

# **WATER AND WASTEWATER RATE STUDY**

**August 7, 2013**

*Sunnyslope*   
*County Water District*

**Prepared by:**





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July 1, 2013

Mr. Don Ridenhour, P.E.  
General Manager  
Sunnyslope County Water District  
3570 Airline Hwy  
Hollister, CA 95023

**Subject: Water and Wastewater Rate Study Report**

Dear Mr. Ridenhour,

Raftelis Financial Consultants, Inc. (RFC) is pleased to provide this Water and Wastewater Rate Study Report (Report) for the Sunnyslope County Water District (District) to address current financial challenges the District is facing and to establish water and wastewater rates that are equitable and in compliance with Proposition 218.

The major objectives of the study include the following:

1. Develop financial plans for the Water and Wastewater Enterprises to ensure financial sufficiency, meet operation and maintenance (O&M) costs, ensure sufficient funding for capital replacement needs, and improve the financial health of the enterprises;
2. Create rate structures for the Water and Wastewater Enterprises that promote conservation as well as maintain equity amongst customer classes;
3. Develop a cost-of-service analysis for the Water Enterprise;
4. Develop connection fees for the Water and Wastewater Enterprises.

The Report summarizes the key findings and recommendations related to the development of the rate studies for both the Water and Wastewater Enterprises.

It has been a pleasure working with you, and we thank you and District staff for the support provided during the course of this study.

Sincerely,

Raftelis Financial Consultants, Inc.

A handwritten signature in black ink, appearing to read 'Sanjay Gaur', is written over a light blue horizontal line.

Sanjay Gaur  
Senior Manager



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# Water and Wastewater Rate Study

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## Background of the Study

In 2012, the Sunnyslope County Water District engaged RFC to conduct a Water and Wastewater Rate Study (Study) to develop a solvent financial plan as well as design rates for the water system.

The District's Water and Wastewater Enterprises are operating in an environment where revenues from rates are outpaced by operating and debt expenditures, caused primarily by significant capital expenditures for necessary upgrades to the water and wastewater systems.

For the Water Enterprise, the increase in operating and debt expenditures from the Lessalt Water Treatment Plant and West Hills Surface Water Treatment Plant represent the most significant pressure on net revenues. The District has instructed RFC to propose the level of water rates needed for financial sufficiency for the projected operating and capital expenditures and other financial obligations.

The Wastewater Enterprises face similar issues with the increasing O&M and debt outpacing revenues at current wastewater rates.

## Objectives of the Study

The major objectives of the study include the following:

1. Develop financial plans for the water and wastewater enterprises to ensure financial sufficiency, meet operations and maintenance (O&M) costs, ensure sufficient funding for capital projects, and improve the financial health of the enterprises;
2. Develop sound and sufficient water rates;
3. Review current rate structures for the Water and Wastewater Enterprises;
4. Develop a cost-of-service analysis for the Water Enterprise;
5. Develop fair and equitable water rates; and
6. Develop connection fees for the Water and Wastewater Enterprises.

## 1 Water System

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### 1.1 Water Assumptions

The study period for the Water Rate Study is from Fiscal Year (FY) 2013 to 2019. Various types of assumptions and inputs were incorporated into the Study. These assumptions were based on discussion with and/or direction from District staff (Staff), including projected accounts and annual growth rates in accounts, assumptions regarding proposed new debt issuances, and other miscellaneous assumptions. These assumptions are presented in Tables 1-1 and 1-2.

# Water and Wastewater Rate Study

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## 1.2 Water Inflation Factors

Table 1-1: Inflation Factor Assumptions

KEY FACTORS	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Salary	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Benefits	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
General	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Utility	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Insurance	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Capital	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Interest	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%

## 1.3 Water Growths and Demand Factors

Table 1-2: Account Growth Rate Assumptions and Water Demand Factor

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
<b>GROWTH RATE</b>							
Account Growth	0.0%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%
<b>DEMAND FACTOR</b>	<i>% Increase of prior consumption</i>						
Water Demand Factor	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

## 1.4 Water Financial Plan

The District owns and operates a water utility serving approximately 5,300 customers served by five groundwater wells owned and operated by the District. In addition, the District is provided its treated water supply by the Lessalt Surface Water Treatment Plant, a facility that is shared between the City of Hollister and the District. The District last conducted a comprehensive water rate study in 2009 and contracted Raftelis Financial Consultants in 2012 to conduct a comprehensive Water Rate Study.

In FY 2013, revenues generated from rates and other miscellaneous revenues are sufficient to recover the total operating expenses of the Water Enterprise. However, as mentioned earlier, the District will incur significant operating expenses as a result of the Lessalt Water Treatment Plant and the West Hills Surface Water Treatment Plant. Table 1-3 on the following page displays the projected revenues for FY 2013 – 2019 (study period). Table 1-4 displays total projected expenses for the study period.

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Table 1-3: Revenues for FY 2013 – 2019

Revenues	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Revenues from Rates	\$3.83	\$3.86	\$3.89	\$3.92	\$3.95	\$3.98	\$4.02
Revenues from Operating Lessalt & West Hills	\$0.00	\$0.60	\$1.11	\$1.24	\$2.40	\$2.47	\$2.55
Rate Stabilization Funds from SBCWD	\$0.00	\$0.50	\$1.50	\$1.50	\$1.00	\$0.50	\$0.00
Other Revenues	\$0.22	\$0.23	\$0.23	\$0.24	\$0.24	\$0.25	\$0.25
<b>Total Revenues</b>	<b>\$4.05</b>	<b>\$5.18</b>	<b>\$6.73</b>	<b>\$6.90</b>	<b>\$7.59</b>	<b>\$7.20</b>	<b>\$6.82</b>

The District will receive compensation for operating the Lessalt and West Hills treatment plant when the respective plants become operational beginning in FY 2014; this is reflected in the “Revenues from Operating Lessalt & West Hills” line item on Table 1-3. In addition, the District will be receiving rate stabilization funds from the San Benito County Water District (SBCWD) as part of an agreement between the District and SBCWD. These rate stabilization funds are reflected in Table 1-3 under the line item “Rate Stabilization Funds from SBCWD”. The rate stabilization funds will be utilized by the District to ensure it meets debt coverage requirements. The revenue numbers for both the operations of the Lessalt & West Hills treatment plant as well as the rate stabilization funds were provided by District staff.

Table 1-4: Expenses for FY 2013 - 2019

Expenditures	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
San Benito Capital Recovery	\$0.00	\$0.39	\$1.20	\$1.20	\$1.20	\$1.20	\$1.20
Current Debt	\$0.50	\$0.50	\$0.42	\$0.33	\$0.33	\$0.33	\$0.33
Lessalt & West Hills O&M	\$0.00	\$1.43	\$2.59	\$2.78	\$4.62	\$4.73	\$4.83
SCWD O&M	\$3.19	\$2.66	\$2.75	\$2.85	\$2.95	\$3.05	\$3.16
<b>Total Expenses</b>	<b>\$3.69</b>	<b>\$4.98</b>	<b>\$6.96</b>	<b>\$7.15</b>	<b>\$9.09</b>	<b>\$9.30</b>	<b>\$9.52</b>

# Water and Wastewater Rate Study

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As shown in Table 1-4, the District will incur additional expenses based on the operations and maintenance of the Lessalt and West Hills treatment plant. This plant will become operational in FY 2014; the additional expenses are shown on Table 1-4 under the “Lessalt & West Hills O&M” line item. In addition, the District will incur capital expenses related to the treatment plant upgrades, these expenses are reflected on Table 1-4 under the line item “San Benito Capital Recovery”. The Lessalt & West Hills O&M expense numbers as well as the San Benito Capital Recovery numbers were provided by the District.

## 1.4.1 Status Quo Financial Plan

As shown in Table 1-3 and Table 1-4, total expenditures rapidly outpace total revenues. As a result of these additional expenses, the District is unable to maintain fiscal sustainability and solvency under the current water rates (Status Quo). The causes of the increase in expenses are the O&M and Debt expense incurred as a result of the Lessalt & West Hills projects. The District’s O&M expenses are growing at less than 3 percent per year. Figures 1-1, 1-2, 1-3, 1-4 are a graphical representation of the District under current or “Status Quo” water rates.

Figure 1-1: Status Quo Revenue Adjustments and Debt Coverage

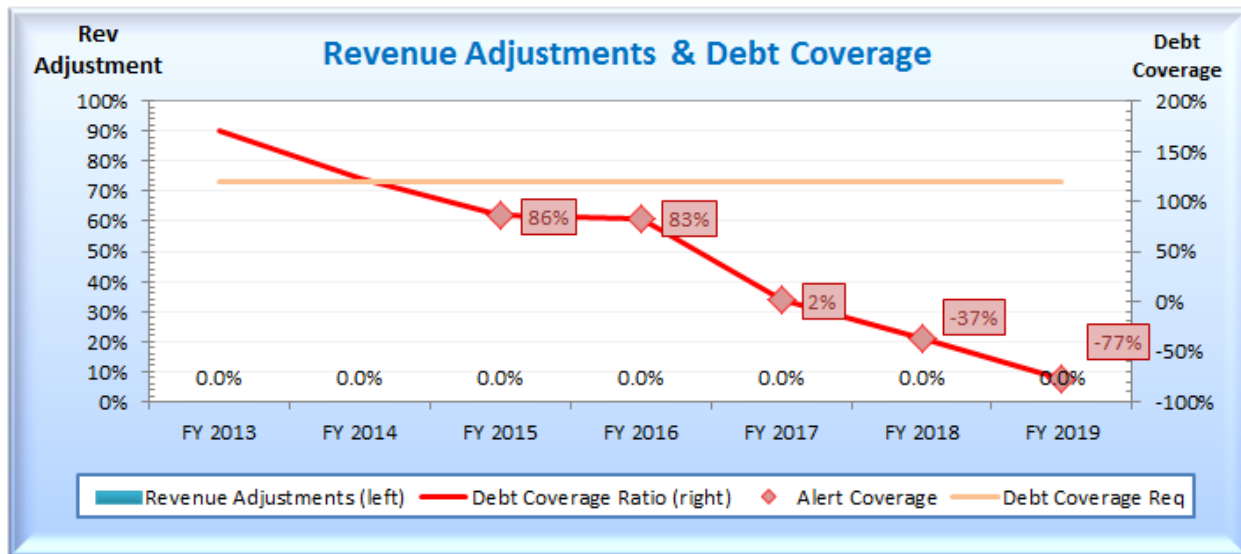


Figure 1-1 displays the revenue adjustments and the debt coverage for the District under the Status Quo. As displayed, there are no revenue adjustments because the Status Quo scenario assumes current rates, which means no revenue adjustments. The blue bar displays the revenue adjustments, which is at 0 percent. The orange line represents the required debt coverage taken from the official statements and agreed upon agreement with SBCWD, which is set at 120 percent. The red line displays the debt coverage ratio, while the red dot, the alert balance, displays the exact debt coverage ratio in percentage terms only if the debt coverage drops below the required percentage. The District will face debt coverage issues beginning in FY 2015. This is the result of total expenditures outpacing total revenues.



**Figure 1-2: Status Quo Operating Financial Plan**

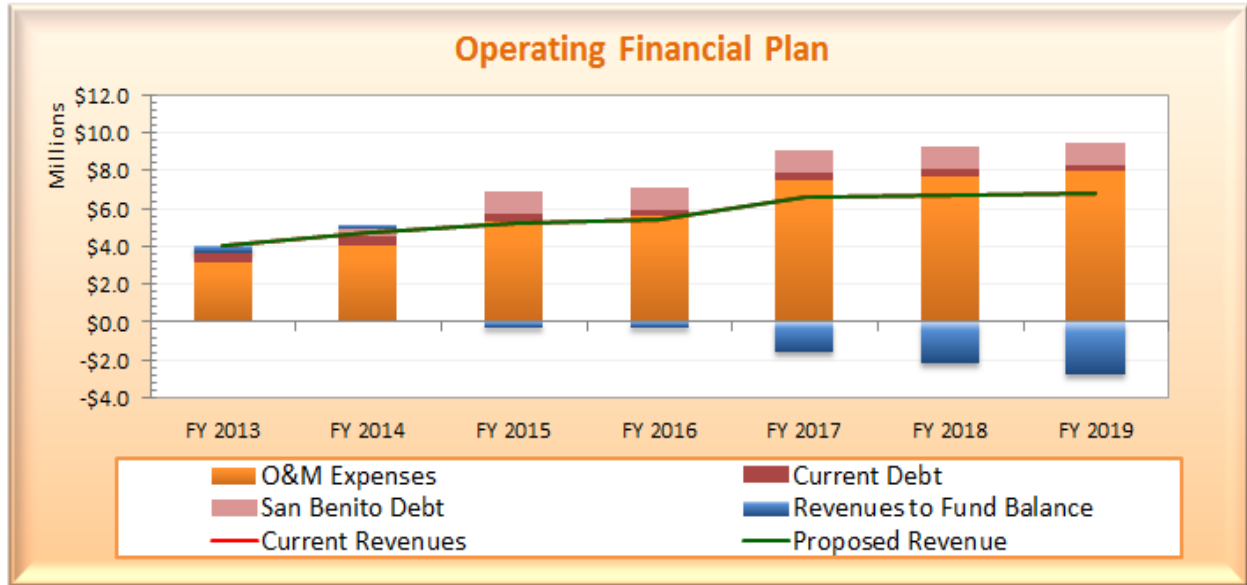
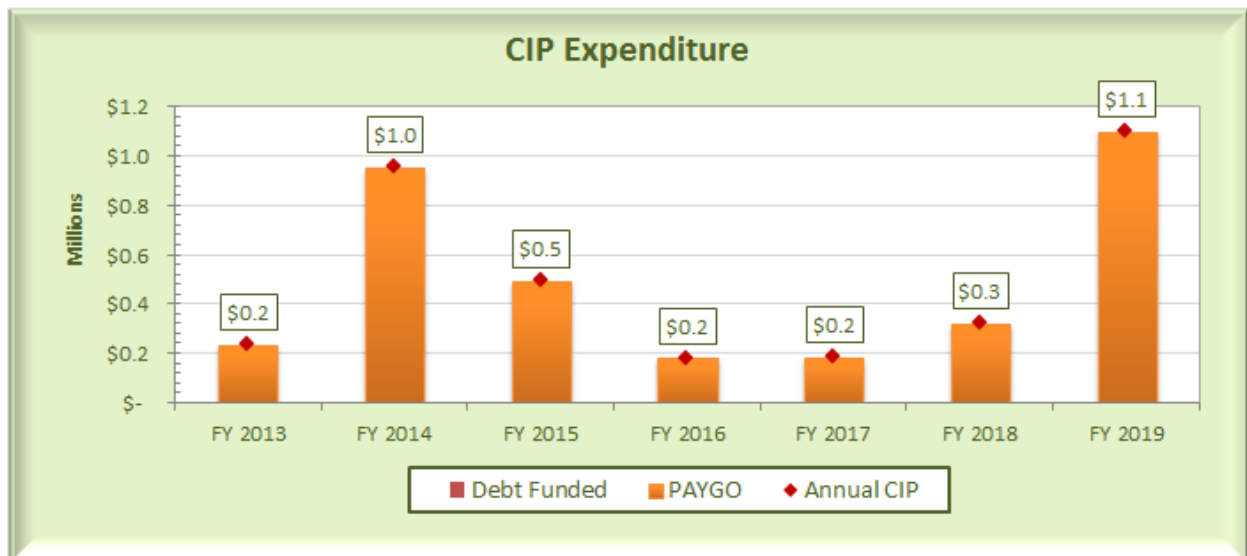


Figure 1-2 displays the operating financial plan. The different colored, stacked bars represent the Districts operating and non-operating expenses. The Red line represents revenues at current rates, while the green line represents revenues at proposed rates. Since this chart displays the Status Quo, proposed and current revenues are equal as there are no proposed revenue adjustments under the Status Quo scenario. The blue bar displays the revenues to Fund Balance and shows that the District will be at a deficit beginning FY 2015. Under the Status Quo scenario, the deficit grows each year.

**Figure 1-3: Status Quo Capital Improvement Projects (CIP)**



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Figure 1-5 displays the Capital Improvement Project (CIP) schedule through the study period. The orange bars display the amount of CIP the District will expend per year that is cash funded. The Red bars display the amount of CIP that will be debt funded. The District does not plan on issuing any debt to finance future Capital Projects.

Figure 1-4: Status Quo Water Fund

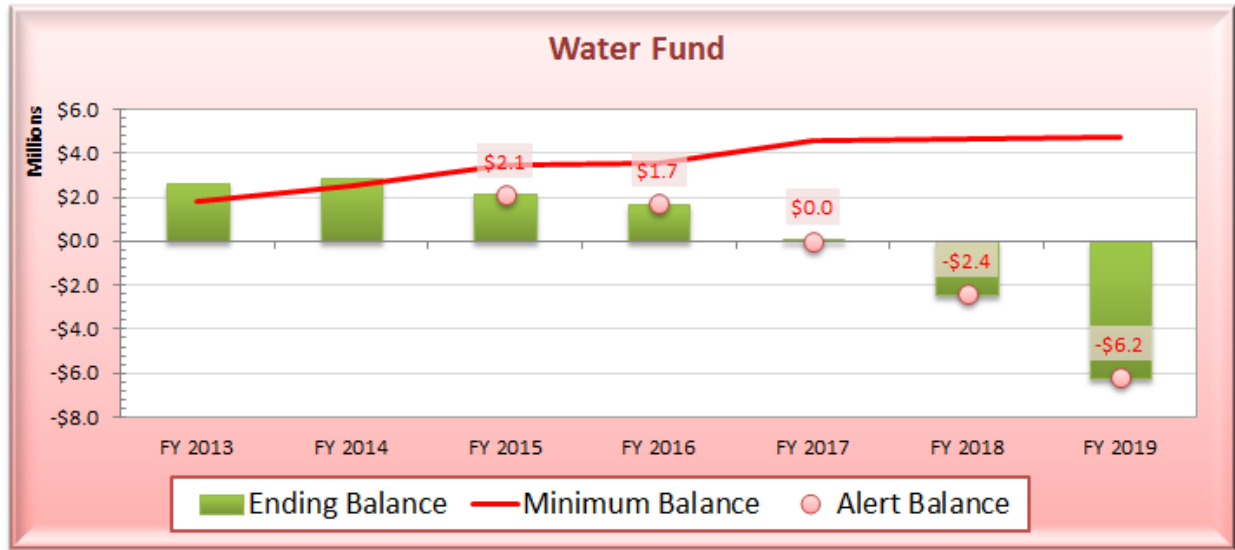


Figure 1-4 displays the Water Fund balance. This figure shows the amount of cash that the District has available for the Water Enterprise. The Green bars display the projected amount of cash available each fiscal year. The Red line indicates the minimum balance the District should have in its Water Fund; this amount is set by the District and is based on the District's fiscal policy, 50 percent of the annual operating budget. The red dot is an alert balance, when the projected balance falls under the minimum balance the alert balance displays the amount of cash in the Water Fund. As displayed in Figure 1-4, under Status Quo, the Water Fund will fall below the minimum balance in 2015 and will continue to fall in the following years. At the end of the study period, the Water Fund is projected to be at negative \$6.2 million under Status Quo water rates.

Table 1-5, below, further illustrates the District's financial position under the Status Quo by displaying the information in a tabular Pro Forma format. Table 1-5 displays all the revenues, expenditures (including proposed debt, capital expenditures and O&M) and the water fund balance.

# Water and Wastewater Rate Study

## Sunnyslope County Water District

**Table 1-5: Status Quo Pro Forma**

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
<b>Revenues</b>							
Revenues from Rates	\$3,827,644	\$3,858,364	\$3,889,332	\$3,920,549	\$3,952,018	\$3,983,740	\$4,015,718
Proposed Rev Adjustments	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Revenues	\$220,000	\$225,302	\$230,753	\$236,356	\$242,118	\$248,041	\$254,132
West Hills & Lessalt O&M Revenue	\$0	\$599,705	\$1,108,311	\$1,241,001	\$2,400,155	\$2,472,974	\$2,548,002
San Benito Rate Stabilization Funds	\$0	\$500,000	\$1,500,000	\$1,500,000	\$1,000,000	\$500,000	\$0
<b>Total Revenues:</b>	<b>\$4,047,644</b>	<b>\$5,183,371</b>	<b>\$6,728,396</b>	<b>\$6,897,907</b>	<b>\$7,594,291</b>	<b>\$7,204,755</b>	<b>\$6,817,851</b>
<b>Expenditures</b>							
Sunnyslope O&M Expenditures	\$3,190,149	\$2,658,370	\$2,751,426	\$2,847,912	\$2,947,960	\$3,051,710	\$3,159,308
Lessalt & West Hills O&M	\$0	\$996,268	\$1,846,385	\$1,846,179	\$2,734,127	\$2,781,115	\$2,829,529
Additional Lessalt/West Hills Operating Expense	\$0	\$430,000	\$746,750	\$931,013	\$1,887,253	\$1,944,168	\$2,002,493
Current Debt	\$504,627	\$504,127	\$418,045	\$331,794	\$330,130	\$332,966	\$330,326
San Benito Capital Recovery	\$0	\$387,488	\$1,195,034	\$1,195,034	\$1,195,034	\$1,195,034	\$1,195,034
<b>Total Expenditures:</b>	<b>\$3,694,776</b>	<b>\$4,976,253</b>	<b>\$6,957,639</b>	<b>\$7,151,931</b>	<b>\$9,094,504</b>	<b>\$9,304,994</b>	<b>\$9,516,690</b>
<b>Net Revenues</b>							
	<b>\$352,868</b>	<b>\$207,118</b>	<b>-\$229,244</b>	<b>-\$254,024</b>	<b>-\$1,500,213</b>	<b>-\$2,100,238</b>	<b>-\$2,698,838</b>
<b>Debt Coverage</b>	170%	123%	86%	83%	2%	-37%	-77%
<b>Water Fund</b>							
Beginning Balance	\$2,478,342	\$2,602,431	\$2,850,844	\$2,135,704	\$1,706,384	\$22,801	-\$2,401,956
CIP Expenditures	-\$236,400	-\$955,400	-\$493,376	-\$181,060	-\$185,964	-\$324,519	-\$1,103,383
Net Revenues	\$352,868	\$207,118	-\$229,244	-\$254,024	-\$1,500,213	-\$2,100,238	-\$2,698,838
Debt Proceeds	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Interest Income	\$7,621	\$6,695	\$7,480	\$5,763	\$2,594	\$0	\$0
JPA Funds	\$0	\$990,000	\$0	\$0	\$0	\$0	\$0
Ending Balance	\$2,602,431	\$2,850,844	\$2,135,704	\$1,706,384	\$22,801	-\$2,401,956	-\$6,204,177

To ensure that the Water Enterprise will have adequate revenues to fund operating expenses, capital expenditures, and meet debt coverage requirements, RFC recommends the following water revenue adjustments (Table 1-6). Detailed discussion of the water financial plan can be seen in the following section.

**Table 1-6: Proposed Water Revenue Adjustments**

Effective Date	Proposed Water Revenue Adjustments
21-Dec-13	11.5 percent
21-Dec-14	11.5 percent
21-Dec-15	11.5 percent
21-Dec-16	11.5 percent
21-Dec-17	11.5 percent
21-Dec-18	3.0 percent

### 1.4.2 Proposed Financial Plan

As mentioned in the previous sections, proposed expenses greatly outpace revenues. In order to bridge the gap, revenue adjustments as shown in Table 1-6 will be necessary for the District to remain

# Water and Wastewater Rate Study

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financially solvent. Figures 1-5, 1-6, 1-7 and 1-8 graphically display the effects of the proposed revenue adjustments on the District’s financial position.

Figure 1-5: Proposed Revenue Adjustment & Debt Coverage

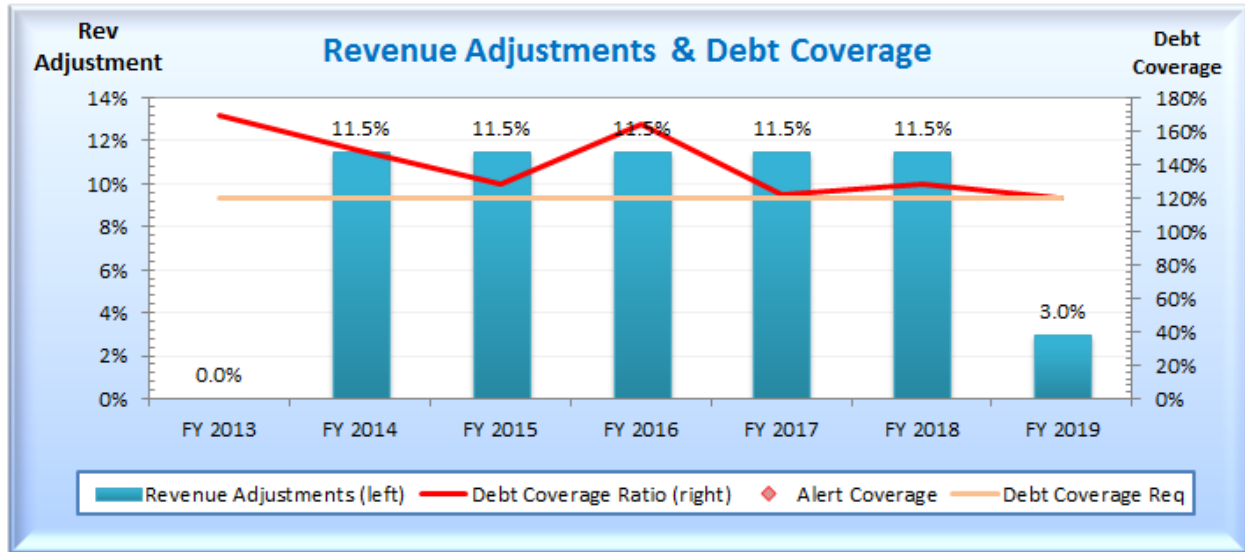


Figure 1-5 displays the revenue adjustments of the proposed financial plan. The District will increase revenues by 11.5 percent for 5 years (FY 2014 – 2018) and 3 percent for FY 2019. Under these revenue adjustments, the District will satisfy debt coverage requirements.

Figure 1-6: Proposed Operating Financial Plan

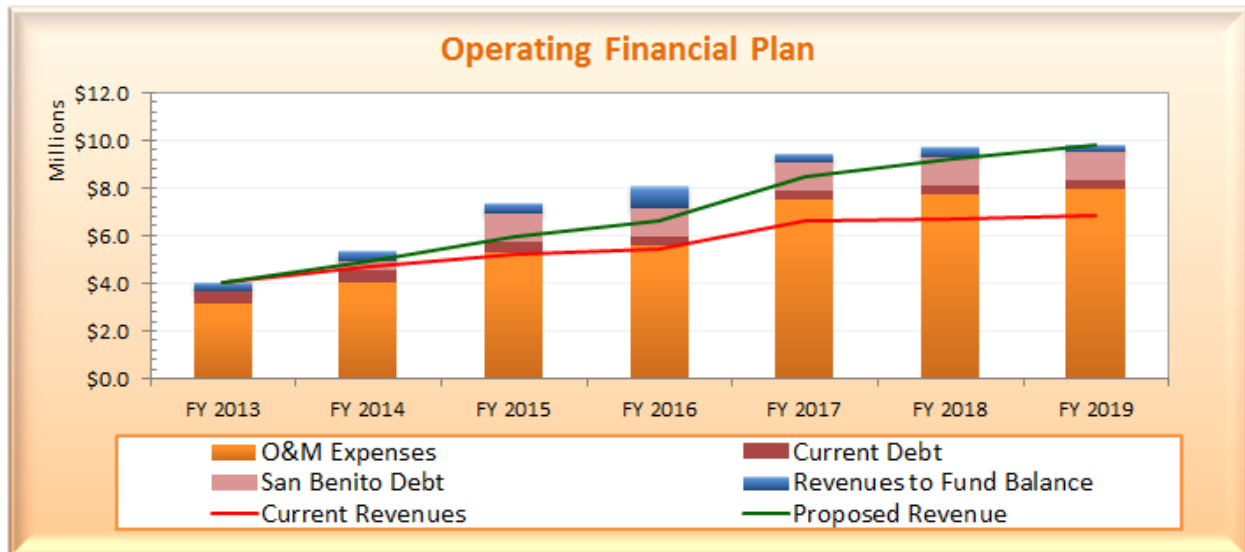
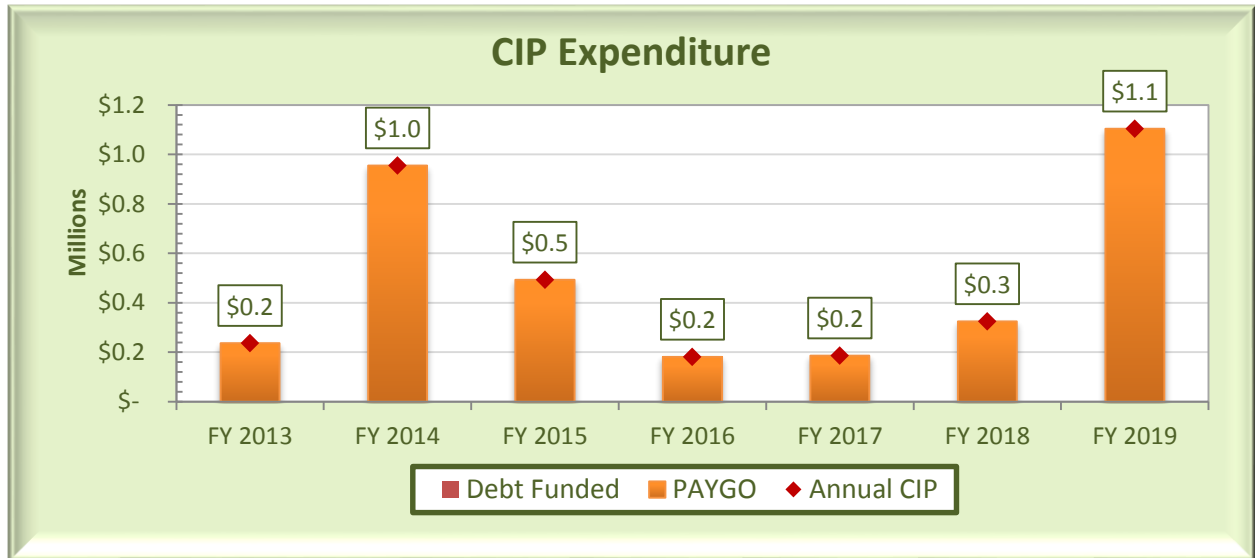


Figure 1-6 displays the proposed operating financial plan. As mentioned earlier, the green line displays the proposed revenues. Under the proposed scenario, the District is projected to collect a nominal surplus each FY year. As mentioned in the previous section, the blue bar represents the revenues to fund balance, which is positive in each FY year under the proposed scenario.

**Figure 1-7: Proposed CIP Expenditures**



The CIP expenditures are the same under both the Status Quo and Proposed scenarios.

**Figure 1-8: Proposed Water Fund Balance**

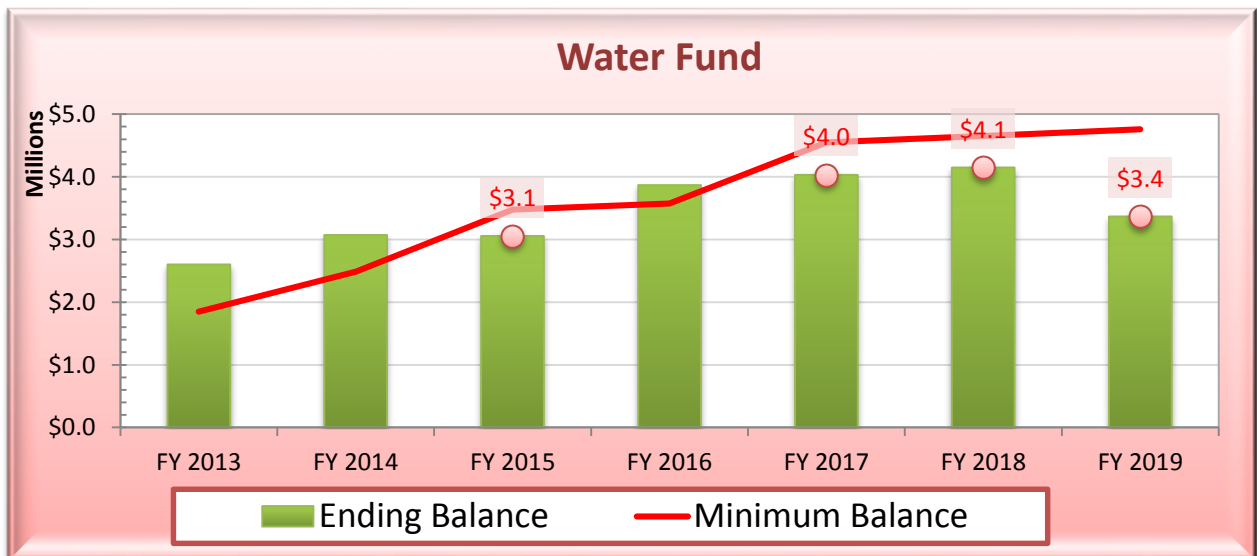


Figure 1-11 displays the Water Fund Balance under the Proposed Scenario. As a result of increasing revenues to the level shown on Figure 1-8, the Water Fund Balance remains healthy throughout the Study period.

# Water and Wastewater Rate Study

## Sunnyslope County Water District

**Table 1-7: Proposed Pro Forma**

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
<b>Revenues</b>							
Revenues from Rates	\$3,827,644	\$3,858,364	\$3,889,332	\$3,920,549	\$3,952,018	\$3,983,740	\$4,015,718
Proposed Rev Adjustments	\$0	\$221,856	\$696,628	\$1,233,838	\$1,841,254	\$2,527,607	\$3,008,591
Other Revenues	\$220,000	\$225,302	\$230,753	\$236,356	\$242,118	\$248,041	\$254,132
West Hills & Lessalt O&M Revenue	\$0	\$599,705	\$1,108,311	\$1,241,001	\$2,400,155	\$2,472,974	\$2,548,002
San Benito Rate Stabilization Funds	\$0	\$500,000	\$1,500,000	\$1,500,000	\$1,000,000	\$500,000	\$0
<b>Total Revenues:</b>	<b>\$4,047,644</b>	<b>\$5,405,227</b>	<b>\$7,425,024</b>	<b>\$8,131,745</b>	<b>\$9,435,545</b>	<b>\$9,732,362</b>	<b>\$9,826,442</b>
<b>Expenditures</b>							
Sunnyslope O&M Expenditures	\$3,190,149	\$2,658,370	\$2,751,426	\$2,847,912	\$2,947,960	\$3,051,710	\$3,159,308
Lessalt & West Hills O&M	\$0	\$996,268	\$1,846,385	\$1,846,179	\$2,734,127	\$2,781,115	\$2,829,529
Additional Lessalt/West Hills Operating Expense	\$0	\$430,000	\$746,750	\$931,013	\$1,887,253	\$1,944,168	\$2,002,493
Current Debt	\$504,627	\$504,127	\$418,045	\$331,794	\$330,130	\$332,966	\$330,326
San Benito Capital Recovery	\$0	\$387,488	\$1,195,034	\$1,195,034	\$1,195,034	\$1,195,034	\$1,195,034
<b>Total Expenditures:</b>	<b>\$3,694,776</b>	<b>\$4,976,253</b>	<b>\$6,957,639</b>	<b>\$7,151,931</b>	<b>\$9,094,504</b>	<b>\$9,304,994</b>	<b>\$9,516,690</b>
<b>Net Revenues</b>							
	<b>\$352,868</b>	<b>\$428,974</b>	<b>\$467,384</b>	<b>\$979,814</b>	<b>\$341,041</b>	<b>\$427,369</b>	<b>\$309,752</b>
<b>Debt Coverage</b>	<b>170%</b>	<b>148%</b>	<b>129%</b>	<b>164%</b>	<b>122%</b>	<b>128%</b>	<b>120%</b>
<b>Water Fund</b>							
Beginning Balance	\$2,478,342	\$2,602,431	\$3,073,033	\$3,056,236	\$3,865,372	\$4,032,296	\$4,147,415
CIP Expenditures	-\$236,400	-\$955,400	-\$493,376	-\$181,060	-\$185,964	-\$324,519	-\$1,103,383
Net Revenues	\$352,868	\$428,974	\$467,384	\$979,814	\$341,041	\$427,369	\$309,752
Debt Proceeds	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Interest Income	\$7,621	\$7,028	\$9,194	\$10,382	\$11,847	\$12,270	\$11,269
JPA Funds	\$0	\$990,000	\$0	\$0	\$0	\$0	\$0
Ending Balance	\$2,602,431	\$3,073,033	\$3,056,236	\$3,865,372	\$4,032,296	\$4,147,415	\$3,365,053

Table 1-7 displays the proposed financial plan scenario in a Pro Forma format. Even with the proposed rate increases, Operating Revenue is unable to keep up with total expenditures. In order to stabilize rates and to prevent drastic rate increases in a short period of time, the District has opted to use funds from San Benito County Water District (SBCWD) to stabilize rates. From FY 2014 – FY 2018, District will use the rate stabilization funds to assist in its transition to higher water rates. This will enable the District to steadily increase water rates and avoid a large rate jump. This will also enable the District to meet Debt Coverage Ratio requirements and mitigate risk by increasing the Water Fund balance.

## 2 Rate Design

### 2.1 Background

The District's current rate design is a five-tiered inclining water rate system. The current rates and tiers are shown in Table 2-1 on the following page.

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Table 2-1: Current Rates and Tiers

Meter Size	Water Meter	Fire Meter	Tiers	Class A	Class B	Class C
5/8"	\$17.57	\$3.51	Tier 1: 1 - 10 HCF	\$2.02	\$2.08	\$2.42
3/4"	\$19.33	\$3.87	Tier 2: 10.01 - 20 HCF	\$2.35	\$2.41	\$2.82
1"	\$24.60	\$4.92	Tier 3: 20.01 - 40 HCF	\$2.95	\$3.01	\$3.54
1 1/2"	\$31.63	\$6.33	Tier 4: 40.01 - 60 HCF	\$4.11	\$4.17	\$4.93
2"	\$50.95	\$10.19	Tier 5: 60+ HCF	\$7.95	\$8.01	\$9.54
3"	\$193.27	\$38.65				
4"	\$245.98	\$49.20				
6"	\$368.97	\$73.79				
8"	\$509.53	\$101.91				

Table 2-1 displays the Current Rates and Tiers. Tier 1 encompasses 100 cubic feet (HCF<sup>1</sup>) of usage to 10 HCF, Tier 2 - 10.01 HCF to 20 HCF, Tier 3 - 20.01 HCF to 40 HCF, Tier 4 – 40.01 HCF to 60 HCF and Tier 5 all usage above 60 HCF. The District also has three different Zones (Class A<sup>2</sup>, Class B<sup>3</sup> and Class C<sup>4</sup>). These Zones are described in more detail in the footnotes below.

## 2.2 Rate Methodology Background

Proposition 218 (California Constitution Article 13D) states that:

1. A property-related charge (such as water rates) imposed by a public agency on a parcel shall not exceed the funds required to provide the property related service.
2. Revenues derived by the charge shall not be used for any other purpose other than that for which the charge was imposed.
3. The amount of the charge imposed upon any parcel shall not exceed the proportional cost of service attributable to the parcel.
4. No charge may be imposed for a service unless that service is actually used or immediately available to the owner of property.
5. A written notice of the proposed charge shall be mailed to the record owner of each parcel at least 45 days prior to the public hearing, when the agency considers all written protests against the charge.

<sup>1</sup> Hundred Cubic Feet (HCF) is equal to 748 gallons

<sup>2</sup> Class A = Inside Improvement District No 1 & Inside SBCWD, Zone 3

<sup>3</sup> Class B = Inside Improvement District No 1 & Outside SBCWD, Zone 3

<sup>4</sup> Class C = Outside District

# Water and Wastewater Rate Study

## Sunnyslope County Water District

As stated in the Manual M1, “the costs of water rates and charges should be recovered from classes of customers in proportion to the cost of serving those customers.”<sup>5</sup>

Prop 218 ensures that Water Rates cannot be “arbitrary and capricious”, meaning that the Rate setting methodology must be sound and there must be a nexus between costs and the rate charge. In the Rate Methodology, RFC ensures that all aspects of Proposition 218 are followed and that it creates rates that charge customers equitably.

### 2.3 Rate Methodology

After much discussion with District Staff and the Board of Directors, the goals and objectives of the rates are as follows: Affordability for essential use, conservation and revenue stability. In order to achieve these objectives, RFC designed rates with these tenants in mind.

The total utility revenue requirements net of revenue credits from miscellaneous sources is, by definition, the cost of providing service as shown in Table 2-2. This cost is then used as the basis to develop unit costs for the water components and to allocate costs to the various customer classes in proportion to the water services rendered. The concept of proportionate allocation to customer classes requires that allocations should take into consideration not only for the average quantity of water used but also the peak rate at which it is consumed. The water system is designed to handle peak demands and the costs associated with design and construction of facilities used to meet peak demands; these costs need to be allocated so that peaking costs can be recovered appropriately. In this study, water rates were calculated for FY 2014, and accordingly FY 2014 is defined as the Test Year. Test Year revenue requirements are used in the cost allocation process. Subsequent years’ revenue adjustments are incremental and the rate adjustments for future years are calculated across the board. The District should review the cost of service analysis every five years to ensure that the rates are consistent with the costs of providing service.

The annual revenue requirements or costs of service to be recovered from commodity charges include operations and maintenance (O&M) expenses and capital costs. O&M expenses include costs directly related to the supply, treatment, and distribution of water as well as routine maintenance of system facilities. This maintenance is often referred to as routine capital and represents the annual recurring capital outlay for minor system improvements and purchases of materials and supplies.

The total FY 2014 cost of service to be recovered from the District’s water customers, shown in Table 2-2, is estimated at approximately \$4.3 million. Approximately \$3.4 million of this total is for operating costs and the remaining \$0.9 million is for existing debt service for capital projects. The cost of service analysis is based upon the premise that the utility must generate annual revenues adequate to meet the estimated annual revenue requirements. As part of the cost of service analysis, revenues from sources other than water rates and charges (e.g. revenues from miscellaneous services) are deducted from the appropriate cost elements. Additional deductions are made to reflect interest income and other non-

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<sup>5</sup> Ziebertz, Bill, AWWA Staff, Principles of Water Rates Fees and Charges 6<sup>th</sup> Edition (M1), 2012, Print



# Water and Wastewater Rate Study

Sunnyslope County Water District

operating income during FY 2014. Adjustments are also made to account for cash balances to ensure adequate collection of revenue and to determine annual revenues needed from rates.

**Table 2-2: Current Rates and Tiers**

	<b>Operating Expense</b>	<b>2014 Capital Expense</b>	<b>Total</b>
<b>Revenue Requirements</b>			
O&M Expenses	\$ 4,084,638		\$ 4,084,638
Existing Debt Service		\$ 891,615	\$ 891,615
Proposed Debt Service		\$ -	\$ -
Capital Projects Expenses (PAYGO)			
<b>Subtotal</b>	<b>\$ 4,084,638</b>	<b>\$ 891,615</b>	<b>\$ 4,976,253</b>
<b>Less Rev. Requirements Met from Other Sources</b>			
Installation Fees	\$ 3,024		\$ 3,024
Late Fees	\$ 56,448		\$ 56,448
Allocate from G&A	\$ 165,830		\$ 165,830
West Hills & Lessalt O&M Revenue	\$ 599,705		\$ 599,705
San Benito Rate Stabilization Funds	\$ 500,000		\$ 500,000
<b>Subtotal</b>	<b>\$ 1,325,007</b>	<b>\$ -</b>	<b>\$ 1,325,007</b>
<b>Less Adjustments</b>			
Adjustments for Annual Cash Balance	\$ (428,974)		\$ (428,974)
Adjustments to Annualize Rate Increase	\$ (221,856)		\$ (221,856)
<b>Net Revenue to be recovered from Rates</b>	<b>\$ 3,410,461</b>	<b>\$ 891,615</b>	<b>\$ 4,302,076</b>

To allocate the cost of service among the different customer classes, costs first need to be allocated to the appropriate water cost components. The following section describes the allocation of the operating and capital costs of service to the appropriate parameters of the water system.

## 2.3.1 Functional Cost Components

The total cost of water service is analyzed by system function in order to equitably distribute costs of service to the various classes of customers. For this analysis, water utility costs of service are assigned under the Base-Extra Capacity method to three basic functional cost components: base costs, extra capacity or peaking costs, and customer-service related costs. This method is consistent with the American Water Works Association M1 Manual, and is widely used in the water industry to design rates for retail customers.

# Water and Wastewater Rate Study

Sunnyslope County Water District

## Base Costs

Base costs are those operating and capital costs of the water system associated with serving customers at a constant average rate of use. For the District, the base is set at the average winter usage for single-family residents. Supply costs are typically considered to be based on average usage.

## Extra Capacity Costs

Extra capacity or peaking costs represent those costs incurred to meet customer peak demands for water in excess of average day usage. Total extra capacity costs are subdivided into costs associated with maximum day and maximum hour demands. The maximum day demand is the maximum amount of water used in a single day in a year. The maximum hour (Max Hour) demand is the maximum usage in an hour on the maximum usage (Max Day) day. Different facilities are designed to meet different peaking characteristics. For example, transmission lines are designed to meet Max Day requirements. Transmission lines have to be designed larger than they would be if the same annual amount of water were being used at a constant rate throughout the year. The cost associated with constructing a larger line is based on the “overdesign” and is proportioned on the Max Day factor. For example, if the Max Day factor is 2.0, then the line has to be designed twice as large as required to meet just the average usage conditions. In this case, half of the cost would be allocated to Base or average and the other half allocated to Max Day. Table 2-3 displays the Base and Extra Capacity rates that are associated with the aforementioned costs. In addition, Table 2-3 displays the proposed commodity rates for FY 2014 for Single Family Residential (SFR) customer as well as Non-Single Family Residential (NON-SFR) customers.

**Table 2-3: Proposed Commodity Rates and Tiers**

Customer Class	Block width (HCF)	Base Rate	Peaking Rate	Proposed Total Rate	Existing Rate
<b>SFR</b>					
Tier 1	10	\$ 1.99	\$ -	\$ 1.99	\$2.02
Tier 2	20	\$ 1.99	\$ 0.96	\$ 2.95	\$2.35
Tier 3	20+	\$ 1.99	\$ 2.38	\$ 4.38	\$3.37
<b>Total</b>					
<b>Non SFR</b>		\$ 1.99	\$ 0.66	\$ 2.65	

The proposed tiers for the new commodity rates are based off usage analysis of the District. The Tier 1 width of 10 HCF is based off the average winter usage for single-family residential customers. The Tier 1 price reflects only the base cost. The Tier 2 block width is based off average summer usage for single family residential customers and the price is composed of the base cost of delivery plus additional peaking costs. Tier 3 block width is anything above 20 HCF of usage. Non-single family residential customers will be charged a flat rate.

# Water and Wastewater Rate Study

Sunnyslope County Water District

## Customer service related costs

Customer service costs include customer-related and meter-related costs. Customer costs are uniform for all customers and include such costs as meter reading, billing, collecting, and accounting. Meter service costs include maintenance and capital costs associated with meters and a portion of the capacity related costs. RFC utilized the American Water Works Association (AWWA) Meter Ratio in calculating the meter component as is industry practice. These costs are assigned based on meter size or equivalent meter capacity. Table 2-4 displays the proposed FY 2014 meter charges separated by meter size. Total proposed meter charge includes both billing and customer service charge and the meter component charge.

**Table 2-4: Proposed Meter Charge**

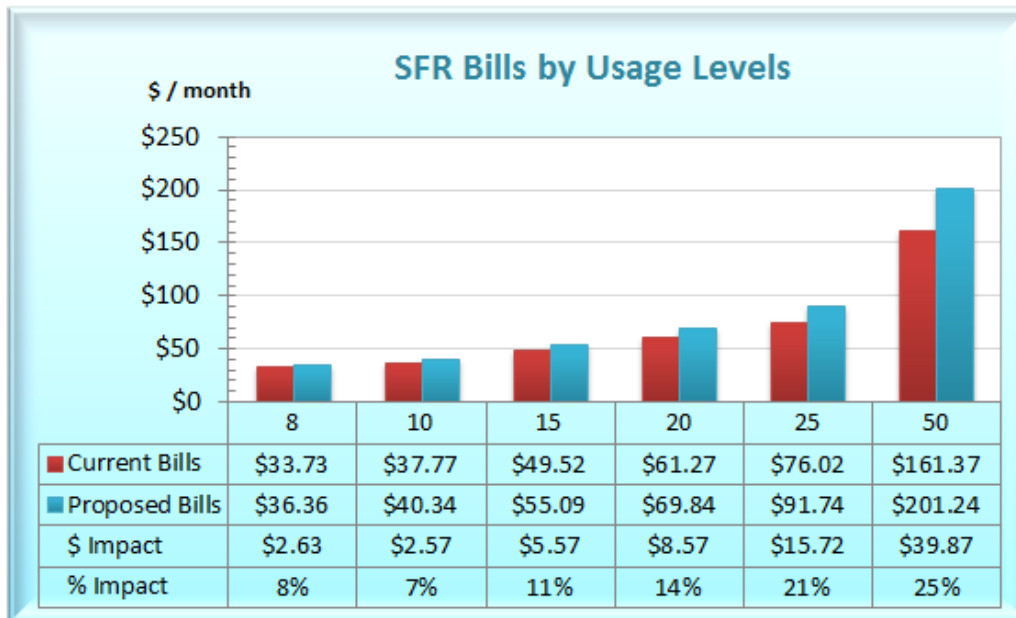
Meter Size	AWWA Meter Ratio	Current Meter Ratios	Meter Component	Billing & Customer Service	Proposed Meter Charges	Existing Charges	% Difference	\$ Difference
5/8"	1.00	1.00	\$ 12.99	\$ 7.45	\$ 20.44	\$ 17.57	16.3%	\$ 2.87
3/4"	1.00	1.00	\$ 12.99	\$ 7.45	\$ 20.44	\$ 19.33	5.7%	\$ 1.11
1"	1.00	1.27	\$ 12.99	\$ 7.45	\$ 20.44	\$ 24.60	-16.9%	\$ (4.16)
1 1/2"	2.00	1.64	\$ 25.98	\$ 7.45	\$ 33.43	\$ 31.63	5.7%	\$ 1.80
2"	3.20	2.64	\$ 41.56	\$ 7.45	\$ 49.01	\$ 50.95	-3.8%	\$ (1.94)
3"	7.00	10.00	\$ 90.92	\$ 7.45	\$ 98.37	\$ 193.27	-49.1%	\$ (94.90)
4"	12.60	12.73	\$ 163.65	\$ 7.45	\$ 171.10	\$ 245.98	-30.4%	\$ (74.88)
6"	26.00	19.09	\$ 337.69	\$ 7.45	\$ 345.14	\$ 368.97	-6.5%	\$ (23.83)
8"	48.00	26.36	\$ 623.42	\$ 7.45	\$ 630.88	\$ 509.53	23.8%	\$ 121.35

The differences between the existing charges and proposed charges are shown by dollar amount and percentage change in Table 2-4 above.

## 2.4 Rate Impacts

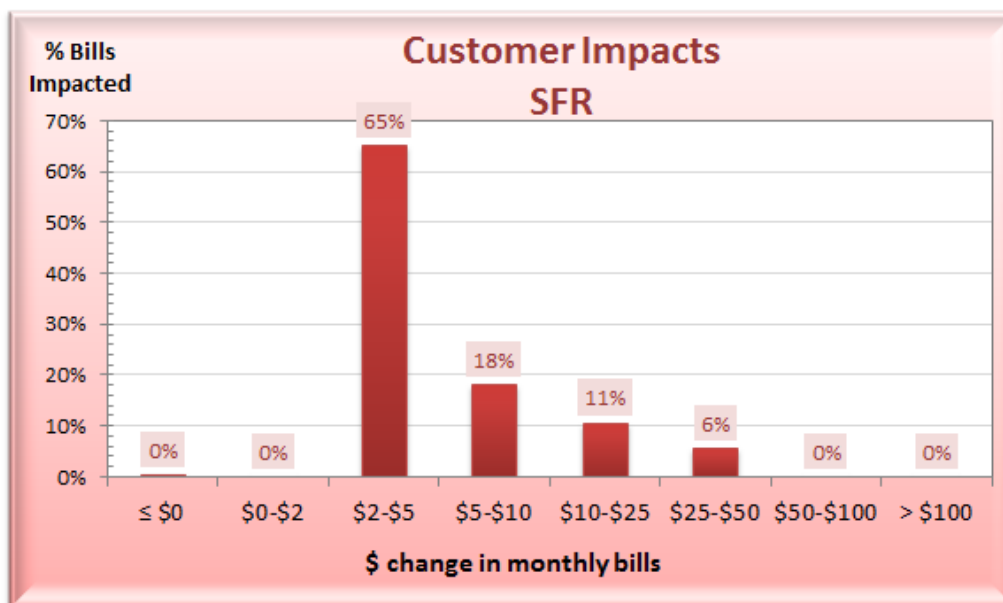
One of the goals of designing the proposed Rates is affordability for essential use and water conservation. RFC designed the Tier widths to reflect these goals. Tier 1, which is based off of average winter usage, is three cents lower than the previous Tier 1 rate. RFC has prepared an analysis to examine the impacts of the proposed rates. The following customer impacts chart shown in Figure 2-1 displays the bill impacts for SFR customers at different usage levels ranging from 8 HCF to 50 HCF per month.

Figure 2-1: Single Family Residential Usage Impacts



As shown in Figure 2-1, customers that have relatively lower water usage (from 8 to 10 HCF per month) experience a relatively modest increase in their bills. The more water a customer uses, the bigger the percentage increase is in their bill. A customer that uses 50 HCF per month, which is well above the District’s average usage will experience a 25 percent increase in their monthly bill. This rate allows customers to control their water bills with their monthly water usage. While Figure 2-1 displays the proposed monthly water bills for a sample customer, Figure 2-2 displays the SFR customer impacts for the District as a whole.

Figure 2-2: Single Family Residential Customer Impacts



# Water and Wastewater Rate Study

Sunnyslope County Water District

The majority (65 percent) of customers in the District will experience a \$2 to \$5 dollar increase in their monthly bill. This majority represents the average SFR customer in the District. While the average customer will experience a relatively small change in their monthly bill, there will be a few large water-usage customers that will experience a \$25 to \$50 increase in their monthly bill.

## 2.5 Proposed Water Rates

Table 2-5 displays the proposed rates from FY 2014 to 2019. FY 2014 rates were developed with the methodology explained in section 2.3. Rates from FY 2015 and onward correspond to the revenue adjustments shown on Table 1-3. The Rates will increase by 11.5 percent from FY 2015 to 2018 and 3 percent in FY 2019. Table 2-5 displays the proposed Commodity Rates and the Meter charge for the District.

# Water and Wastewater Rate Study

Sunnyslope County Water District

Table 2-5 Proposed Rates<sup>6</sup>

Customer Class	Effective Date					
	12/2013	12/2014	12/2015	12/2016	12/2017	12/2018
<b>SFR</b>						
<b>Tier 1 –</b>						
0 – 10 HCF	\$1.99	\$2.22	\$2.47	\$2.76	\$3.08	\$3.17
<b>Tier 2 –</b>						
11 – 20 HCF	\$2.95	\$3.29	\$3.67	\$4.09	\$4.56	\$4.70
<b>Tier 3 –</b>						
20+ HCF	\$4.38	\$4.88	\$5.45	\$6.07	\$6.77	\$6.97
	12/2013	12/2014	12/2015	12/2016	12/2017	12/2018
<b>Non SFR</b>	\$2.65	\$2.95	\$3.29	\$3.67	\$4.10	\$4.22
Meter Size	12/2013	12/2014	12/2015	12/2016	12/2017	FY 2018
5/8"	\$20.44	\$22.79	\$25.41	\$28.33	\$31.59	\$32.54
3/4"	\$20.44	\$22.79	\$25.41	\$28.33	\$31.59	\$32.54
1"	\$20.44	\$22.79	\$25.41	\$28.33	\$31.59	\$32.54
1 1/2"	\$33.43	\$37.27	\$41.56	\$46.34	\$51.67	\$53.22
2"	\$49.01	\$54.65	\$60.93	\$67.94	\$75.75	\$78.02
3"	\$98.37	\$109.68	\$122.30	\$136.36	\$152.04	\$156.60
4"	\$171.10	\$190.78	\$212.72	\$237.18	\$264.45	\$272.39
6"	\$345.14	\$384.83	\$429.09	\$478.43	\$533.45	\$549.45
8"	\$630.88	\$703.43	\$784.33	\$874.52	\$975.09	\$1,004.35

## 2.5.1 Fire Service Charges

Fire service charges were also developed as part of the Study. Table 2-6 displays the proposed fire service charges for the study period.

<sup>6</sup> Zone 3 commodity rates will be 6 cents more per tier; customers previously labeled Outside District have been reclassified as Inside District customers.

# Water and Wastewater Rate Study

Sunnyslope County Water District

Table 2-6: Fire Service Charges

Fire Meters Meter Size	Effective Date					
	12/2013	12/2014	12/2015	12/2016	12/2017	12/2018
5/8"	\$3.91	\$4.36	\$4.87	\$5.43	\$6.05	\$6.23
3/4"	\$4.32	\$4.81	\$5.36	\$5.98	\$6.67	\$6.87
1"	\$5.49	\$6.12	\$6.82	\$7.60	\$8.48	\$8.73
1 1/2"	\$7.06	\$7.87	\$8.77	\$9.78	\$10.91	\$11.24
2"	\$11.36	\$12.67	\$14.13	\$15.75	\$17.56	\$18.09
3"	\$43.09	\$48.05	\$53.58	\$59.74	\$66.61	\$68.61
4"	\$54.86	\$61.17	\$68.20	\$76.04	\$84.79	\$87.33
6"	\$82.28	\$91.74	\$102.29	\$114.05	\$127.17	\$130.98
8"	\$113.63	\$126.70	\$141.27	\$157.51	\$175.63	\$180.90

## 3 Water Connection Fees

Connection Fees are a financial mechanism used to ensure that new customers pay their fair share of capital costs necessary to provide service. In the State of California, it is required that Connection Fees comply with the Mitigation Act (AB1600, Government Code 66000 et seq.), which states that there need be a nexus between the connection and costs, and that fees should be proportionate to the cost of providing service.

In developing Connection Fees for water and wastewater, there are several different approaches that can be used. For the Water System, RFC recommends a “hybrid” combination of the system buy-in method and the incremental cost approach to determine the Connection Fees, since there is already a large amount of assets in the system and there are significant planned capital projects associated with growth and new development.

For the system buy-in approach, we have used the replacement cost less depreciation (RCLD) method to determine the value of the Water Systems. This method considers the costs necessary to replace existing facilities but also recognizes that the capacity available in existing facilities is not new and is therefore adjusted for depreciation.

The District provided a listing of assets and capital projects through FY 2012. We calculated the replacement cost (RC) of the system for FY 2012 (as of 6/30/2012) by inflating historical costs using the annual average Handy Whitman Index (Handy Whitman). To recognize that the system is not new, we subtracted the accumulated depreciation of those assets from the replacement cost to determine the value of the system known as replacement cost less depreciation (RCLD). The RCLD of the system in FY 2012 is \$20.8 million. When new users join the system, they will benefit from the District’s cash reserves. It is therefore necessary to add cash reserves (approximately \$2.5 million) to determine the

# Water and Wastewater Rate Study

Sunnyslope County Water District

net assets value of the water system. Finally, the new users will pay the ongoing debt after joining the system and therefore the value of the system is reduced by the amount of the debt principal (\$4,300,000). Table 3-1 below displays the total calculated system value.

**Table 3-1: System Buy-In System Value**

System Value	
RCLD:	\$22,692,222
(+) Add Reserves:	\$2,478,342
(-) Subtract Debt Principal:	\$4,300,000
<b>Total Asset Value:</b>	<b>\$20,870,564</b>

## Current number of Equivalent Dwelling Units in the District

The second step in calculating the connection fees using the system buy-in method is to determine the current capacity of the Water Systems. Dividing the value of the system by the capacity provides a unit cost for the capacity fee. The number of existing customers is expressed as equivalent meters. For Water Systems, capacity is usually expressed in meter equivalents rather than actual service connections. The benefit of using meter equivalents is that it relates the relative capacity of service connections for various meters to their respective sizes. For instance, a 1 1/2" meter is 2.0 equivalent 5/8" meters. The approach used in this study is expressing the number of existing customers in equivalent meters. Table 3-2 displays this figure.

**Table 3-2: Number of Equivalent Meters**

Meter Size	# of Accounts	AWWA Meter Ratio	# of EDUS (AWWA Ratios)
5/8"	4,966	1.00	4,966
3/4"	3	1.00	3
1"	318	1.00	318
1 1/2"	16	2.00	32
2"	37	3.20	119
3"	8	7.00	56
4"	4	12.60	51
6"	3	26.00	79
8"	2	48.00	97
<b>Total Number of EDU's</b>			<b>5,721</b>



The total number of EDU’s in the system is 5,721. In order to obtain the dollar value per EDU, we obtained the total asset value calculated in Figure 3-1 (\$20,870,564) and divided by the total number of EDU’s in the system (5,721) to arrive at a value of \$3,648 per EDU. As mentioned earlier, a hybrid approach of the system buy-in methodology and the incremental cost methodology was utilized to create the connection fees.

### Incremental Cost Value

The District also provided a listing of capital projects and the percentage of the project that is attributed to extending existing capacity. This listing can be found in Table 3-3.

**Table 3-3: Growth Related Capital Projects**

CIP Inputs	% Attributed to growth	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
<b>Sunnyslope Water Capital Projects</b>													
Repaint & Seismic Retrofit Ridgemark Tanks (100% Share)	0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Fairview 3.5 MG Tank Additional Construction (100% Share)	0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Best Road 24" Pipeline& Tanks (100% Share)	100%	\$0	\$0	\$0	\$0	\$0	\$0	\$772,500	\$772,500	\$0	\$0	\$6,384,000	\$0
Reconstruct Airline Water Booster (100% Share)	40%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$100,000	\$0	\$0	\$0
SCADA (Water) (100% of 5 PRVs & 50% of 5 Interties)	40%	\$56,000	\$0	\$32,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Well #7 Backup Generator (100% Share)	0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
West Hills X-Town Pipeline & Booster (Sunnyslope Portion) (2022)	100%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$100,000	\$251,815	\$4,513,389	\$0	\$0
Distribution System Water Meter Replacement	0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
General Funds Projects (Water Portion)	0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total Capital Projects Attributed to growth</b>		<b>\$56,000</b>	<b>\$0</b>	<b>\$32,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$772,500</b>	<b>\$872,500</b>	<b>\$351,815</b>	<b>\$4,513,389</b>	<b>\$6,384,000</b>	<b>\$12,982,204</b>

The total value of the capital projects that is attributed to growth is \$12,982,204. The District estimates that these capital projects will be able to provide for an additional 2,233 equivalent dwelling units (EDU’s). Thus, the additional cost per EDU is \$12,982,204 divided by 2,233 = \$5,814. Because the approach we used is a hybrid of the Incremental Cost approach and the Equity Buy-In approach, we add the cost per EDU of the Equity Buy-In Approach (\$3,648) and the cost per EDU of the Incremental Cost Approach (\$5,814) to arrive at the cost per new connection \$9,462.

## Proposed Connection Fees

The proposed connection fees for all meter sizes are shown on Table 3-4 below.

**Table 3-4: Proposed Connection Fees**

Meter Size	Current Fees	Proposed Fees	% Change	\$ Difference
5/8 inch	\$5,461	\$9,462	73%	\$4,001
3/4 inch	\$5,461	\$9,462	73%	\$4,001
1 inch	\$7,645	\$9,462	24%	\$1,817
1 1/2 inch	\$9,830	\$18,923	93%	\$9,093
2 inch	\$15,837	\$30,278	91%	\$14,441
3 inch	\$60,071	\$66,232	10%	\$6,161
4 inch	\$76,454	\$119,218	56%	\$42,764
6 inch	\$114,681	\$246,005	115%	\$131,324
8 inch	\$158,369	\$454,163	187%	\$295,794

## 4 Wastewater System

### 4.1 Wastewater Assumptions

The study period for the Wastewater Rate Study is from Fiscal Year (FY) 2013 to 2019. Various types of assumptions and inputs were incorporated into the Study. These assumptions were based on discussion with and/or direction from District staff (Staff) including projected accounts and annual growth rates in accounts, assumptions regarding proposed new debt issuances, and other miscellaneous assumptions. These assumptions are presented in Tables 1-1 and 1-2.

## 4.2 Wastewater Inflation Factors

Table 4-1: Inflation Factor Assumptions

KEY FACTORS	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
<b>Salary</b>	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
<b>Benefits</b>	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
<b>General</b>	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
<b>Utility</b>	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
<b>Insurance</b>	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
<b>Capital</b>	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
<b>Interest</b>	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%

These inflationary assumptions are the same as for the Water System.

## 4.3 Wastewater Growths and Demand Factors

Table 4-2: Account Growth Rate Assumption

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
<b>GROWTH RATE</b>							
Account Growth	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

## 4.4 Wastewater Financial Plan

The District owns and operates a wastewater system serving approximately 1,200 customers. The District contracted Raftelis Financial Consultants in 2012 to conduct a comprehensive Wastewater Rate Study.

In FY 2013, revenues generated from rates and other miscellaneous revenues are sufficient to recover the total operating expenses of the Wastewater Enterprise. However, beginning in FY 2015, the District will need to pay off a large State Revolving Fund (SRF) loan. The District borrowed approximately \$11.7 million dollars to pay for necessary capital improvement projects; the payments for this loan do not begin until the capital projects are completed, which is estimated to be sometime around FY 2015. The information regarding the loans and project completion time were provided by the District. Table 4-3 on the following page displays the projected revenues and expenses for FY 2013 – 2019 (the study period).

# Water and Wastewater Rate Study

Sunnyslope County Water District

**Table 4-3: Wastewater Revenues and Expenses**

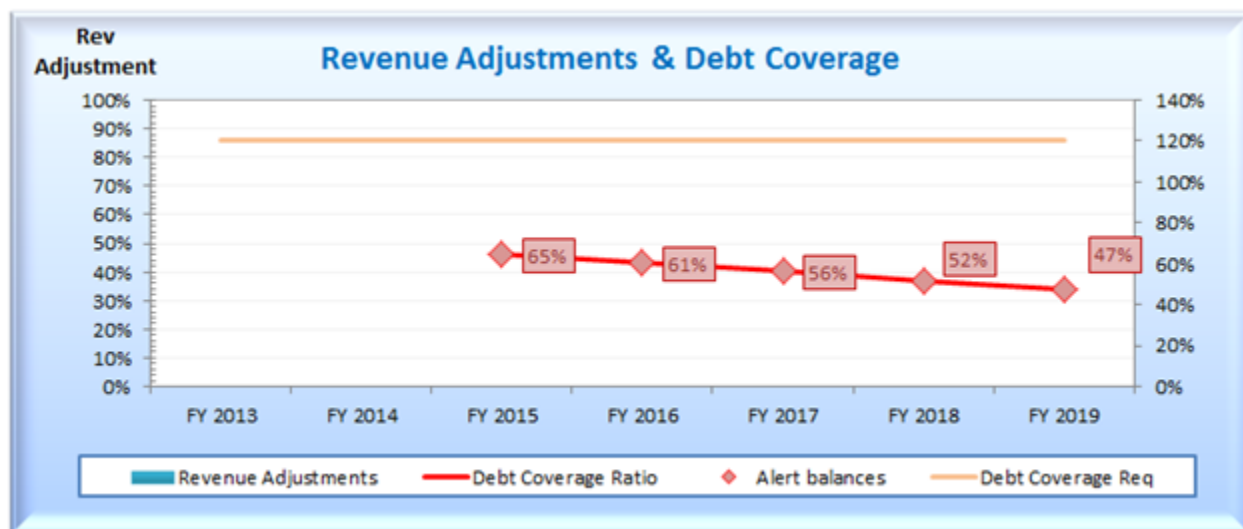
	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
<b>Revenues</b>							
Revenues from Rates	\$1,450,633	\$1,450,633	\$1,450,633	\$1,450,633	\$1,450,633	\$1,450,633	\$1,450,633
Proposed Rev Adjustments	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Revenues	\$72,700	\$74,463	\$76,276	\$78,139	\$80,055	\$82,025	\$84,051
<b>Total Revenues:</b>	<b>\$1,523,333</b>	<b>\$1,525,096</b>	<b>\$1,526,908</b>	<b>\$1,528,772</b>	<b>\$1,530,688</b>	<b>\$1,532,658</b>	<b>\$1,534,684</b>
<b>Expenditures</b>							
Sunnyslope O&M Expenditures	\$972,455	\$1,003,452	\$1,035,459	\$1,068,510	\$1,102,641	\$1,137,889	\$1,174,290
Non SRF Debt	\$0	\$0	\$0	\$0	\$0	\$0	\$0
SRF Debt	\$0	\$0	\$760,530	\$760,530	\$760,530	\$760,530	\$760,530
<b>Total Expenditure:</b>	<b>\$972,455</b>	<b>\$1,003,452</b>	<b>\$1,795,988</b>	<b>\$1,829,040</b>	<b>\$1,863,171</b>	<b>\$1,898,418</b>	<b>\$1,934,819</b>

Total Revenues throughout the study period is projected to be about \$1.4 million and total O&M expenditures about \$1.0 million. However, in FY 2015 the District will need to repay its SRF loan, which has a payment of \$760 thousand dollars per year. This debt payment represents is more than 50% of the District’s current revenue and more than 75% of its current O&M expenses. In order to meet this debt obligation, the District will need to raise rates.

### 4.4.1 Status Quo Financial Plan

As a result of the impending SRF loan payment, the District is unable to maintain fiscal sustainability and solvency under the current water rates (Status Quo). The District’s O&M expenditures are growing at less than 3 percent per year, but with the large loan payment beginning in FY 2015, the District’s current revenues will be unable to cover its expenditures. Figures 4-1, 4-2, 4-3, 4-4 are a graphical representation of the District under Status Quo water rates.

**Figure 4-3: Status Quo Revenue Adjustments & Debt Coverage**



# Water and Wastewater Rate Study

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Figure 4-1 displays the revenue adjustments and debt coverage ratio under the Status Quo scenario. There are no revenue adjustments as Status Quo assumes current, unadjusted rates. The District is required to maintain a debt coverage ratio of 120 percent according to the SRF loan agreement. In FY 2015, when the debt payments begin, the District will be unable to meet its debt coverage requirement.

Figure 4-2: Status Quo Operating Financial Plan

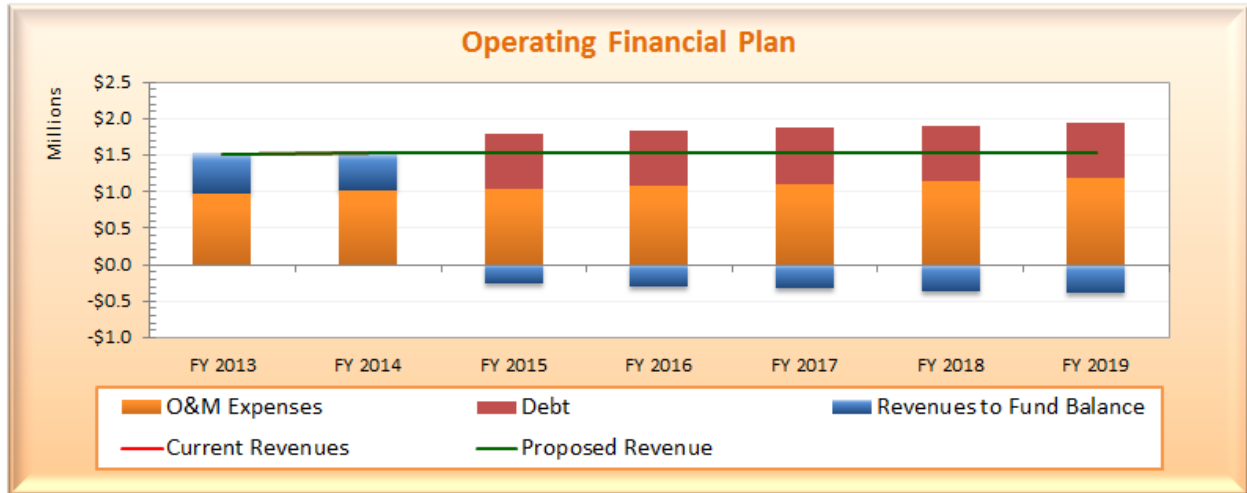
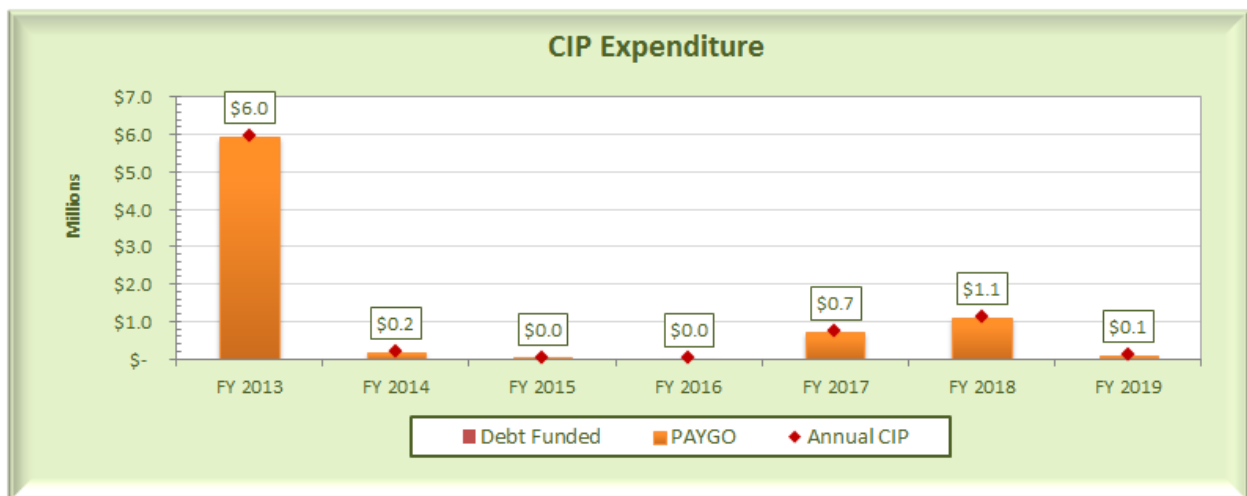


Figure 4-2 displays the operating financial plan. The colored stacked bars represent the District’s operating and non-operating expenses. The Red line represents revenues at current rates, while the green line represents revenues at proposed rates. Since this charts display the Status Quo, proposed and current revenues are equal as there are no proposed revenue adjustments under the Status Quo scenario. The blue bar displays the revenues to fund balance and shows that the District will be at a deficit beginning FY 2015 and remain at a deficit throughout the study period.

Figure 4-3: Status Quo CIP Expenditures



# Water and Wastewater Rate Study

Sunnyslope County Water District

Figure 4-3 displays the CIP schedule through the study period. The orange bars display the amount of CIP the District will expend per year that is cash funded. The Red bars display the amount of CIP that will be debt funded. The District does not plan on issuing any debt to finance future Capital Projects.

Figure 4-4: Status Quo Wastewater Fund Balance

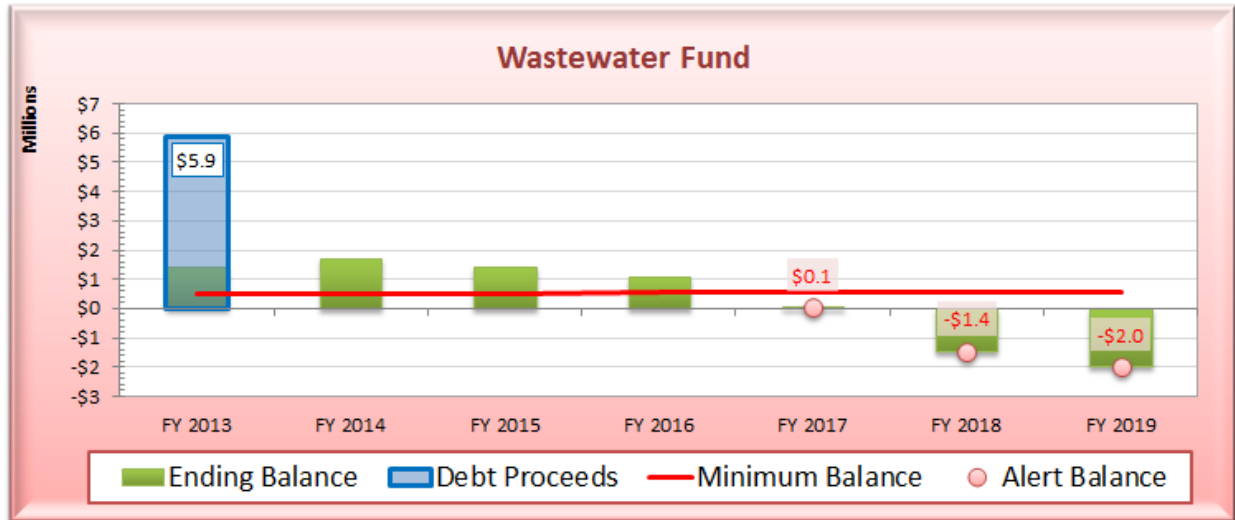


Figure 4-4 displays the Wastewater Fund balance. This figure shows the amount of cash that the District has available for the Wastewater Enterprise. The transparent blue bars indicate the amount of cash the District will receive from issuing debt. The District received approximately \$5.9 million in FY 2013 from the SRF loan's proceeds. The Green bars display the projected amount of cash available each fiscal year. The Red line indicates the minimum balance the District should have in its Wastewater Fund; this amount is set by the District and is based on the District's fiscal policy, 50 percent of total expenses. The red dot is an alert balance, when the projected balance falls under the minimum balance the alert balance displays the amount of cash in the Wastewater Fund. As displayed, under Status Quo, the Wastewater Fund will fall below the minimum balance in 2017 and will continue to fall in the following years. At the end of the study period, in FY 2019, the fund is projected to be at negative \$2.0 million under Status Quo water rates.

# Water and Wastewater Rate Study

Sunnyslope County Water District

**Table 4-4: Status Quo Wastewater Pro Forma**

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
<b>Revenues</b>							
Revenues from Rates	\$1,450,633	\$1,450,633	\$1,450,633	\$1,450,633	\$1,450,633	\$1,450,633	\$1,450,633
Proposed Rev Adjustments	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Revenues	\$72,700	\$74,463	\$76,276	\$78,139	\$80,055	\$82,025	\$84,051
<b>Total Revenues:</b>	<b>\$1,523,333</b>	<b>\$1,525,096</b>	<b>\$1,526,908</b>	<b>\$1,528,772</b>	<b>\$1,530,688</b>	<b>\$1,532,658</b>	<b>\$1,534,684</b>
<b>Expenditures</b>							
Sunnyslope O&M Expenditures	\$972,455	\$1,003,452	\$1,035,459	\$1,068,510	\$1,102,641	\$1,137,889	\$1,174,290
Non SRF Debt	\$0	\$0	\$0	\$0	\$0	\$0	\$0
SRF Debt	\$0	\$0	\$760,530	\$760,530	\$760,530	\$760,530	\$760,530
<b>Total Expenditure:</b>	<b>\$972,455</b>	<b>\$1,003,452</b>	<b>\$1,795,988</b>	<b>\$1,829,040</b>	<b>\$1,863,171</b>	<b>\$1,898,418</b>	<b>\$1,934,819</b>
<b>Net Revenues</b>							
	<b>\$550,878</b>	<b>\$521,644</b>	<b>-\$269,080</b>	<b>-\$300,268</b>	<b>-\$332,483</b>	<b>-\$365,760</b>	<b>-\$400,135</b>
<b>Debt Coverage</b>	#N/A	#N/A	65%	61%	56%	52%	47%
<b>Wastewater Fund</b>							
Beginning Balance	\$921,304	\$1,404,070	\$1,732,819	\$1,420,004	\$1,108,820	\$52,429	-\$1,449,381
CIP Expenditures	-\$5,951,328	-\$197,600	-\$48,464	-\$14,710	-\$725,650	-\$1,136,050	-\$117,529
Net Revenues	\$550,878	\$521,644	-\$269,080	-\$300,268	-\$332,483	-\$365,760	-\$400,135
Debt Proceeds	\$0	\$0	\$0	\$0	\$0	\$0	\$0
SRF Loan Proceeds	\$5,879,728	\$0	\$0	\$0	\$0	\$0	\$0
Interest Income	\$3,488	\$4,705	\$4,729	\$3,793	\$1,742	\$0	\$0
Ending Balance	\$1,404,070	\$1,732,819	\$1,420,004	\$1,108,820	\$52,429	-\$1,449,381	-\$1,967,045

Figure 4-4 presents the Status Quo scenario in a tabular Pro Forma format. The Pro Forma displays all the revenues coming into the Wastewater System, all of its expenditures including debt and the balance in the Wastewater Fund.

## 4.4.2 Proposed Financial Plan

The District will not be able to financially sustain its Wastewater Enterprise with its current rates. As mentioned in the previous section, the District will be below its required debt coverage ratio in FY 2015 and will rapidly deplete the cash in its Wastewater Funds. In order to meet debt coverage requirements and ensure a healthy fund balance, RFC is recommending two 19 percent rate increases; the first increase in FY 2014 and the second in FY 2015. The District will need to be able to meet the debt coverage ratio by FY 2015, which is why two large rate increases are recommended instead of a steadier rate increase spread through more years.

# Water and Wastewater Rate Study

Sunnyslope County Water District

Table 4-5: Proposed Revenue Adjustments

Effective Date	Proposed Wastewater Revenue Adjustments
21-Dec-13	19.0 percent
21-Dec-14	19.0 percent
21-Dec-15	0.0 percent
21-Dec-16	0.0 percent
21-Dec-17	0.0 percent
21-Dec-18	0.0 percent

Table 4-5 illustrates the Revenue Adjustments recommended through the study period.

Figures 4-5, 4-6, 4-7 and 4-8 graphically display the effects of the proposed revenue adjustments on the District’s financial position.

Figure 4-5: Proposed Revenue Adjustments & Debt Coverage

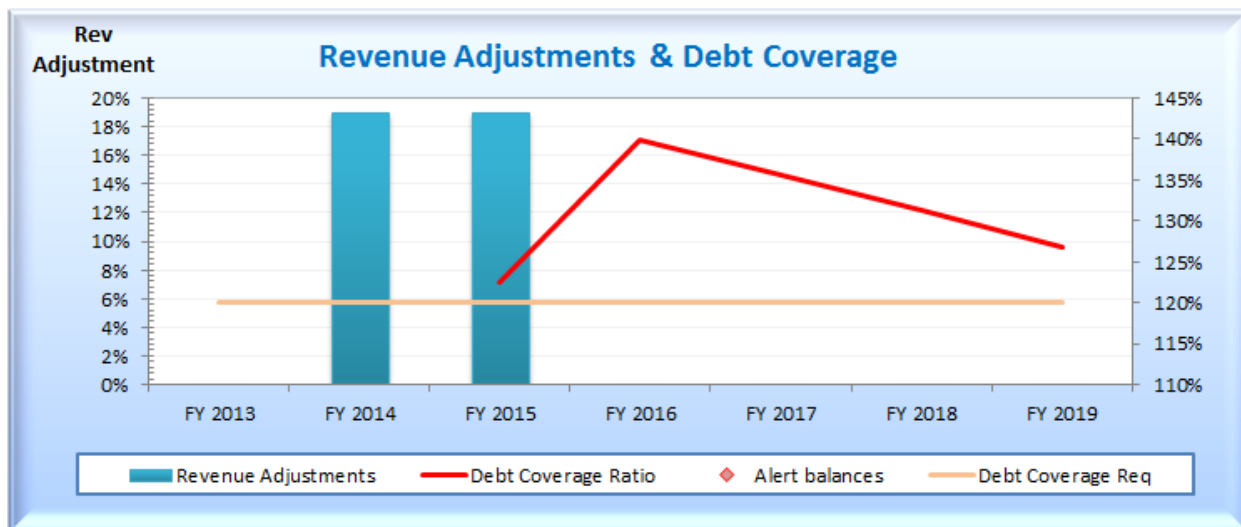


Figure 4-5 displays the revenue adjustments of the proposed financial plan. The District will increase revenues by 19.0 percent for 2 years (FY 2014 – 2015). Under these revenue adjustments, the District will satisfy its debt coverage requirements.



**Figure 4-6: Proposed Operating Financial Plan**

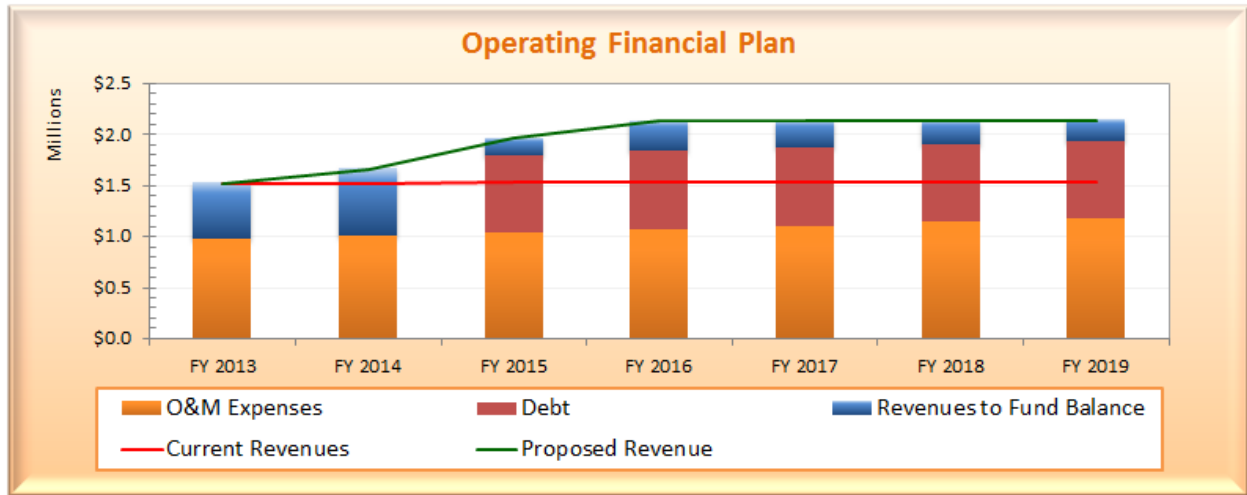
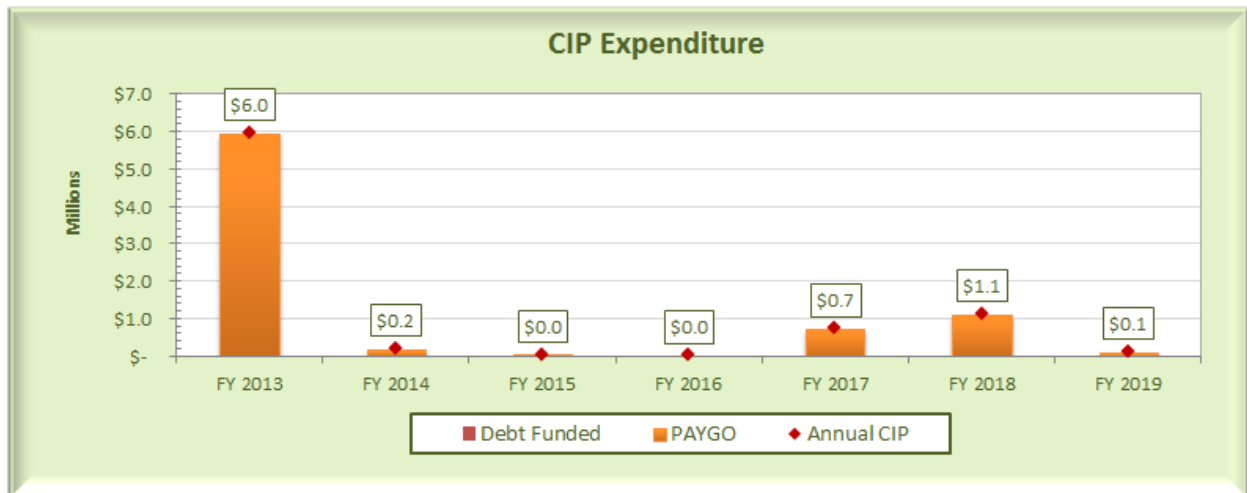


Figure 4-6 displays the proposed Operating Financial Plan. As mentioned earlier, the green line displays the proposed revenues. Under the proposed scenario, the Revenues to Fund Balance are projected to be positive in each fiscal year.

**Figure 4-7: Proposed CIP Expenditure**

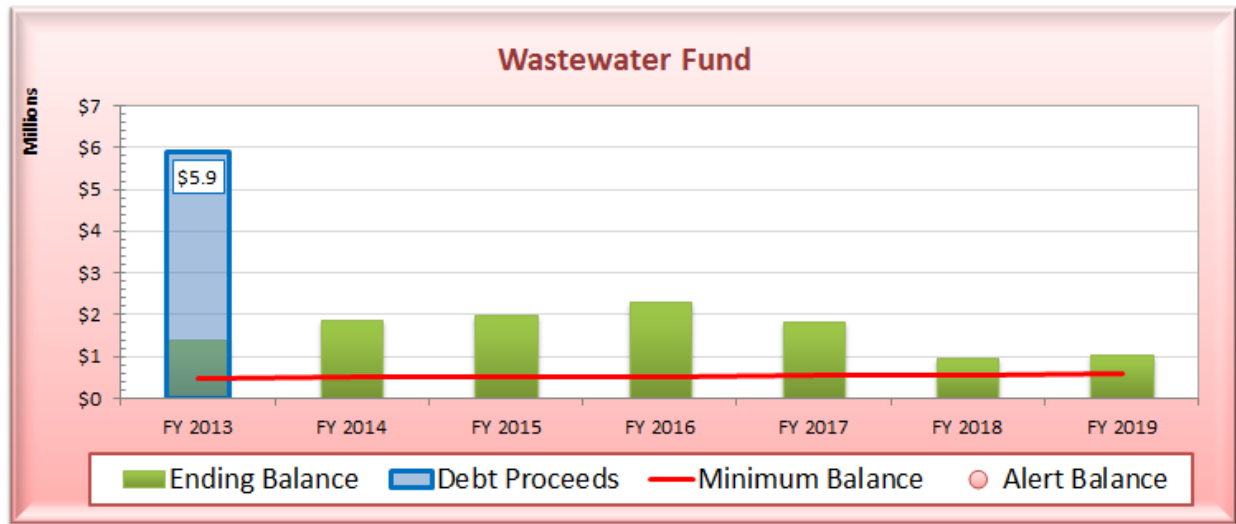


CIP Expenditures for the Proposed and Status Quo scenario are the same.

# Water and Wastewater Rate Study

Sunnyslope County Water District

Figure 4-8: Proposed Wastewater Fund



As a result of the proposed revenue increases, the Wastewater Fund is projected to remain healthy and stay above the required balance set forth by the District. Table 4-6 below displays the financial impacts of the revenue adjustments in a tabular, “Pro Forma” form.

Table 4-6: Proposed Pro Forma

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
<b>Revenues</b>							
Revenues from Rates	\$1,450,633	\$1,450,633	\$1,450,633	\$1,450,633	\$1,450,633	\$1,450,633	\$1,450,633
Proposed Rev Adjustments	\$0	\$137,810	\$439,614	\$603,608	\$603,608	\$603,608	\$603,608
Other Revenues	\$72,700	\$74,463	\$76,276	\$78,139	\$80,055	\$82,025	\$84,051
<b>Total Revenues:</b>	<b>\$1,523,333</b>	<b>\$1,662,906</b>	<b>\$1,966,523</b>	<b>\$2,132,380</b>	<b>\$2,134,296</b>	<b>\$2,136,267</b>	<b>\$2,138,292</b>
<b>Expenditures</b>							
Sunnyslope O&M Expenditures	\$972,455	\$1,003,452	\$1,035,459	\$1,068,510	\$1,102,641	\$1,137,889	\$1,174,290
Non SRF Debt	\$0	\$0	\$0	\$0	\$0	\$0	\$0
SRF Debt	\$0	\$0	\$760,530	\$760,530	\$760,530	\$760,530	\$760,530
<b>Total Expenditure:</b>	<b>\$972,455</b>	<b>\$1,003,452</b>	<b>\$1,795,989</b>	<b>\$1,829,040</b>	<b>\$1,863,171</b>	<b>\$1,898,418</b>	<b>\$1,934,819</b>
<b>Net Revenues</b>							
	<b>\$550,878</b>	<b>\$659,454</b>	<b>\$170,534</b>	<b>\$303,340</b>	<b>\$271,125</b>	<b>\$237,848</b>	<b>\$203,473</b>
<b>Debt Coverage</b>	#N/A	#N/A	122%	140%	136%	131%	127%
<b>Wastewater Fund</b>							
Beginning Balance	\$921,304	\$1,404,070	\$1,870,836	\$1,998,711	\$2,293,780	\$1,845,465	\$951,459
CIP Expenditures	-\$5,951,328	-\$197,600	-\$48,464	-\$14,710	-\$725,650	-\$1,136,050	-\$117,529
Net Revenues	\$550,878	\$659,454	\$170,534	\$303,340	\$271,125	\$237,848	\$203,473
Debt Proceeds	\$0	\$0	\$0	\$0	\$0	\$0	\$0
SRF Loan Proceeds	\$5,879,728	\$0	\$0	\$0	\$0	\$0	\$0
Interest Income	\$3,488	\$4,912	\$5,804	\$6,439	\$6,209	\$4,195	\$2,988
<b>Ending Balance</b>	<b>\$1,404,070</b>	<b>\$1,870,836</b>	<b>\$1,998,711</b>	<b>\$2,293,780</b>	<b>\$1,845,465</b>	<b>\$951,459</b>	<b>\$1,040,391</b>

# Water and Wastewater Rate Study

Sunnyslope County Water District

## 4.5 Proposed Wastewater Rates

The current Wastewater Rates for Single Family Residents consists of a monthly flat fee of \$67.25 per residence and a water usage charge of \$3.98 per HCF of usage. The usage number is based on average winter water usage taken from the months of February and March. This is representative of the indoor water usage of the SFR class. Multifamily is charged the same usage rate and a slightly lowered flat fee of \$51.16. The full listing of the District’s current rates is shown on Table 4-7 below.

**Table 4-7: Wastewater Rates**

Wastewater Rates			
<b>Single Family Dwelling</b>		\$67.25	Per Month +
		\$3.98	per HCF based on average winter water usage for Feb and March
<b>Multiple-Family Dwelling</b>		\$51.16	Per Month +
		\$3.98	per HCF based on average winter water usage for Feb and March
<b>Cottages, Motels, Trailer Parks, Laundries, etc</b>		\$6.50	per HCF of metered water use
<b>Commercial &amp; Industrial</b>		\$8.57	per HCF of metered water use

### 4.5.1 Reclassification of “Granny” Units

Currently, the District has 17 Multi-Family Residential (MFR) accounts that are classified as “Granny” Units. These Granny units are classified as a two-unit MFR account. Based on the usage characteristics and the population that lives in these units, staff has recommended that RFC reclassify these units into Single-Family Residences. Based on direction from staff, RFC has reclassified these units into SFR. The calculation is shown in Tables 4-8 and 4-9 below.

**Table 4-8: Wastewater EDU’s**

Fixed Charge Accounts	EDU	Current # of Units	Current # of EDU's
Single Family Dwelling	1.00	1,181	1,181
Multiple Family Dwelling	0.76	46	35
Cottages, Motels Trailer Parks, Laundries, etc	0.00	0	0
Commercial and Industrial	0.00	0	0
<b>Total:</b>		<b>1,227</b>	<b>1,216</b>

Fixed Charge Accounts	EDU	New # of Units	New # of EDU's	Change
Single Family Dwelling	1.00	1,198	1,198	(+) 17 SFR Units
Multiple Family Dwelling	0.76	12	9	(-) 34 MFR Units
Cottages, Motels Trailer Parks, Laundries, etc	0.00	0	0	
Commercial and Industrial	0.00	0	0	
<b>Total:</b>		<b>1,210</b>	<b>1,207</b>	

Table 4-8 displays the current equivalent dwelling unit (EDU) and new EDU calculation. The first column “EDU” displays the EDU ratio for each customer class. SFR is assigned an EDU ratio of 1.00 as it is the baseline residential class for the District. MFR has a lower EDU ratio of 0.76. Currently, the District has

# Water and Wastewater Rate Study

Sunnyslope County Water District

1,181 units classified as SFR and 46 units classified as MFR, which translates into 1,181 (1,181 \* 1) EDU's from SFR accounts and 35 (46 \* 0.76) EDU's from MFR accounts for a total of 1,216 EDU's. In order to reclassify the Granny Units and obtain the new total number of units, the 17 Granny units are taken out from the MFR classification. Since the 17 granny units are currently classified as 2 MFR units, 34 (17 \* 2) MFR units are removed from the MFR class. 17 Granny SFR units are then added to the SFR class and the new total number of EDU's drops to 1,207 from 1,216.

Table 4-9 displays the amount total amount of fixed revenue currently collected by the wastewater system.

**Table 4-9: Current & Reclassified Fixed Rate Revenues**

Fixed Charge Annual Revenues	Current Revenues
Single Family Dwelling	\$953,067
Multiple Family Dwelling	\$28,240
Cottages, Motels Trailer Parks, Laundries, etc	\$0
Commercial and Industrial	\$0
<b>Total Number of Accounts:</b>	<b>\$981,307</b>
Current Total EDU's	1,216
Proposed Total EDU's	1,207
Current per EDU Rate	\$67.25
Proposed per EDU Rate	\$67.74

The current revenues collected from fixed rates are \$981,307. In order to obtain the current wastewater rates, total fixed revenues (\$981,307) are divided by the current total number of EDU's (1,216) to arrive at the Current per-EDU rate of \$67.25. After the reclassification of Granny Units, the total fixed revenues needed to be collected remain the same (\$981,307) but the total reclassified EDU has changed to 1,207. The reclassified EDU rate increases to ( $\$981,307 / 1,207$ ) \$67.74 from \$67.25. Table 4-10 displays the Reclassified Fixed Rate revenues for each class.

**Table 4-10: Reclassified Wastewater Rates for all classes**

Fixed Charge Rates	Current Rates	New Rates
Single Family Dwelling	\$67.25	\$67.74
Multiple Family Dwelling	\$51.16	\$51.54
Cottages, Motels Trailer Parks, Laundries, etc	\$0.00	\$0.00
Commercial and Industrial	\$0.00	\$0.00

As mentioned earlier, the SFR rate increases by \$0.49 to \$67.75 and the MFR rate increases by \$0.38 to \$51.54.

# Water and Wastewater Rate Study

Sunnyslope County Water District

## 4.5.2 Proposed Rates

The District has opted to keep its current rate structure. Thus, rate increases from the proposed financial plan illustrated on Table 4-4 will be applied to the reclassified rates. Table 4-11 below displays the proposed Wastewater rates for all classes.

**Table 4-11: Proposed Wastewater Rates**

	Effective Date						
	Current	12/2013	12/2014	12/2015	12/2016	12/2017	12/2018
<b>New Rates</b>							
Single Family Dwelling	\$67.74	\$80.62	\$95.93	\$95.93	\$95.93	\$95.93	\$95.93
Multiple Family Dwelling	\$51.54	\$61.33	\$72.98	\$72.98	\$72.98	\$72.98	\$72.98
<b>Flow Charge (SFR, MFR)</b>	\$3.98	\$4.74	\$5.64	\$5.64	\$5.64	\$5.64	\$5.64
<b>Flow Charge (Trailer Parks, etc)</b>	\$6.50	\$7.74	\$9.20	\$9.20	\$9.20	\$9.20	\$9.20
<b>Flow Charge (Commercial &amp; Industrial)</b>	\$8.57	\$10.20	\$12.14	\$12.14	\$12.14	\$12.14	\$12.14

A 19 percent increase will be applied to FY 2013 rates to arrive at FY 2014 rates. Another 19 percent increase will be applied to FY 2014 rates to arrive at FY 2015 rates. There are no other planned rate increases after FY 2015.

## 5 Wastewater Connection Fees

### Current Value of the City's Systems

The purpose for connection fees and the economic/legal framework are described in the Water Connection Fees Section. Similar to the Water System, the Wastewater System has two possible approaches in calculating connection fees – the equity-buy in approach, which is used for systems that will experience little to no growth, and the incremental-cost system, which is typically utilized in systems that are still growing and have assets associated with growth.

While the Water System used a hybrid of both approaches, the system-buy in approach is the most suitable for the Wastewater System. According to growth projections provided by District staff, the Wastewater system will remain relatively the same. Table 5-1 on the following page displays the system value under the equity-buy in method.

# Water and Wastewater Rate Study

Sunnyslope County Water District

Table 5-1: Wastewater System Value

System Value	
RCLD:	\$19,636,557
(+) Add Reserves:	\$921,304
(-) Subtract Debt Principal:	\$0
<b>Total Asset Value:</b>	<b>\$20,557,861</b>

The total number of EDU's is 1,207, as shown on Table 4-8 in the previous section. To obtain the value per EDU, total asset value (\$20,557,861) is divided by total number of EDU's in the system (1,207) to arrive at a per EDU value of \$16,955. The connection fees for the Wastewater System are shown in table 5-2, below.

Table 5-2: Wastewater Connection Fees

Wastewater Capacity Charges	SFR	MFR
Current	\$16,955	\$12,716
Proposed	\$17,032	\$12,774
\$ Difference	\$77	\$58
% Difference	0.5%	0.5%