customer Class and Projected Number of Connections by Meter Size

Meter Size	Distribution of Meter Sizes by Customer Class in FY 14-15									Projected Number of Connections of Meter Size			
	SFR 5/8"	SFR 3/4"	SFR 1" and up	Condominium	Multiple Dwelling	Mobile Homes	Comm/Retail	Comm/Service	Industrial	School/Church/Park	FY 16-17	FY 17-18	FY 18-19
5/8 inch	87.8%	0.2%		28.0%	19.2%		12.5%	6.9%			303	322	330
3/4 inch	11.8%	98.8%	3.2%	71.0%	15.4%		28.6%	29.2%	25.9%		1177	1224	1245
1 inch	0.4%	0.6%	74.2%		11.5%		25.0%	23.1%	29.6%		88	88	88
1 1/2 inch			6.5%		11.5%		10.7%	10.8%	7.4%	16.7%	29	29	29
2 inch			16.1%	0.9%	42.3%	50.0%	23.2%	27.7%	25.9%	50.0%	81	82	82
3 inch								0.8%	7.4%	16.7%	4	4	4
4 inch								0.8%			1	1	1
6 inch						50.0%					1	1	1
8 inch								0.8%		16.7%	2	2	2
Unknown*		0.3%									4	4	4

5.3 Projections of Meter Size Connections by Fiscal Year

Based on the evaluation of the distribution of meter sizes by customer class, the number of connections of each meter size were projected over the study period by applying the distribution to the projection of connections of each customer class presented in **Table 6**. The results of this evaluation are also presented in **Table 17**.

5.4 Costs of Service and Unit Rates

The revenue requirements presented in **Table 15** were distributed to each meter size based on the percentage of EMUs of the meter size. The projected number of connections of each meter size over the study period is presented in **Table 17**. Assuming 50 percent of the revenue requirement is provided by fixed monthly charges and the other 50 percent is provided by variable commodity charges, the recommended fixed monthly charges and variable commodity charges are presented in **Table 18**.

**TABLE 18
SUMMARY OF COST OF SERVICE EVALUATION**

Meter Size	FY 14-15		FY 14-15		Test Year Cost Allocation \$	Monthly Service Charge**		
	Accounts		Equivalent Meters			FY 16-17	FY 17-18	FY 18-19
	Number	%	Number	%				
5/8 inch	276	17.5%	276	10.2%	\$223,063	\$32.37	\$31.83	\$33.62
3/4 inch	1100	69.7%	1100	40.8%	\$889,019	\$33.23	\$33.34	\$35.51
1 inch	85	5.4%	212.5	7.9%	\$171,742	\$86.26	\$89.66	\$96.89
1 1/2 inch	28	1.8%	140	5.2%	\$113,148	\$171.02	\$177.47	\$191.90
2 inch	77	4.9%	616	22.9%	\$497,850	\$271.77	\$280.00	\$301.60
3 inch	4	0.3%	70	2.6%	\$56,574	\$580.58	\$604.20	\$646.19
4 inch	1	0.1%	30	1.1%	\$24,246	\$1,052.43	\$1,085.82	\$1,176.31
6 inch	1	0.1%	62.5	2.3%	\$50,512	\$2,222.07	\$2,318.68	\$2,511.90
8 inch	2	0.1%	180	6.7%	\$145,476	\$2,992.60	\$3,105.95	\$3,364.78
Unknown*	4	0.3%	8.5	0.3%	\$6,870	\$73.49	\$76.68	\$82.51
Total Meters	1578	100.0%	2695.5	100.0%	\$2,178,500			
Consumption Charge**						\$2.68	\$2.76	\$2.98

* Based on an average EMUs/meter of 1.2 for residential meters and 4.9 for CII meters for unknown meter sizes.

** Based on 50 percent of revenue requirements provided by Fixed Monthly Service Charges and 50 percent provided by Consumption Charges

Section 6: Recommended Water Service Charge Rates

Recommended rates have been developed to meet the revenue requirements of the City. As indicated in Section 3, revenues generated from current water rates are approximately \$1.4 million per year. Development of the recommended water service charge rates follows.

6.1 Current Rate Structure

The current water rate structure is based on a fixed monthly charge that varies by meter size and a variable commodity charge that is applied to metered consumption. The rate structure is presented in **Table 16**.

6.2 Recommended Rate Structure

Water Consultancy recommends that the City continue the current rate structure. Continuation of the current structure would also minimize any confusion by ratepayers. In addition, it provides a financial incentive for continued water conservation. The current rate structure should also provide the financial stability that is necessary to fund the City's operating expenses most of which are fixed.

6.3 Development of Water Service Charge Rates

To develop appropriate water service charge rates for each meter size, the revenue requirements for FY 16-17 to FY 18-19 developed in **Table 15** were allocated to each meter size based on the EMUs for each size shown in **Table 18**. Based on the projected number of connections of each meter size over the study period and assuming that 50 percent of the revenue requirement is recovered from fixed charges and 50 percent from variable charges, recommended rates are recommended.

6.4 Recommended Water Service Charge Rates

Based on the analysis described in the preceding section, the recommended water service charge rates for the City were developed. Water Consultancy recommends that the City adopt the rates summarized in **Table 19** for FY 16-17, **Table 20** for FY 17-18, and **Table 21** for FY 18-19.

**TABLE 19
RECOMMENDED WATER RATES FOR FY 16-17**

<u>Monthly Service Charges</u>	
<u>Meter Size</u>	<u>Fixed Monthly Charge*</u>
5/8" and 3/4"	\$33.23
1"	\$86.26
1 1/2"	\$171.02
2"	\$271.77
3"	\$580.58
4"	\$1,052.43
6"	\$2,222.07
8"	\$2,992.60
* An additional \$23.26 per month is added for each additional dwelling unit	
<u>Consumption Charge</u>	
\$2.68 per hcf	
<u>Sprinkler Fire Service</u>	
<u>Size</u>	<u>Monthly Fee</u>
4"	\$19.29
6"	\$28.93
8"	\$38.58
<u>Facility Charges</u>	
<u>Meter Size</u>	<u>Facility Charge</u>
3/4"	\$2,850
1"	\$7,125
1 1/2"	\$14,250
3"	\$22,800
4"	\$49,875
5"	\$85,500
6"	\$178,125
8"	\$256,500

**TABLE 20
RECOMMENDED WATER RATES FOR FY 17-18**

Monthly Service Charges	
Meter Size	Fixed Monthly Charge*
5/8" and 3/4"	\$33.34
1"	\$89.66
1 1/2"	\$177.47
2"	\$280.00
3"	\$604.20
4"	\$1,085.82
6"	\$2,318.68
8"	\$3,105.95
* An additional \$23.34 per month is added for each additional dwelling unit	
Consumption Charge	
\$2.76 per hcf	
Sprinkler Fire Service	
Size	Monthly Fee
4"	\$19.29
6"	\$28.93
8"	\$38.58
Facility Charges	
Meter Size	Facility Charge
3/4"	\$2,955
1"	\$7,388
1 1/2"	\$14,775
3"	\$23,640
4"	\$51,713
5"	\$88,650
6"	\$184,688
8"	\$265,950

**TABLE 21
RECOMMENDED WATER RATES FOR FY 18-19**

<u>Monthly Service Charges</u>	
<u>Meter Size</u>	<u>Fixed Monthly Charge*</u>
5/8" and 3/4"	\$35.51
1"	\$96.89
1 1/2"	\$191.90
2"	\$301.60
3"	\$646.19
4"	\$1,176.31
6"	\$2,511.90
8"	\$3,364.78
* An additional \$24.86 per month is added for each additional dwelling unit	
<u>Consumption Charge</u>	
\$2.98 per hcf	
<u>Sprinkler Fire Service</u>	
<u>Size</u>	<u>Monthly Fee</u>
4"	\$19.29
6"	\$28.93
8"	\$38.58
<u>Facility Charges</u>	
<u>Meter Size</u>	<u>Facility Charge</u>
3/4"	\$3,038
1"	\$7,595
1 1/2"	\$15,190
3"	\$24,304
4"	\$53,165
5"	\$91,140
6"	\$189,875
8"	\$273,420