Sanitation Rate Study Final Report

City of Simi Valley

April 24, 2015

Prepared by:

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CITY OF SIMI VALLEY

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April 24, 2015

Mr. Joe Deakin, Assistant Director of Public Works
City of Simi Valley
2929 Tapo Canyon Road
Simi Valley, CA 93063

Subject: 2014 Sanitation Rate Study Report

Dear Mr. Deakin:

Raftelis Financial Consultants Inc. (RFC) is pleased to present this report on the sanitation rates and fees study (Study) to the City of Simi Valley (City) to establish sanitation rates that are equitable and in compliance with Proposition 218 and to address current financial challenges the City is facing.

The Study involved comprehensively reviewing the City's financial plan, as well as, conducting a cost of service analysis for the sanitation enterprise to determine whether rates were equitable and to recommend adjustments to restore equity where needed. RFC also reviewed the City's revenue requirements to determine the appropriate level of revenue adjustments to maintain financial sufficiency and rate stability. Based on our findings, RFC recommends that 1) the City implement the following monthly rates for single-family (SFR) customers for fiscal years (FY) 2015-16 through FY 2019-20 in order to fund operating and capital expenses and meet reserve requirements, and 2) the City apply for $12 million in a State Revolving Fund (SRF) loan, or issue debt in the same amount in FY 2018-19, to partially fund capital expenditures and maintain healthy reserves. These recommendations meet the requirements of Prop 218. For other customer classes, please see Table 5-1 for the proposed rates. Assumptions, including all increases in operating costs, capital costs, and account and use growth rates are documented in this report. Various tables describing the calculation of the rates are included.

Effective	Monthly Rate
July 1, 2015	$28.58
July 1, 2016	$31.08
July 1, 2017	$33.58
July 1, 2018	$36.08
July 1, 2019	$38.58

It was a pleasure working with you, and we appreciate the assistance you and Mr. Mike Kang provided during the course of the Study.

Sincerely,

Sanjay Gaur
Vice President

Sudhir Pardiwala
PE, Executive Vice President

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1 Executive Summary

1.1 Background

The City has two broad issues it is trying to resolve:

1. Confirm equity in all sanitation rates by customer category, and where necessary, adjust the rate to restore equity and assure that each customer's rate is directly related to the cost to serve them.
2. Develop a revenue plan that funds all identified sanitation needs, including an identified backlog of repairs and replacements to the infrastructure.

The City's Sanitation Enterprise is operating in an environment where revenues from rates are outpaced by operating and capital expenditures. This situation is not unique to the City of Simi Valley, as many agencies are faced with funding needs for infrastructure alongside service needs and increases in regulations and mandates. The City of Simi Valley's need is compounded by the fact that sanitation rates have not been adjusted since 2008.

The proposed financial plan aims to strike a balance between rate sensitivity and system repair needs through a multi-year, measured approach. The proposed revenue adjustments would fund planned capital projects for the next five years while maintaining the total sanitation funds at a relatively healthy level.

1.2 Objectives of the Study

The major objectives of the study include the following:

1. Ensure that rates are fair and equitable to each customer and are based on Proposition 218 and industry accepted cost of service principles
2. Ensure Revenue Sufficiency to meet the operation and maintenance (O&M) and capital needs of the City's sanitation enterprise
3. Plan for Rate and Revenue Stability to preclude rate spikes, provide adequate operating and capital reserves and ensure the overall financial health of the sanitation enterprise under varying conditions

This executive summary provides an overview of the study and includes findings and recommendations for sanitation rates and fees.

1.3 Proposed Revenue Adjustments

Using current rates, annual sanitation revenues are adequate for annual operating costs. However, Capital Projects to maintain the system, including repair and replacement of infrastructure, planned over the next two fiscal years, must be deferred, or they will cause the Sanitation Fund to reach a negative balance in FY 2017-18. What is more, planned capital projects increase in magnitude each year to $11.6 million in FY 2019-20 requiring revenue adjustments to maintain the existing system.

To restore the financial capacity to perform necessary infrastructure maintenance, it is recommended that the City implement revenue adjustments via a rate increase for all customer classes and issue debt in FY 2018-19.

1.4 Proposed Sanitation Rates

Table 1-1 shows proposed residential and non-residential service charges, as well as usage charges for non-residential customer classes, for implementation beginning July 2015 and each subsequent year commencing on July 1. The rate analysis began with a cost of service analysis to ensure equitable cost allocations among customer classes as required by Proposition 218 and Government Code 54999. The changes from this first phase of analysis are revenue-neutral: they do not intend to change the overall revenue; they are recommended to restore equity between the rate and actual cost to provide service, by customer class. The second phase of the analysis is the financial plan, which determines the level of revenue required to maintain the financial health of the enterprise. The Proposed Five-Year Rates take into account both of these elements.

Table 1-1: Proposed Five-Year Sanitation Rates

	Current ($/Month)	FY 2015-16 ($/Month)	FY 2016-17 ($/Month)	FY 2017-18 ($/Month)	FY 2018-19 ($/Month)	FY 2019-20 ($/Month)
Monthly Residential						
Single Family Res.	$26.08	$28.58	$31.08	$33.58	$36.08	$38.58
Multi-Family Res.	$19.56	$19.92	$21.66	$23.40	$25.14	$26.88
Senior Housing	$15.65	$15.39	$16.74	$18.09	$19.44	$20.79
Mobile Home	$15.65	$19.92	$21.66	$23.40	$25.14	$26.88
Monthly Non-Residential						
Office with LM* (SCD)	$20.86	$24.86	$27.03	$29.20	$31.37	$33.55
Office w/o LM* (SDL)	$20.86	$19.89	$21.63	$23.37	$25.11	$26.85
Commercial with LM* (SCR)	$26.08	$30.32	$32.97	$35.62	$38.27	$40.92
Commercial w/o LM* (SRL)	$26.08	$24.26	$26.38	$28.50	$30.62	$32.74
Restaurant with LM* (SRR)	$26.08	$35.78	$38.91	$42.04	$45.16	$48.29
Commercial w/o LM* (RRL)	$26.08	$28.63	$31.13	$33.63	$36.13	$38.64
Café with LM* (SRD)	$26.08	$35.78	$38.91	$42.04	$45.16	$48.29
Café w/o LM* (RDL)	$26.08	$28.63	$31.13	$33.63	$36.13	$38.64

(Table 1-1 cont.)	Current ($/hcf)	FY 2015-16 ($/hcf)	FY 2016-17 ($/hcf)	FY 2017-18 ($/hcf)	FY 2018-19 ($/hcf)	FY 2019-20 ($/hcf)
Non-Residential Usage						
Office with LM* (SCD)	$1.90	$3.56	$3.88	$4.20	$4.52	$4.84
Office w/o LM* (SDL)	$1.52	$2.85	$3.10	$3.35	$3.60	$3.85
Commercial with LM* (SCR)	$2.37	$4.34	$4.72	$5.10	$5.48	$5.86
Commercial w/o LM* (SRL)	$1.90	$3.47	$3.78	$4.09	$4.40	$4.71
Restaurant with LM* (SRR)	$5.22	$5.12	$5.57	$6.02	$6.47	$6.92
Restaurant w/o LM* (RRL)	$4.18	$4.09	$4.45	$4.81	$5.17	$5.53
Café with LM* (SRD)	$3.79	$5.12	$5.57	$6.02	$6.47	$6.92
Café w/o LM* (RDL)	$3.03	$4.09	$4.45	$4.81	$5.17	$5.53
High Schools **	$1.12	$0.95	$1.03	$1.12	$1.20	$1.28
Other Schools **	$0.37	$0.63	$0.68	$0.74	$0.79	$0.85
Pump Truck **	$14.35	$22.28	$24.23	$26.18	$28.13	$30.08
Wood Ranch/Big Sky Lift Station Fee**	$71.88	$79.68	$86.63	$93.58	$100.52	$107.47
Duplex Unit Lift Station Fee**	$53.44	$55.53	$60.37	$65.21	$70.05	$74.90
Wood Ranch Golf Restroom Lift Station Fee**	$143.80	$163.51	$177.77	$192.03	$206.27	$220.55

* LM stands for Landscape Meter

** For schools, unit of measure is $/student/month; for pump truck, $/750 gallons; for lift station, $/EDU/year

2 Background and Assumptions

In 2014, the City of Simi Valley engaged RFC to conduct a comprehensive sanitation rate and fees study to develop a solvent financial plan as well as design rates for the sanitation system that are equitable and in compliance with Proposition 218.

The study period for the 2014 Sanitation Rate Study is for the fiscal years (FY) 2015-16 through FY 2019-20. Various types of assumptions and inputs were incorporated into the Study. These assumptions were based on discussion with and/or direction from City Staff (Staff). Assumptions include growth rates for

customer accounts for different customer classes, inflation factors, and other miscellaneous assumptions. These assumptions are presented in Tables 2-1 and 2-2.

The City does not currently have reserve policies for its sanitation funds. Based on discussions with staff, a reserve target of 50 percent of Operations and Maintenance costs (O&M) was provided as a guideline. With residential customers billed on the property tax roll, the City only receives cash twice per year. A reserve target of 50 percent of O&M promotes fiscal sustainability and cash flow for the continued operation of the sanitation enterprise.

The operating reserve is used primarily to meet ongoing cash flow requirements. The City may consider maintaining a target operating reserve level equal to 50 percent of the enterprise's annual O&M expenses. Maintenance of this level of reserve serves the additional purpose of supporting a higher credit rating for the City's utility enterprise should the City choose to issue debt to fund sanitation system capital projects. With the revenue adjustments and debt issue proposed, total sanitation funds meet recommended targets through FY 2019-20, while funding capital projects on a cash basis.

2.1 Inflation

The inflation factors in Table 2-1 below are conservative assumptions based on industry benchmarks and trends. A general inflation rate of 3 percent is based on a historical Consumer Price Index range of 3 to 5 percent, whereas a 3 percent salary increase is based on the Social Security Administration's 10-year average national wage index. The benefits rate of 3 percent was arrived with the input of City Staff. Supplies and materials are also associated with the Consumer Price Index, and the rate is thus assumed at the same rate as general inflation. Capital costs are assumed at 3 percent based on the estimated Engineering News Records Construction Cost Indices (10-year average of approximately 4 percent).

Table 2-1: Inflation Factor Assumptions

KEY FACTORS	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
General		3.0%	3.0%	3.0%	3.0%	3.0%
Salaries		3.0%	3.0%	3.0%	3.0%	3.0%
Benefits		3.0%	3.0%	3.0%	3.0%	3.0%
Supplies & Mat.		3.0%	3.0%	3.0%	3.0%	3.0%
Capital		0.0%	3.0%	3.0%	3.0%	3.0%
Utilities		0.0%	3.0%	3.0%	3.0%	3.0%

2.2 Growth, Other Revenues, Debt, and Demand Factor

Account growth of 0.2 percent in Table 2-2 was arrived at after discussion with City Staff, which based the low growth rate on the City being substantially built out. Other revenue and interest earnings rates were assumed at 1.0 percent and 0.5 percent, respectively, and are also conservative assumptions based on

the current low-interest environment. Proposed debt terms for interest rate, term, issuance cost, and debt service reserve were based on the terms of issuance for other similar-sized sanitation agencies.

Table 2-2: Account Growth, Other Revenues, and Debt Assumptions

	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
GROWTH RATE						
All Customer Classes		0.2%	0.2%	0.2%	0.2%	0.2%
OTHER REVENUES PROJECTIONS						
Other Revenue		1.0%	1.0%	1.0%	1.0%	1.0%
Interest Earnings		0.5%	0.5%	0.5%	0.5%	0.5%
PROPOSED DEBT TERMS						
Interest Rates		4.5%	4.5%	4.5%	4.5%	4.5%
Term (years)		30	30	30	30	30
Issuance Cost		2.0%	2.0%	2.0%	2.0%	2.0%
Debt Service Reserve		6.0%	6.0%	6.0%	6.0%	6.0%

3 Financial Plan

3.1 Sanitation System Background

The City's Water Quality Control Plant was constructed in the early 1960s and provides sanitation collection, treatment, and disposal services to the residents and businesses of the City. The sanitation plant is designed for 12.5 million gallons per day (mgd), and operates at an average of 8.5 million gallons per day (mgd). The sanitation treatment plant currently serves a population of approximately 126,000. The City operates a sanitation collection system comprised of approximately 362 linear miles of gravity sanitation pipelines.

Currently, residential customers are charged a flat monthly service fee on the property tax bill. Non-residential customers pay a flat monthly service fee plus an additional rate per hundred cubic feet (hcf) per month of flow. Table 3-1 displays the City's current sanitation rates.

Table 3-1: Current Sanitation Rates (as of 7/1/14)

Residential Customer Classes	Base	Usage
Single Family Residential (SFR)	$26.08	
Multi-Family Residential (MFR)	$19.56	
Senior Housing	$15.65	
Mobile Home	$15.65	
Non-Residential Customer Classes		
Office with LM* (SCD)	$20.86	$1.90
Office w/o LM* (SDL)	$20.86	$1.52
Commercial with LM * (SCR)	$26.08	$2.37
Commercial w/o LM* (SRL)	$26.08	$1.90
Restaurant with LM * (SRR)	$26.08	$5.22
Restaurant w/o LM* (RRL)	$26.08	$4.18
Café with LM * (SRD)	$26.08	$3.79
Café w/o LM* (RDL)	$26.08	$3.03
High Schools **	$0.00	$1.12
Other Schools **	$0.00	$0.37
Pump Truck **	$0.00	$14.35
Wood Ranch/Big Sky Lift Station Fee**	$71.88	
Duplex Unit Lift Station Fee**	$53.44	
Wood Ranch Golf Restroom Lift Station Fee**	$143.80	

* LM stands for Landscape Meter

** For schools, unit of measure is $/student/month; for pump truck, $/750 gallons; for lift station, $/EDU/year

Table 3-2 provides a summary of sanitation system accounts for FY 2014-15.

Table 3-2: Sanitation Accounts Summary

Accounts Summary	FY 2014-15
Single Family Residential (SFR)	32,428
Multi-Family Residential (MFR)	7,927
Senior Housing	1,235
Mobile Home	614
Office with LM* (SCD)	440
Office w/o LM* (SDL)	78
Commercial with LM * (SCR)	184
Commercial w/o LM* (SRL)	12
Restaurant with LM * (SRR)	37
Restaurant w/o LM* (RRL)	8
Café with LM * (SRD)	60
Café w/o LM* (RDL)	28
Industrial	0
High Schools (ADA)*	5,278
Other Schools (ADA)*	12,743

The wastewater (WW) revenues are derived from current rates, accounts, and growth projections and are shown in Table 3-3.

Table 3-3: Sanitation Enterprise Revenues

	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Rates Revenue	$13,961,191	$13,982,132	$14,003,106	$14,024,110	$14,045,147	$14,066,214
Interest Revenue	$275,000	$74,609	$51,166	$27,328	$18,729	$7,781
Fee Income	$123,000	$124,230	$125,472	$126,727	$127,994	$129,274
Other Income	$238,500	$240,885	$243,294	$245,727	$248,184	$250,666
TOTAL	**$14,597,691**	**$14,421,857**	**$14,423,038**	**$14,423,892**	**$14,440,053**	**$14,453,936**

3.2 Revenue Requirements

A review of a utility's revenue requirements is a key step in the rate design process. The review involves an analysis of annual operating revenues under the current rates, operation and maintenance (O&M) expenses, capital expenditures, transfers between funds, and reserve requirements. This section of the

report provides a discussion on projected revenues, O&M and capital expenditures, the capital improvement financing plan, debt service requirements, and revenue adjustments required to ensure the fiscal sustainability and solvency of the Sanitation Enterprise.

3.2.1 O&M Expenses

O&M expenses include the cost of operating and maintaining sanitation collection, treatment, and disposal facilities, as well as the costs of providing technical services such as laboratory services and other administrative costs of the sanitation system (e.g. customer service and billing). The City's FY 2014-15 budget values and the assumed inflation factors for the study period were used as the basis for projecting O&M costs. Table 3-4 summarizes budgeted and projected O&M expenses for the sanitation fund. The WW O&M expenses are projected to increase at 3% per year in FY 2015-16 through FY 2019-20.

Table 3-4: Projected Sanitation O&M Expenses

	FY 2014-15 Budgeted	FY 2015-16 Projected	FY 2016-17 Projected	FY 2017-18 Projected	FY 2018-19 Projected	FY 2019-20 Projected
Personnel	$6,861,500	$7,067,345	$7,279,365	$7,497,746	$7,722,679	$7,954,359
Supplies & Materials	$1,633,500	$1,655,766	$1,705,439	$1,756,602	$1,809,300	$1,863,579
Services	$1,798,100	$1,852,043	$1,907,604	$1,964,832	$2,023,777	$2,084,491
Capital Outlay	$34,000	$35,020	$36,071	$37,153	$38,267	$39,415
TOTAL	**$10,327,100**	**$10,610,174**	**$10,928,479**	**$11,256,334**	**$11,594,024**	**$11,941,844**

3.2.2 Capital Improvement Plan

The City has developed a ten-year capital improvement plan (CIP) through FY 2024-25 to address future sanitation enterprise needs. The total estimated Sanitation Enterprise CIP for the five year Study period is $42.8 million, as shown in Figure 3-1. These projected costs include a three percent annual inflation factor due to anticipated increases in construction costs over time. This inflation rate is a conservative estimate and ensures that the City has adequate resources reserved to complete the necessary projects.

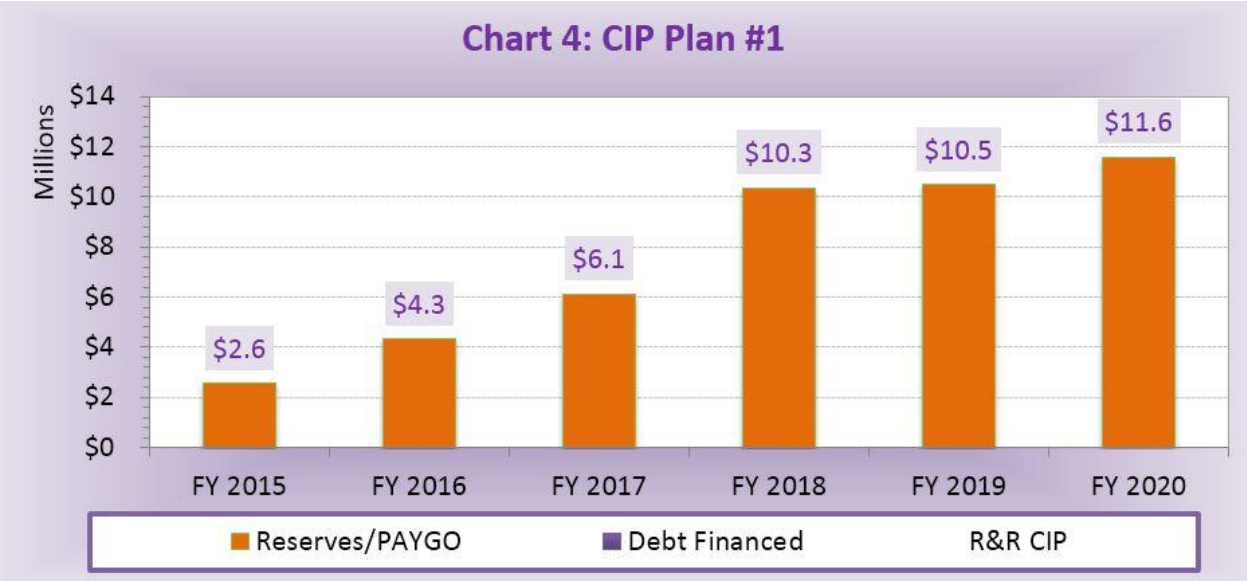

Figure 3-1: Projected 5-year Sanitation Enterprise Capital Expenditures

3.3 Status Quo Financial Plan

Table 3-5 displays the pro forma of the City's Sanitation Funds under current rates over the forecast period. All projections shown in the table are based upon the current rate structure and do not include any rate adjustments or proceeds from additional debt issuances.

Under the 'status-quo' scenario, revenues generated from rates and other miscellaneous revenues are adequate to sufficiently recover total operating expenses of the enterprise through the Study period. However, the demands placed on the aggregated funds from projected CIP requirements cause rapid annual drawdown of the total fund balance. By FY 2017-18, total fund balance not only does not meet the reserve target of 50 percent of O&M, but runs negative. Ending balances for years that the reserve target is not met are highlighted below in red. With the anticipated capital projects, revenues are inadequate for meeting the revenue requirements of the sanitation system in FY 2017-18.

Note that there is no existing debt related to the sanitation system and fund balances are anticipated to be negative in FY 2018 onward due to capital expenditures.

Table 3-5: Status-Quo Financial Plan Pro-Forma

	FY 2015 *Budgeted*	FY 2016 *Projected*	FY 2017 *Projected*	FY 2018 *Projected*	FY 2019 *Projected*	FY 2020 *Projected*
REVENUES						
Revenue under Existing Rates	$13,961,191	$13,982,132	$14,003,106	$14,024,110	$14,045,147	$14,066,214
Revenue Adjustments	$0	$0	$0	$0	$0	$0
Interest Revenue	$275,000	$74,609	$51,166	$27,328	$18,729	$7,781
Fee Income (from services)	$123,000	$124,230	$125,472	$126,727	$127,994	$129,274
Other Income	$238,500	$240,885	$243,294	$245,727	$248,184	$250,666
TOTAL REVENUES	**$14,597,691**	**$14,421,857**	**$14,423,038**	**$14,423,892**	**$14,440,053**	**$14,453,936**
O&M EXPENSE						
Personnel	$6,861,500	$7,067,345	$7,279,365	$7,497,746	$7,722,679	$7,954,359
Supplies & Materials	$1,633,500	$1,655,766	$1,705,439	$1,756,602	$1,809,300	$1,863,579
Services	$1,798,100	$1,852,043	$1,907,604	$1,964,832	$2,023,777	$2,084,491
Capital Outlay	$34,000	$35,020	$36,071	$37,153	$38,267	$39,415
TOTAL O&M EXPENSE	**$10,327,100**	**$10,610,174**	**$10,928,479**	**$11,256,334**	**$11,594,024**	**$11,941,844**
NET REVENUES	**$4,270,591**	**$3,811,683**	**$3,494,559**	**$3,167,559**	**$2,846,030**	**$2,512,091**
PROPOSED DEBT PROCEEDS	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
DEBT SERVICE						
Existing Debt Service	$0	$0	$0	$0	$0	$0
Proposed Debt Service	$0	$0	$0	$0	$0	$0
TOTAL DEBT SERVICE	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
CASH OUTFLOW						
CIP - Plant/Sewerline PAYGO	$2,555,000	$4,322,000	$6,112,020	$10,348,490	$10,480,345	$11,573,607
CIP - Debt Funded	$0	$0	$0	$0	$0	$0
CIP - Vehicles PAYGO	$30,000	$111,227	$115,754	$0	$0	$0
TOTAL CASH OUTFLOW	**$2,585,000**	**$4,433,227**	**$6,227,774**	**$10,348,490**	**$10,480,345**	**$11,573,607**
INTERFUND TRANSFERS & OTHER EXPENDITURES						
Transfers from Operations Fund to Other City Funds	$2,352,400	$2,422,972	$2,495,661	$2,570,531	$2,647,647	$2,727,076
Transfers from Replacement Fund to General Fund	$531,800	$547,754	$555,970	$561,530	$571,737	$579,972
TOTAL INTERFUND TRANSFERS & OTHER EXPENDITURES	**$2,884,200**	**$2,970,726**	**$3,051,631**	**$3,132,061**	**$3,219,384**	**$3,307,048**
NET CASH BALANCE	**($1,198,609)**	**($3,592,270)**	**($5,784,847)**	**($10,312,992)**	**($10,853,699)**	**($12,368,564)**
Beginning Balances	**$17,916,568**	**$16,717,959**	**$13,125,688**	**$7,340,841**	**($2,972,151)**	**($13,825,850)**
Debt Proceed Balances	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Ending Balances with Debt Proceeds	**$16,717,959**	**$13,125,688**	**$7,340,841**	**($2,972,151)**	**($13,825,850)**	**($26,194,413)**
Ending Balances w/o Debt Proceeds	**$16,717,959**	**$13,125,688**	**$7,340,841**	**($2,972,151)**	**($13,825,850)**	**($26,194,413)**
Target Balances	**$5,092,816**	**$5,232,415**	**$5,389,387**	**$5,551,069**	**$5,717,601**	**$5,889,129**

3.4 Recommendations and Proposed Financial Plan

3.4.1.1 Reserves Target

The City does not currently have reserve policies for its sanitation funds. Based on discussions with Staff, a reserve target of 50 percent of Operations and Maintenance was identified. A reserve target of 50 percent of Operations and Maintenance costs (O&M) promotes fiscal sustainability and the continued operation of the sanitation enterprise.

Operating Reserve – The operating reserve is used primarily to meet ongoing cash flow requirements, particularly given that residential customers are billed on the tax roll and cash is only received twice per year. The City can maintain a target operating reserve level equal

to 50 percent of the enterprise's annual O&M expenses. Maintenance of this level of reserve serves the additional purpose of supporting a higher credit rating for the City's utility enterprise should the City choose to issue debt to fund sanitation system CIP.

3.4.1.2 Proposed Revenue Adjustments

To ensure financial solvency for the sanitation enterprise, it is recommended that the City implement the following revenue adjustments each year, with the first increase scheduled for July 2015.

Table 3-6: Proposed Sanitation Revenue Adjustments

Effective Date	Single Family Residential (SFR) Bill Impact
July 2015	$2.50
July 2016	$2.50
July 2017	$2.50
July 2018	$2.50
July 2019	$2.50

Additionally, to partially fund CIP it is recommended that the City issue $12 million in debt, or State Revolving Fund (SRF) loans in FY 2018-19, to maintain healthy reserves and limit rate increases. Issuance of debt is an equitable way of balancing long term capital needs with stable rates. Future users pay a portion of debt service- through their rates – which limits the impact to current ratepayers.

3.4.1.3 Proposed Financial Plan

A pro forma of the proposed financial plan through FY 2019-20 is shown in Table 3-7. The proposed financial plan successfully meets the City's financial needs through FY 2020 in that the sanitation enterprise reaches positive net revenues while addressing the City's O&M and CIP needs. The proposed revenue adjustments enable the enterprise to complete planned capital projects while maintaining total sanitation funds at a healthy level. Sanitation fund balances meet and exceed targets through the Study period. Note reserves are being drawn down from $17.9 million in FY 2014-15 to $8.5 million in FY 2019-20 in order to partially fund CIP.

Table 3-7: Proposed Financial Plan Pro-forma

	FY 2015 *Budgeted*	FY 2016 *Projected*	FY 2017 *Projected*	FY 2018 *Projected*	FY 2019 *Projected*	FY 2020 *Projected*
REVENUES						
Revenue under Existing Rates	$13,961,191	$13,982,132	$14,003,106	$14,024,110	$14,045,147	$14,066,214
Revenue Adjustments	$0	$1,915,552	$3,306,783	$4,702,079	$6,100,699	$7,506,034
Interest Revenue	$275,000	$79,410	$69,080	$65,404	$84,070	$105,706
Fee Income (from services)	$123,000	$124,230	$125,472	$126,727	$127,994	$129,274
Other Income	$238,500	$240,885	$243,294	$245,727	$248,184	$250,666
TOTAL REVENUES	**$14,597,691**	**$16,342,210**	**$17,747,735**	**$19,164,047**	**$20,606,094**	**$22,057,894**
O&M EXPENSE						
Personnel	$6,861,500	$7,067,345	$7,279,365	$7,497,746	$7,722,679	$7,954,359
Supplies & Materials	$1,633,500	$1,655,766	$1,705,439	$1,756,602	$1,809,300	$1,863,579
Services	$1,798,100	$1,852,043	$1,907,604	$1,964,832	$2,023,777	$2,084,491
Capital Outlay	$34,000	$35,020	$36,071	$37,153	$38,267	$39,415
TOTAL O&M EXPENSE	**$10,327,100**	**$10,610,174**	**$10,928,479**	**$11,256,334**	**$11,594,024**	**$11,941,844**
NET REVENUES	**$4,270,591**	**$5,732,036**	**$6,819,255**	**$7,907,713**	**$9,012,070**	**$10,116,050**
PROPOSED DEBT PROCEEDS	**$0**	**$0**	**$0**	**$0**	**$11,760,000**	**$0**
DEBT SERVICE						
Existing Debt Service	$0	$0	$0	$0	$0	$0
Proposed Debt Service	$0	$0	$0	$0	$0	$736,699
TOTAL DEBT SERVICE	**$0**	**$0**	**$0**	**$0**	**$0**	**$736,699**
CASH OUTFLOW						
CIP - Plant/Sewerline PAYGO	$2,555,000	$4,322,000	$6,112,020	$10,348,490	$0	$10,293,952
CIP - Debt Funded	$0	$0	$0	$0	$10,480,345	$1,279,655
CIP - Vehicles PAYGO	$30,000	$111,227	$115,754	$0	$0	$0
TOTAL CASH OUTFLOW	**$2,585,000**	**$4,433,227**	**$6,227,774**	**$10,348,490**	**$10,480,345**	**$11,573,607**
INTERFUND TRANSFERS & OTHER EXPENDITURES						
Transfers from Operations Fund to Other City Funds	$2,352,400	$2,422,972	$2,495,661	$2,570,531	$2,647,647	$2,727,076
Transfers from Replacement Fund to General Fund	$531,800	$547,754	$555,970	$561,530	$571,737	$579,972
TOTAL INTERFUND TRANSFERS & OTHER EXPENDITURES	**$2,884,200**	**$2,970,726**	**$3,051,631**	**$3,132,061**	**$3,219,384**	**$3,307,048**
NET CASH BALANCE	**($1,198,609)**	**($1,671,917)**	**($2,460,151)**	**($5,572,838)**	**$7,072,341**	**($5,501,304)**
Beginning Balances	**$17,916,568**	**$16,717,959**	**$15,046,041**	**$12,585,891**	**$7,013,053**	**$14,085,395**
Debt Proceed Balances	**$0**	**$0**	**$0**	**$0**	**$1,279,655**	**$0**
Ending Balances with Debt Proceeds	**$16,717,959**	**$15,046,041**	**$12,585,891**	**$7,013,053**	**$14,085,395**	**$8,584,091**
Ending Balances w/o Debt Proceeds	**$16,717,959**	**$15,046,041**	**$12,585,891**	**$7,013,053**	**$12,805,739**	**$8,584,091**
Target Balances	**$5,092,816**	**$5,232,415**	**$5,389,387**	**$5,551,069**	**$5,717,601**	**$5,889,129**

Figures 3-2, 3-3, 3-4 and 3-5 illustrate the projected financial plan for the sanitation enterprise. Figure 3-2 displays the proposed SFR revenue adjustments through FY 2019-20 (Table 3-6 in tabular format). Figure 3-3 illustrates the operating position of the sanitation enterprise, where the expenses, inclusive of reserve funding and transfers, are shown by stacked bars; and total revenues at current rates and proposed rates are shown by red and green lines, respectively. Projected ending total fund balance for the utility – inclusive of both the operating and capital funds – is shown in Figure 3-4, where the red line indicates the target reserve balance as recommended by the reserve requirements discussed in Section 3.4.1.1. Figure 3-5 summarizes the projected CIP and its funding sources as debt (purple bars) or PAYGO (orange bars).

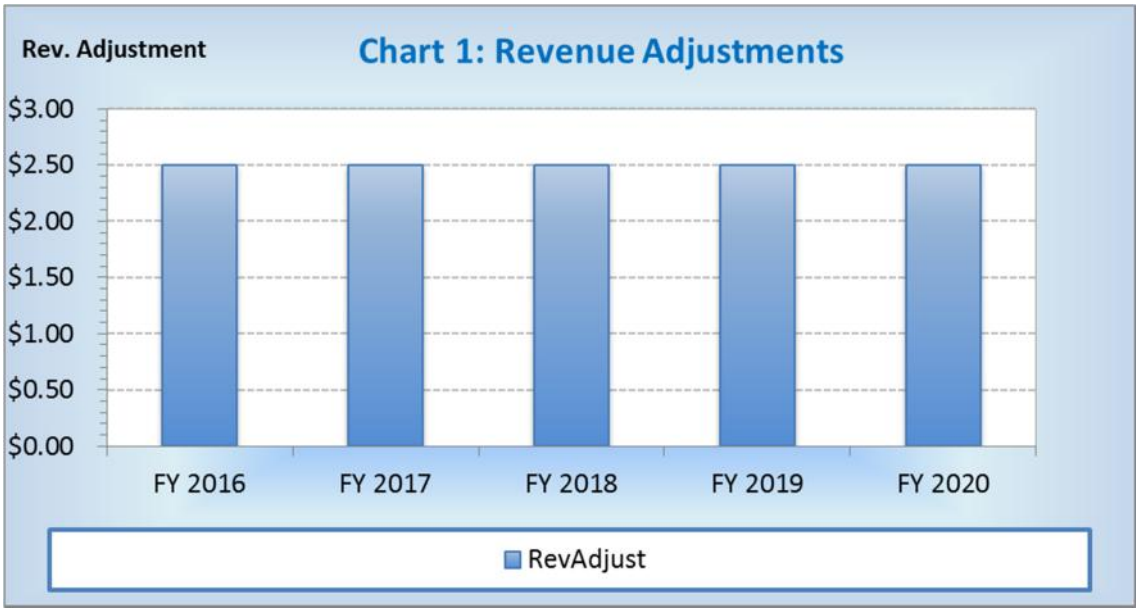

Figure 3-2: Proposed Sanitation Revenue Adjustments

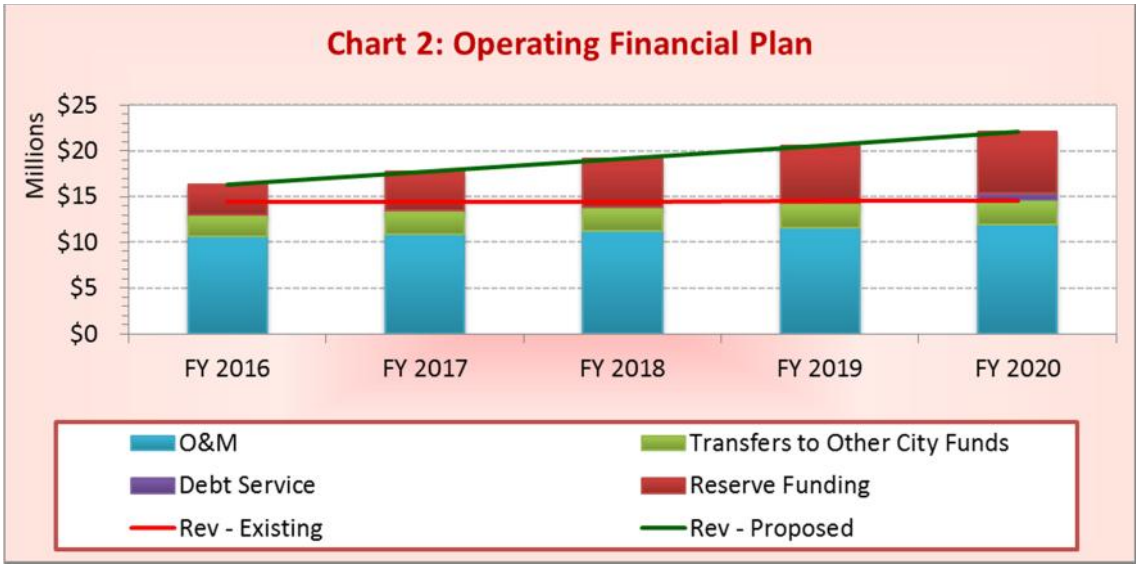

Figure 3-3: Sanitation Operating Financial Plan

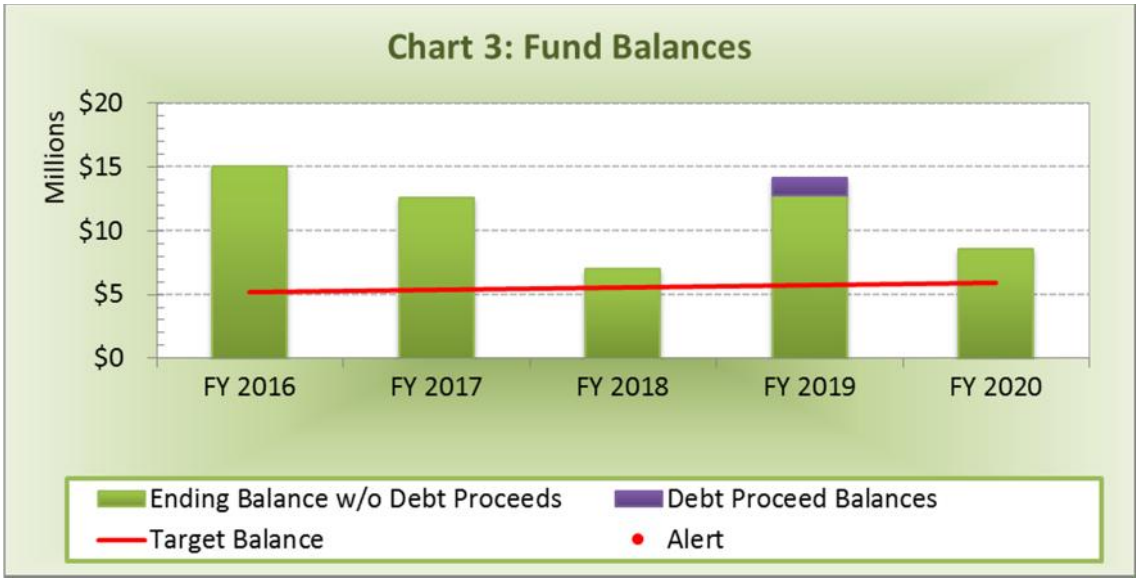

Figure 3-4: Projected Ending Balances for Total Sanitation Funds

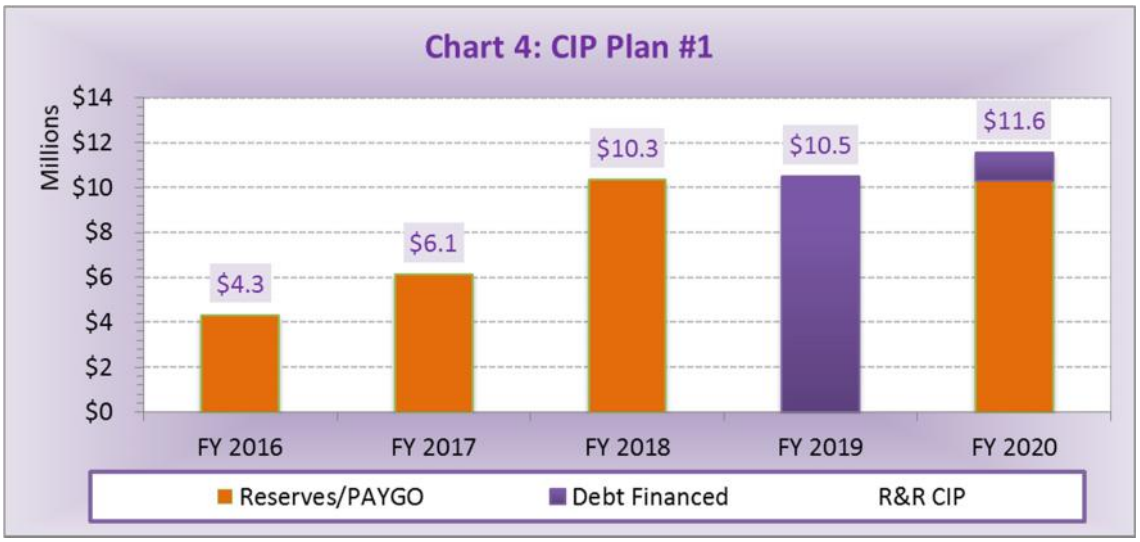

Figure 3-5: Projected CIP and Funding Sources for Sanitation Funds

4 Cost of Service Analysis

Proposition 218 requires that rates be designed to reflect the proportional cost of providing service. Government Code Section 54999 requires agencies to perform a cost of service study at least once every ten years. A cost of service analysis ensures that rates properly reflect the cost of providing service to a customer and are thus fair to all customers.

As a part of this study, RFC performed a cost of service analysis for the City's Sanitation Enterprise. The cost of service analysis was based on FY 2013-14 figures, the most recent available. The cost of service analysis for the sanitation enterprise was dependent on loading factors, as well as the revenue requirements developed through the operating and cash flow analysis. The following section describes the methodology used to allocate operating and capital costs to Wastewater Flow (Flow), Total Suspended Solids (TSS) and Biochemical Oxygen Demand (BOD) parameters, and the calculation of resulting rates, beginning with a mass balance analysis.

The net cost of providing service is determined by the total revenue requirements of the enterprise. In a cost of service analysis, the total cost of service is proportionally allocated to customer classes based on services rendered, which takes into account the flow (Flow parameter) and strength of wastewater (BOD and TSS parameters).

4.1 Mass Balance

The mass balance analysis accounts for the flows and strengths going into the treatment plant (influent), the customer classes producing the discharge with those flow and strengths characteristics (TSS and BOD), and the inflow and infiltration (I&I) going into the collections system (e.g. rainwater). Through an accounting of these three components, the mass balance estimates the flows and strengths that each customer class is responsible for discharging into the system. This is an important first step toward developing unit costs for flows and strengths.

O&M and capital expenditures are broken down by individual expenses, categorizing such expenses into functional cost categories (e.g. collection, treatment) and then allocating the functional cost categories. Percentage values are determined for each parameter for which sanitation costs are assigned.

In order to allocate costs of service to the different user classes, unit costs of service were calculated for flow and strength parameters, with the general parameter re-allocated to the other parameters. The unit costs of service are developed by dividing the total annual costs allocated to each parameter by the total annual loadings or number of accounts for the respective parameter (BOD, TSS, and customer service). Table 4-1 shows the total flow and loadings of each customer class in the system, calculated using strength factors for each customer class.

Table 4-1: Sanitation Mass Balance[1]

		(Monthly Data)		
		Flow mgd	**BOD** mg/L	**TSS** mg/L
Total Flow		8.49	297	327
I&I		0.42	50	50
Septage		0	5,400	12,000
Net Flow from Customers		8.07	310	342
Non-Residential Flow *(Strengths estimated using City of LA data)*				
SCD (Low Strength)		0.40	130	80
SDL (Low Strength)		0.14	130	80
SCR (Medium Strength)		0.27	565	340
SRL (Medium Strength)		0.03	565	340
SRR (High Strength)		0.10	1,000	600
RRL (High Strength)		0.02	1,000	600
SRD (High Strength)		0.12	1,000	600
RDL (High Strength)		0.05	1,000	600
High Schools	15 gpd/student	0.04	130	100
Other Schools	10 gpd/student	0.06	130	100
Industrial		0.00	150	150
Subtotal Non-Residential Flow (Strengths estimated using City		1.24	442	268
Net Residential Flow		**6.83**		
Revised EDU Definition		**174.83 (gpd)**	**285 (mg/L)**	**353 (mg/L)**

The previous equivalent dwelling unit (EDU) definition of 275 gpd of flow and 230 and 220 mg/L of strength for annual loadings (BOD and TSS, respectively) was established more than 20 years ago for the single-family residential customer class. During that time, and increasingly over the last ten years, increased focus on water conservation and more efficient appliances and fixtures have driven indoor water usage down significantly.

Based on the 2010 Census, current single family household size is approximately 3.16 persons within the City. At 55 gallons per capita per day (gpcd), a residential household in Simi Valley is estimated to use approximately 175 gallons per day (gpd)[2]. This figure aligns with current usage in comparable areas. The strength factors for non-residential used for the Study are taken from characteristic sewage generation factors published by the City of Los Angeles in August of 2014. Residential strengths are determined to be 285 and 353 mg/L for BOD and TSS respectively.

[1] Inflow & Infiltration (I&) is based on industry standards.
[2] For simplicity the actual gpcd was rounded up from 55.4 gpcd, and 174.83 gpd per single family dwelling unit.

4.2 Allocation of Revenue Requirements

Allocation factors used for allocating sanitation O&M and capital expenses were based on discussions with City Staff, and are listed in Tables 4-2 and 4-3, respectively.

Table 4-2: Allocation Factors for Sanitation O&M Expenses

O&M Allocation	Flow	BOD	TSS	Indirect
Personnel	80.0%	10.0%	10.0%	0.0%
Supplies & Materials	80.0%	10.0%	10.0%	0.0%
Services	80.0%	10.0%	10.0%	0.0%
Capital Outlay	78.8%	9.3%	9.3%	2.6%
Plant Equipment Replacement	60.0%	20.0%	20.0%	0.0%
Sewerline Replacement	100.0%			0.0%
Vehicle Replacement				100.0%
Transfer to Other City Funds				100.0%

Table 4-3: Allocation Factors for Sanitation Capital Expenditures

Capital Allocation	Flow	BOD	TSS	Indirect
Land	40.0%	25.0%	25.0%	10.0%
Buildings	40.0%	25.0%	25.0%	10.0%
Furnishings & Equipment				100.0%
Computers				100.0%
Vehicles				100.0%
Infrastructure - Distribution Lines	100.0%			0.0%
Infrastructure - Plant	60.0%	20.0%	20.0%	0.0%
Construction in Progress	78.8%	9.3%	9.3%	2.6%

4.3 Unit Cost of Service

Tables 4-4 and 4-5 show the total units of service and the development of the FY 2013-14 unit costs for each parameter (Flow, BOD and TSS), respectively.

Table 4-4: Net Revenue Requirements from Sanitation Rates

Revenue Requirements	Operating	Capital	Total
O&M Expenses	$10,327,100		$10,327,100
Transfers to Other Funds		$4,261,700	$4,261,700
Debt Service		$0	$0
Total Revenue Requirements	**$10,327,100**	**$4,261,700**	**$14,588,800**
Revenue from Other Sources			
Interest Revenue	$275,000		$275,000
Fee Income (from services)	$123,000		$123,000
Other Income	$238,500		$238,500
Total Revenue from Other Sources	**$636,500**	**$0**	**$636,500**
Less Adjustments			
Adjustments for Cash Balance	($8,891)		($8,891)
Adjustment for annualizing rate increase	$0		$0
Total Adjustments	**($8,891)**	**$0**	**($8,891)**
Revenue to be Collected from Rates	**$9,699,491**	**$4,261,700**	**$13,961,191**

Table 4-5: Unit Cost of Service Calculation

	Flow	BOD	TSS	Indirect	Total
Operating Cost	$6,639,452	$686,447	$686,447	$1,687,146	$9,699,491
Capital Cost	$3,356,685	$396,060	$396,060	$112,896	$4,261,700
Total Cost	**$9,996,137**	**$1,082,506**	**$1,082,506**	**$1,800,042**	**$13,961,191**
Allocation of Indirect	$1,479,586	$160,228	$160,228	($1,800,042)	
Cost of Service	**$11,475,723**	**$1,242,734**	**$1,242,734**	**$0**	**$13,961,191**
	82%	9%	9%		
Unit Cost	**$2.92**	**$0.16**	**$0.15**		

Total cost per flow or strength component for each customer class is based on combining the flows and strengths for each customer class and the unit costs of service from the calculation in Table 4-5.

These unit costs represent the cost allocable to each customer class, and they effectively redistribute the cost responsibilities amongst customer classes to equitably reflect each class' proportionate share of total costs. Thus, the COS-based rates will shift among customer classes. In the City's case, the cost of service showed that residential customers' share of total system costs should decrease. That relationship is shown in Table 4-6 which illustrates that although the current monthly rate for a single-family customer is $26.08, the true, COS-based rate should be reduced 3.6% to $25.13. Thus, the $28.58 proposed rate for FY 2015-16 is inclusive of the cost of service analysis. Table 4-6 also shows that because the same level of revenues is re-allocated according to the varying costs of serving different customer classes, the rate impacts for each class vary.

Table 4-6: Cost of Service Calculated Rates (Revenue Neutral)

Customer Class	Current Base Charge	Base Charge per COS	Current Usage Rate (hcf)	Usage Rate per COS (hcf)
Residential				
Single Family Residential (SFR)	$26.08	$25.13		
Multi-Family Residential (MFR)	$19.56	$17.51		
Senior Housing	$15.65	$13.53		
Mobile Home	$15.65	$17.51		
Non-Residential				
Office (SCD) with LM* (SCD)	$20.86	$21.86	$1.90	$3.12
Office w/o LM* (SDL)	$20.86	$17.49	$1.52	$2.50
Comm. (SCR) with LM* (SCR)	$26.08	$26.66	$2.37	$3.81
Commercial w/o LM* (SRL)	$26.08	$21.33	$1.90	$3.05
Restaurant (SRR) with LM* (SRR)	$26.08	$31.47	$5.22	$4.50
Restaurant w/o LM* (RRL)	$26.08	$25.17	$4.18	$3.60
Café with LM* (SRD)	$26.08	$31.47	$3.79	$4.50
Café w/o LM* (RDL)	$26.08	$25.17	$3.03	$3.60
High Schools**			$1.12	$0.94
Other Schools**			$0.37	$0.63
Pump Truck**			$14.35	$19.59

* LM stands for Landscape Meter

** For schools, unit of measure is $/student/month; for pump truck, $/750 gallons

Based on the above information, the EDU definition can be revised. The below formula represents the revised EDU definition, and is derived parallel to the City's prior format.

$$1\ EDU = 0.82 \times \frac{Daily\ Flow}{175} + 0.09 \times \frac{BOD}{285} + 0.09 \times \frac{TSS}{353}$$

EDU = Equivalent Dwelling Unit
Daily Flow = Wastewater flow in gallons per day (gpd)
BOD = Biochemical Oxygen Demand (mg/L)
TSS = Total Suspended Solids (mg/L)

Table 4-7: Revised EDU Strength Factor Definitions

Customer Class	Adj. Factor
Single Family Residence	1.00
Multi-Family Residence - General	0.70
Multi-Family Residence - Wood Ranch Area	0.70
Senior Citizen Housing	0.54
Mobile Home	0.70
Office with LM *	0.87
Office	0.70
Commercial with LM *	1.06
Commercial	0.85
Restaurant with LM *	1.25
Restaurant	1.00
Café with LM *	1.25
Café	1.00
Heavy Industry	-
High Schools *	0.04
Other Schools *	0.03

* LM stands for Landscape Meter

5 Rate Design

The revenue requirements and cost of service analysis described in the preceding sections of this report provide a basis for the design of sanitation rates. Rate design involves the development of rate schedules for each user class so as to recover the annual cost of service determined for each user class. This subsection of the report presents a schedule of rates for the City's user classes, and analyzes the impact of the proposed changes in user classifications, cost allocation and rate design on the user classes.

RFC proposes that the City retain its existing fixed charge for all residential and non-residential customers and its existing usage charge for non-residential customer classes. The charges are based on the unit rates calculated above and applied to the loadings in the mass balance described earlier.

5.1 Proposed Sanitation Rates

The proposed monthly service charges over five years for residential and non-residential and usage charges for non-residential customer classes are as shown in Table 5-1 below (same as Table 1-1 in the Executive Summary). Tables 5-2 and 5-3 show the FY 2015-16 impacts as compared to current charges. All rates are proposed for implementation in July 2015 with subsequent-year adjustments in July of those years. Note that the non-residential fixed charge has been amended to include 7 hcf of base use per month, equivalent to that of 1 EDU. Currently low and medium strength non-residential classes are

allotted 11 hcf per month and high strength customers are allotted 7 or 5 hcf per month based on the specific class of customer.

The cost of service analysis ensures equitable cost allocations among customer classes as required by Proposition 218 and Government Code 54999.

Table 5-1: Proposed Five-Year Sanitation Rates

	Current ($/Month)	FY 2015-16 ($/Month)	FY 2016-17 ($/Month)	FY 2017-18 ($/Month)	FY 2018-19 ($/Month)	FY 2019-20 ($/Month)
Monthly Residential						
Single Family Res.	$26.08	$28.58	$31.08	$33.58	$36.08	$38.58
Multi-Family Res.	$19.56	$19.92	$21.66	$23.40	$25.14	$26.88
Senior Housing	$15.65	$15.39	$16.74	$18.09	$19.44	$20.79
Mobile Home	$15.65	$19.92	$21.66	$23.40	$25.14	$26.88
Monthly Non-Residential						
Office with LM* (SCD)	$20.86	$24.86	$27.03	$29.20	$31.37	$33.55
Office w/o LM* (SDL)	$20.86	$19.89	$21.63	$23.37	$25.11	$26.85
Commercial with LM* (SCR)	$26.08	$30.32	$32.97	$35.62	$38.27	$40.92
Commercial w/o LM* (SRL)	$26.08	$24.26	$26.38	$28.50	$30.62	$32.74
Restaurant with LM* (SRR)	$26.08	$35.78	$38.91	$42.04	$45.16	$48.29
Restaurant w/o LM* (RRL)	$26.08	$28.63	$31.13	$33.63	$36.13	$38.64
Café with LM* (SRD)	$26.08	$35.78	$38.91	$42.04	$45.16	$48.29
Café w/o LM* (RDL)	$26.08	$28.63	$31.13	$33.63	$36.13	$38.64

* LM stands for Landscape Meter

Please see Table 5-1 continued on the following page.

(Table 5-1 cont.)	Current ($/hcf)	FY 2015-16 ($/hcf)	FY 2016-17 ($/hcf)	FY 2017-18 ($/hcf)	FY 2018-19 ($/hcf)	FY 2019-20 ($/hcf)
Non-Residential Usage						
Office with LM* (SCD)	$1.90	$3.56	$3.88	$4.20	$4.52	$4.84
Office w/o LM* (SDL)	$1.52	$2.85	$3.10	$3.35	$3.60	$3.85
Commercial with LM* (SCR)	$2.37	$4.34	$4.72	$5.10	$5.48	$5.86
Commercial w/o LM* (SRL)	$1.90	$3.47	$3.78	$4.09	$4.40	$4.71
Restaurant with LM* (SRR)	$5.22	$5.12	$5.57	$6.02	$6.47	$6.92
Restaurant w/o LM* (RRL)	$4.18	$4.09	$4.45	$4.81	$5.17	$5.53
Café with LM* (SRD)	$3.79	$5.12	$5.57	$6.02	$6.47	$6.92
Café w/o LM* (RDL)	$3.03	$4.09	$4.45	$4.81	$5.17	$5.53
High Schools **	$1.12	$0.95	$1.03	$1.12	$1.20	$1.28
Other Schools **	$0.37	$0.63	$0.68	$0.74	$0.79	$0.85
Pump Truck **	$14.35	$22.28	$24.23	$26.18	$28.13	$30.08
Wood Ranch/Big Sky Lift Station Fee**	$71.88	$79.68	$86.63	$93.58	$100.52	$107.47
Duplex Unit Lift Station Fee**	$53.44	$55.53	$60.37	$65.21	$70.05	$74.90
Wood Ranch Golf Restroom Lift Station Fee**	$143.80	$163.51	$177.77	$192.03	$206.27	$220.55

* LM stands for Landscape Meter

** For schools, unit of measure is $/student/month; for pump truck, $/750 gallons; for lift station, $/EDU/year

Table 5-2: Proposed Monthly Sanitation Charges after Revenue Adjustment in FY 2015-16

	Current $/EDU	FY 2015-16 $/EDU	$ Impact per EDU
Residential			
Single Family Residential (SFR)	$26.08	$28.58	$2.50
Multi-Family Residential (MFR)	$19.56	$19.92	$0.36
Senior Housing	$15.65	$15.39	($0.26)
Mobile Home	$15.65	$19.92	$4.27
Non-Residential			
Office with LM* (SCD)	$20.86	$24.86	$4.00
Office w/o LM* (SDL)	$20.86	$19.89	($0.97)
Commercial with LM * (SCR)	$26.08	$30.32	$4.24
Commercial w/o LM* (SRL)	$26.08	$24.26	($1.82)
Restaurant with LM * (SRR)	$26.08	$35.78	$9.70
Restaurant w/o LM* (RRL)	$26.08	$28.63	$2.55
Café with LM * (SRD)	$26.08	$35.78	$9.70
Café w/o LM* (RDL)	$26.08	$28.63	$2.55

* LM stands for Landscape Meter

** For schools, unit of measure is $/student/month; for pump truck, $/750 gallons; for lift station, $/EDU/year

Table 5-3: Proposed Sanitation Usage Charges after Revenue Adjustment in FY 2015-16

	Current $/EDU	FY 2015-16 $/EDU	$ Impact per EDU
Non-Residential			
Office with LM* (SCD)	$1.90	$3.56	$1.66
Office w/o LM* (SDL)	$1.52	$2.85	$1.33
Commercial with LM * (SCR)	$2.37	$4.34	$1.97
Commercial w/o LM* (SRL)	$1.90	$3.47	$1.57
Restaurant with LM * (SRR)	$5.22	$5.12	($0.10)
Restaurant w/o LM* (RRL)	$4.18	$4.09	($0.09)
Café with LM * (SRD)	$3.79	$5.12	$1.33
Café w/o LM* (RDL)	$3.03	$4.09	$1.06
High Schools **	$1.12	$0.95	($0.17)
Other Schools **	$0.37	$0.63	$0.26
Pump Truck **	$14.35	$22.28	$7.93
Wood Ranch/Big Sky Lift Station Fee**	$71.88	$79.68	$7.80
Duplex Unit Lift Station Fee**	$53.44	$55.53	$2.09
Wood Ranch Golf Restroom Lift Station Fee**	$143.80	$163.51	$19.71

* LM stands for Landscape Meter

** For schools, unit of measure is $/student/month; for pump truck, $/750 gallons; for lift station, $/EDU/year

5.2 Customer Class Impacts

Upon developing the proposed monthly and usage rates as shown in Tables 5-1 and 5-2, customer class costs can be determined by applying unit costs to the projected FY 2014-15 flows and loadings for each user class. Cost responsibilities for each customer class and their impacts are shown in Table 5-4.

Table 5-4: Customer Class Impacts

	Current $/Class	FY 2015-16 $/Class
Residential		
Single Family Residential (SFR)	$10,148,538	$11,138,048
Multi-Family Residential (MFR)	$1,839,185	$1,875,845
Senior Housing	$231,996	$228,484
Mobile Home	$115,247	$146,911
Non-Residential		
Office with LM* (SCD)	$408,929	$692,076
Office w/o LM* (SDL)	$144,319	$252,908
Commercial with LM * (SCR)	$333,450	$572,975
Commercial w/o LM* (SRL)	$41,320	$72,347
Restaurant with LM * (SRR)	$257,364	$257,287
Restaurant w/o LM* (RRL)	$42,435	$41,870
Café with LM * (SRD)	$225,320	$305,243
Café w/o LM* (RDL)	$97,213	$129,232
High Schools	$70,942	$68,511
Other Schools	$56,578	$110,263

* LM stands for Landscape Meter

5.3 Sanitation Rates Survey

Figure 5-1 shows a comparison of bills by month for single-family residential customers for sanitation services neighboring the City. The City's current monthly rate of $26.08 is the lowest in the region. With the first proposed adjustment recommended for July 2015 implementation, the City's position in the region would change to second lowest among the ten agencies surveyed. Note that the other agencies are likely adopting revised rates and over the next five years (Study period) are likely to further increase their own rates to meet changing requirements.

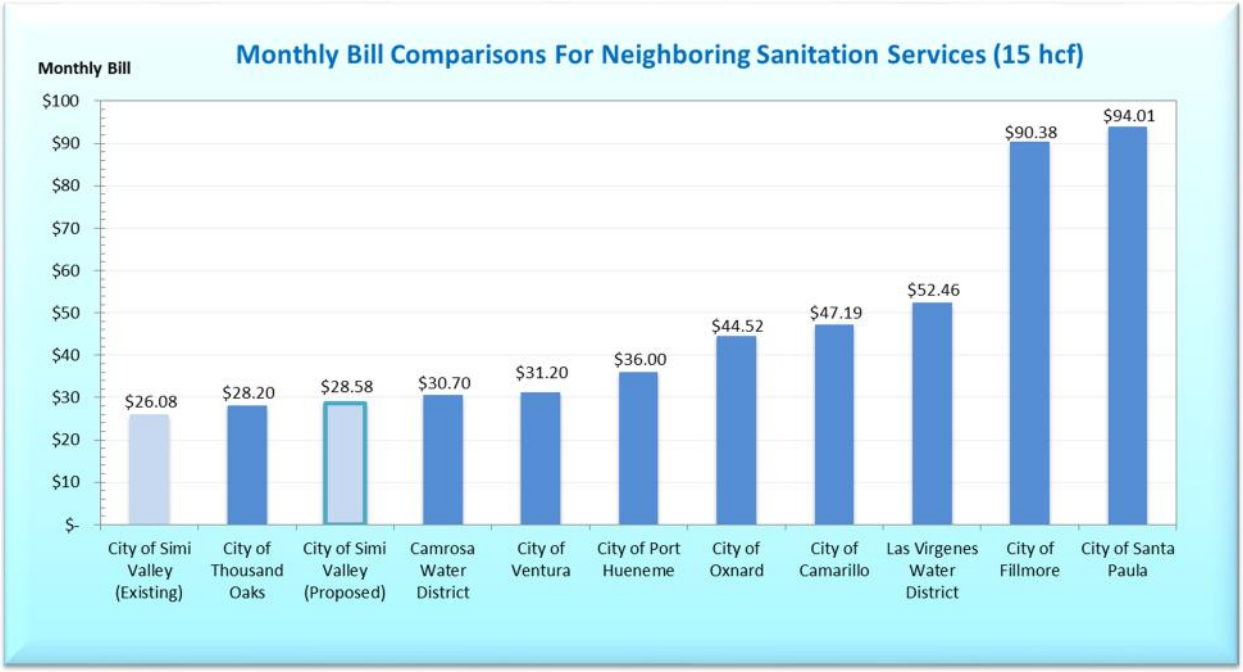

Figure 5-1: Bill Comparisons for Sanitation Services Neighboring City of Simi Valley

6 Sewer Lift Station Fees

The City owns and operates two sewer lift stations which aid in the collection of sewage in the Wood Ranch and Big Sky developments. RFC was tasked with estimating the fee for those dwelling units benefiting from the lift stations.

Five assets comprise the capital infrastructure included in the fee: two lift stations completed in 1986 and 2006 respectively, pumps, control equipment, and a generator. Replacement cost of the assets was calculated using the original cost of the asset and Engineering News-Record's (ENR) Construction Cost Index (CCI). An inflation rate is derived from the index value in the acquisition year and the current year. To determine the fee per equivalent dwelling unit, the replacement cost is divided by the useful life of the asset and the number of dwelling units benefiting from the lift stations (473 EDU).

Using the above methodology, Table 6-1 shows the current and proposed fee for the two communities. Note that fees are assessed on a per EDU basis. Therefore, the duplex residences within Wood Ranch pay a fee relative to the MFR class density of 2.20 persons per household, versus SFR density of 3.16 persons per household[3]. Table 6-2 lists the lift station assets and corresponding replacement costs. Table 6-3 shows in detail the annual fee calculation.

[3] Household densities were provided by the City in Quarterly Report: "Residential Building Permit Finals"

Table 6-1: Current and Proposed Lift Station Fee

Community and Dwelling Type	Current Fee	Proposed Fee
Big Sky		
Single Family Residential (SFR)	$71.88	$79.68
Wood Ranch		
Single Family Residential (SFR)	$71.88	$79.68
Duplex (MFR)	$53.44	$55.53
EDUs Served	473	

Table 6-2: Replacement Cost Calculations of Lift Station Assets

Asset Name	Useful Life (years)	Completed (year)	Original Cost ($)	CCI Inflation (%)	Replacement Cost ($)
Big Sky Lift Station	40	2006	$425,356	124%	$528,514
Pumps	15	2015	$40,000	100%	$40,000
Wood Ranch Lift Station	40	1986	$70,000	197%	$137,838
Generator & Electrical	40	2011	$368,000	107%	$392,844
Pumps and Controls	15	2011	$120,000	107%	$128,101
Total			**$558,000**		**$1,227,298**

Table 6-3: Lift Station Fee Calculation

Asset Name	Replacement Cost ($)	Useful Life (years)	EDUs	*Fee/Yr.
Big Sky Lift Station	$528,514	40	473	$27.93
Pumps	$40,000	15	473	$5.64
Wood Ranch Lift Station	$137,838	40	473	$7.29
Generator & Electrical	$392,844	40	473	$20.76
Pumps and Controls	$128,101	15	473	$18.06
Total	**$1,227,298**			**$79.68**

*Fee is calculated by dividing the replacement cost by the asset's useful life and number of EDUs served (473 EDUs). Using Big Sky Lift Station as an example, $528,514/40/473 = $27.93.

7 Conclusion

This Study was conducted to address the environment of revenues from rates being outpaced by operating expenditures and costs to maintain existing infrastructure. In determining future revenue requirements for the City's sanitation enterprise, RFC developed a financial plan and ensured fair and equitable rates per Proposition 218 that minimized rate impacts to its customers.

RFC recommends that the City take steps to implement the revised rates. Because the financial landscape including customer usage, revised CIP estimates, and other estimates is continuously changing, RFC further recommends that the City revisit its financial plan and its inputs on a periodic basis.