

SUMMERLAND SANITARY DISTRICT

Financial Plan and Rate Study

December 6, 2017





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December 6, 2017

Michael Sullivan
General Manager
Summerland Sanitary District
2435 Wallace Avenue
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Subject: Wastewater Financial Plan and Rate Study

Dear Mr. Sullivan,

Raftelis Financial Consultants, Inc. (Raftelis) is pleased to provide this Financial Plan and Rate Study Report (Report) for the Summerland Sanitary District (SSD or District), which develops a financial plan and updated rates for fiscal years 2019 to 2023 and provides resulting rate adjustment recommendations.

This report details creation of the financial plan, including capital projects, operating budgets, inflationary assumptions, and customer data for the study period. The report also documents the cost of service allocations and review of the equivalent dwelling unit (EDU) definition and updates to the District's miscellaneous fees.

It has been a pleasure working with you, and we thank Marjon Souza for the support provided during this study.

Sincerely,
Raftelis Financial Consultants, Inc.

A handwritten signature in blue ink, appearing to read 'Sudhir Pardiwala', written over a light blue circular stamp.

Sudhir Pardiwala

A handwritten signature in blue ink, appearing to read 'Kevin Kostiuk', written in a stylized, cursive script.

Kevin Kostiuk

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1. EXECUTIVE SUMMARY

1.1 STUDY BACKGROUND

The most recent rate study was completed in 2013. This study consists of financial plan development, cost of service analysis, and rate development. Raftelis has developed projections for a ten-year financial planning horizon, including five years of proposed rates.

1.2 RESULTS & RECOMMENDATIONS

1.2.1 Reserve Policy

SSD's primary reserve funds include an operating fund (Operating Fund 5215) and capital fund (Capital Repair and Replacement (R&R) Fund 5217). The proposed target reserves for the utility are summarized in Table 1-1 below. In addition to the operating and capital reserves, Raftelis recommends SSD maintain \$2 million in emergency funding in case of asset failure and/or natural disaster. These funds provide the District with working capital to maintain and restore service without undue delay.

Table 1-1: Reserve Policies

Fund	Policy	Reserve Target FY 2018
Operating Fund 5215	Six months of O&M expenses	\$470 thousand
Capital Repair and Replacement Fund 5217	One year of annual depreciation	\$142 thousand
Emergency Target	\$2 million	\$2 million
Total Reserves		\$2.6 million

1.2.2 Proposed Financial Plan

Based on meetings with SSD staff, and a workshop with the Finance Committee of the Board of Directors, Raftelis recommends 3.5 percent annual revenue adjustments in FY 2019 through 2023 in order to meet inflating operating and capital expenses and achieve reserve targets. Revenue adjustments are proposed to be effective on July 1 of each fiscal year.

Table 1-2: Proposed Revenue Adjustments

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Revenue Adjustment	3.5%	3.5%	3.5%	3.5%	3.5%

Applying these adjustments results in the proposed financial plan in Table 1-3. SSD generates sufficient revenue to meet its operating requirement, fund the capital improvement program (CIP), and achieve reserve targets by the end of the ten year horizon. SSD will fund capital improvements with rate revenues through existing cash reserves and grant revenues where possible.

Table 1-3: Proposed Financial Plan

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Operating Revenues					
Revenue from Existing Rates	\$896,461	\$896,461	\$896,461	\$896,461	\$896,461
Total Revenue Adjustments	\$31,376	\$63,850	\$97,461	\$132,249	\$168,253
Total Rate Revenue	\$927,837	\$960,311	\$993,922	\$1,028,709	\$1,064,714
Total Non-Rate Revenue	\$263,912	\$271,426	\$279,161	\$287,123	\$295,321
Total Operating Revenue	\$1,191,749	\$1,231,737	\$1,273,083	\$1,315,833	\$1,360,035
O&M Expenditures					
Finance - Customer Service	\$718,926	\$740,493	\$762,708	\$785,589	\$809,157
Administration	\$252,247	\$259,814	\$267,609	\$275,637	\$283,906
Total O&M Expenses	\$971,173	\$1,000,308	\$1,030,317	\$1,061,226	\$1,093,063
Revenues Less Operating Expenses	\$220,577	\$231,429	\$242,766	\$254,606	\$266,972
Capital Projects	\$142,091	\$146,353	\$150,744	\$155,266	\$159,924
Debt Service	\$0	\$0	\$0	\$0	\$0
Net Cash Change	\$78,486	\$85,076	\$92,022	\$99,340	\$107,047
Beginning Balance	\$1,762,615	\$1,841,101	\$1,926,177	\$2,018,198	\$2,117,538
Ending Balance	\$1,841,101	\$1,926,177	\$2,018,198	\$2,117,538	\$2,224,585
Target	\$2,627,677	\$2,642,245	\$2,657,249	\$2,672,704	\$2,688,622

Figure 1-1 shows the proposed operating financial plan that will allow SSD to adequately fund O&M expenses and reserves for capital improvements, while achieving reserve targets. As shown by the blue line, the proposed financial plan is able to sufficiently fund operations and capital expenses, while the current plan (black line) falls short as the Study Period progresses.

Figure 1-1: Proposed Financial Plan



Figure 1-2 shows the total balance (operating, capital, and emergency) of the SSD cash reserves. The green line represents the long term target balance with the green bars representing the year-end reserves balance. Reserves slowly build towards the target in each year growing from \$1.8 million in FY 2019 to \$2.2 million in FY 2023.

Figure 1-2: Fund Balance with Proposed Financial Plan



Figure 1-3 shows the estimate of the capital program for five years. The capital spending for each year is equal to system depreciation in order to maintain the built system at the same level of service and guard against asset failure. Capital expenditures are anticipated to be funded exclusively on a “pay-as-you-go” (PAYGO) basis.

Figure 1-3: Capital Improvement Program



1.2.3 Proposed Five-Year Rates

Five years of rates are proposed for adoption by the Board. Applying the rate adjustments in Table 1-2 for FY 2019 through FY 2023 to the current service charges results in the proposed rates in Table 1-4. Rates are rounded up to the nearest whole dollar.

Table 1-4: Proposed FY 2019 through 2023 Service Charges

Customer Class	Current	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
\$/EDU/Year	\$1,024	\$1,060	\$1,098	\$1,137	\$1,177	\$1,219

The cost of service analysis evaluated the reasonableness of the existing equivalent dwelling unit (EDU) definition which consists of components for wastewater flow, biochemical oxygen demand (BOD), and suspended solids (SS). Raftelis determined that the existing definitions are still reasonable and so no change to the definition is warranted.

2. INTRODUCTION

2.1 STUDY BACKGROUND

The Summerland Sanitary District (SSD) is a special district, organized in 1957, that provides wastewater services to most of the Town of Summerland. The service area is different from the C boundaries. SSD is governed by a five member Board of Directors and is operated by the District General Manager. In 1991 the District's treatment plant was upgraded to a tertiary treatment facility processing up to 0.3 million gallons per day (MGD) of wastewater. The collection system consists of nearly nine miles of pipe and three lift (pumping) stations. Treated wastewater is discharged through a 12 inch-diameter ocean outfall, 740 feet offshore into the Pacific Ocean.

Managing wastewater systems requires balancing the need for reliable systems with the need to meet user demand while minimizing the impact on the ratepayers. In finding this balance, key issues include rate stability, affordability, equity, and defensibility. SSD is subject to inflationary pressure on costs, fluctuating capital costs, and increasing regulatory demand.

The most recent rate study was completed in 2013. This study consists of a long term financial plan development and associated rates based upon existing cost of service definitions. Raftelis has developed projections for a ten-year financial planning horizon, including five years of proposed rates. These rate adjustments will prompt Proposition 218 procedures.

The objectives of the Study include:

1. Develop a financial plan and propose revenue adjustments for the utility to ensure financial sufficiency, adequate reserves, and funding for capital improvements
2. Conduct a cost-of-service (COS) analysis for the system and review equivalent dwelling unit (EDU) definitions
3. Develop wastewater rates that fairly and equitably recover costs from all customer classes, maintaining compliance with the requirements of Proposition 218
4. Update the District's schedule of miscellaneous fees to recover the full cost of each fee

2.2 LEGAL FRAMEWORK

2.2.1 California Constitution – Article XIII D, Section 6 (Proposition 218)

Proposition 218, reflected in the California Constitution as Article XIII D, was enacted in 1996 to ensure that rates and fees are reasonable and proportional to the cost of providing service. The principal requirements for fairness of the fees, as they relate to public wastewater service are as follows:

1. A property-related charge (such as water and sewer rates) imposed by a public agency on a parcel shall not exceed the costs required to provide the property related service.
2. Revenues derived by the charge shall not be used for any 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.

2.3 COST-BASED RATE-SETTING METHODOLOGY

Proposition 218 requires that wastewater rates and charges should be recovered from classes of customers in proportion to the cost of serving those customers.” It also requires that the wastewater rate-setting methodology must be sound and that there must be a nexus between the costs and the rates charged. Raftelis follows industry standard rate setting methodologies set forth by the Water Environment Federation (WEF) *Manual of Practice No. 27, Financing and Charges for Wastewater Systems, 2004* to ensure this study meets Proposition 218 requirements.

To develop utility rates that comply with Proposition 218 and industry standards while meeting other emerging goals and objectives of the utility, there are four major steps discussed below.

1) *Calculate Revenue Requirement*

The rate-making process starts by determining the test year revenue requirement, which for this study is FY 2019. The revenue requirement should sufficiently fund the utility’s O&M, debt service, capital expenses, and reserve funding.

2) *Cost of Service Analysis (COS)*

The annual cost of providing wastewater service is distributed among customer classes commensurate with their service requirements. A COS analysis involves the following:

1. Functionalize costs
2. Allocate functionalized costs to cost components. Cost components include wastewater flow, biological oxygen demand (BOD), and total suspended solids (TSS)
3. Distribute the cost components to determine revenues to be collected from customer classes

3) *Rate Design and Calculations*

Rates do more than simply recover costs. Within the legal framework and industry standards, properly designed rates should support and optimize a blend of various utility objectives, such as affordability for essential needs and revenue stability. Rates may also act as a public information tool in communicating these objectives to customers.

4) *Rate Adoption*

Rate adoption is the last step of the rate-making process to comply with Proposition 218. Raftelis documented the rate study results in this Study Report to serve as SSD’s administrative record and to help educate the public about the proposed changes, the rationale and justifications behind the changes, and their anticipated financial impacts in lay terms.

3. WASTEWATER SYSTEM

This section briefly describes the SSD wastewater system, customer account data, and current rates and rate structure for FY 2019. The revenue calculated for each of the fiscal years in the Financial Plan is a function of the number of accounts, account growth, and existing rates.

3.1 SYSTEM FACILITIES

The District’s infrastructure consists of a collection system- which extends throughout the service area- and one wastewater treatment plant (WWTP). The plant treats on average 80,000 gallons per day (0.08 MGD) of influent. It is built to serve a maximum capacity of 0.3 MGD. The collection system consists of three lift stations and approximately 8.8 miles of pipeline. Solids are transported offsite for disposal.

3.2 EQUIVALENT DWELLING UNITS AND ACCOUNTS

SSD charges customers a fixed annual service charge. The service charge is assessed on a customer’s property tax bill and is charged per equivalent dwelling unit (EDU). For example, Single Family Residential (SFR) homes are a single dwelling unit; a duplex equals two dwelling units; a housing complex with 12 apartment units equals 12 dwelling units, and so on. Table 3-1 lists the total EDUs in the SSD service area and the corresponding customer class. Note, the financial plan assumes no increase (zero growth) in total EDUs during the Study Period.

Table 3-1: Equivalent Dwelling Units

Residential Customer Class	Equivalent Dwelling Units
Total Residential	703
Non-Residential	
Barber & Beauty shop	9.25
Bed and Breakfast- per 10 rooms	9.00
Firestation	2.00
Food Market <5,000 sq.ft.	4.64
Food Market – with food grinder	7.10
Healthclub	6.00
Meeting Hall-Church w.o. kitchen	1.60
Offices- per 10 employees	6.00
Offices- per 10 employees QAD	30.00
Offices- Medical/Dental	4.66
Restaurant- per 1,000 sq.ft.	41.40
Retail – per 1,000 sq.ft.	29.00
Small Retail < 400 sq.ft.	2.80
School- per 40 students	4.00
Pacifica	14.00
Coffee Shop	1.00
Total Non-Residential	172
Total EDUs	875

3.3 CURRENT RATES AND REVENUES

The current fixed annual service charge is \$1,024 per EDU. The revenues generated from existing rates and charges are assessed for the ability to meet the utility’s projected revenue requirements. Revenue generated by existing rates serves as the basis for any required revenue adjustments for the study period.

Table 3-2 shows the projected revenues from existing rates over the five-year horizon. EDU counts are multiplied by the current charge per EDU of \$1,024.

Table 3-2: Projected Revenue from Current Rates

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Residential Charges	\$719,872	\$719,872	\$719,872	\$719,872	\$719,872
Non-Residential Charges	\$176,589	\$176,589	\$176,589	\$176,589	\$176,589
Total Revenue from Rates	\$896,461	\$896,461	\$896,461	\$896,461	\$896,461

4. FINANCIAL PLAN

This section describes the assumptions used in projecting operating and capital expenses as well as reserve requirements that determine the overall revenue adjustments required to ensure the financial health of the utility. Developing a financial plan includes an analysis of annual operating revenues under the current rates, O&M expenses, capital expenditures, and reserve requirements. Revenue adjustments represent the average increase in rates for the utility as a whole.

4.1 OPERATING & MAINTENANCE EXPENSES

4.1.1 Inflationary Assumptions

To ensure that future costs are reasonably projected, we make informed assumptions about inflation factors. Table 4-1 shows the inflationary assumptions incorporated in the five-year Financial Plan. Each expense is assigned the most applicable inflation factor. Percentages were informed by the Consumer Price Index (CPI), Construction Cost Index (CCI), estimated increases in utility energy costs, and SSD staff input.

Table 4-1: Inflation Factors

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
General Inflation	3%	3%	3%	3%	3%
Salary	3%	3%	3%	3%	3%
Benefits	3%	3%	3%	3%	3%
Energy	3%	3%	3%	3%	3%
Property Tax	2%	2%	2%	2%	2%
Capital	3%	3%	3%	3%	3%
Other Operating Revenues	2%	2%	2%	2%	2%
Interest	1%	1%	1%	1%	1%

4.1.2 Projected O&M

O&M expenses include the costs of operating and maintaining the wastewater collection, treatment, and disposal facilities, as well as the costs of providing technical services such as laboratory services and other administrative costs of the wastewater system such as customer service. The projected O&M shown in Table 4-2 is based on the FY 2018 budget inflated by the factors in Table 4-1. Table 4-3 summarizes the O&M expenses to the two main categories: Salaries and Employees Benefits and Services and Supplies.

Table 4-2: FY 2019-2023 Projected O&M

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Regular Salaries	\$422,749	\$435,432	\$448,494	\$461,949	\$475,808
Standby	\$10,300	\$10,609	\$10,927	\$11,255	\$11,593
Overtime	\$5,665	\$5,835	\$6,010	\$6,190	\$6,376
Retirement	\$149,014	\$153,485	\$158,089	\$162,832	\$167,717
Retirement Healthcare Contr.	\$5,047	\$5,198	\$5,354	\$5,515	\$5,680
District Contr. (Fica & Med)	\$30,865	\$31,791	\$32,745	\$33,727	\$34,739
Health & Dental, LI. Contrib.	\$85,392	\$87,954	\$90,593	\$93,310	\$96,110
Workers' Comp.	\$9,893	\$10,190	\$10,496	\$10,811	\$11,135
Services and Supplies	\$2,060	\$2,122	\$2,185	\$2,251	\$2,319
Uniforms/ Boots	\$8,240	\$8,487	\$8,742	\$9,004	\$9,274
Telephone Service Long Dist.	\$15,450	\$15,914	\$16,391	\$16,883	\$17,389
Liability Insurance	\$12,360	\$12,731	\$13,113	\$13,506	\$13,911
Directors Fees	\$30,900	\$31,827	\$32,782	\$33,765	\$34,778
Operating Supplies	\$21,630	\$22,279	\$22,947	\$23,636	\$24,345
Audit & Acct's	\$9,270	\$9,548	\$9,835	\$10,130	\$10,433
Maint. Buildings & Grounds	\$15,450	\$15,914	\$16,391	\$16,883	\$17,389
Maintenance Equipment	\$22,660	\$23,340	\$24,040	\$24,761	\$25,504
Lab Services	\$6,180	\$6,365	\$6,556	\$6,753	\$6,956
Memberships	\$4,635	\$4,774	\$4,917	\$5,065	\$5,217
Office Expense	\$309	\$318	\$328	\$338	\$348
Books & Subscrip.	\$5,150	\$5,305	\$5,464	\$5,628	\$5,796
IT Professional Serv./Hardware	\$20,085	\$20,688	\$21,308	\$21,947	\$22,606
Prof. & Special Service	\$12,360	\$12,731	\$13,113	\$13,506	\$13,911
Legal Fees	\$6,180	\$6,365	\$6,556	\$6,753	\$6,956
Contract Services	\$7,210	\$7,426	\$7,649	\$7,879	\$8,115
Permitting Services	\$515	\$530	\$546	\$563	\$580
Publications & Legal Notices	\$3,296	\$3,395	\$3,497	\$3,602	\$3,710
Administration Expense	\$309	\$318	\$328	\$338	\$348
Small Tools & Instruments	\$2,575	\$2,652	\$2,732	\$2,814	\$2,898
Training Fees & Supplies	\$5,150	\$5,305	\$5,464	\$5,628	\$5,796
Special Projects	\$412	\$424	\$437	\$450	\$464
Transportation & Travel	\$1,545	\$1,591	\$1,639	\$1,688	\$1,739
Gas-Oil-Fuel	\$33,990	\$35,010	\$36,060	\$37,142	\$38,256
Electricity	\$1,339	\$1,379	\$1,421	\$1,463	\$1,507
Water	\$2,987	\$3,077	\$3,169	\$3,264	\$3,362
Trash/Marborg Disposal	\$2,060	\$2,122	\$2,185	\$2,251	\$2,319
Uniforms/ Boots	\$8,240	\$8,487	\$8,742	\$9,004	\$9,274
Total O&M	\$971,173	\$1,000,308	\$1,030,317	\$1,061,226	\$1,093,063

Table 4-3: FY 2019-2023 Projected O&M Summary

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Salaries and Employee Benefits	\$718,926	\$740,493	\$762,708	\$785,589	\$809,157
Services and Supplies	\$252,247	\$259,814	\$267,609	\$275,637	\$283,906
Total O&M	\$971,173	\$1,000,308	\$1,030,317	\$1,061,226	\$1,093,063

4.2 CAPITAL IMPROVEMENT PLAN

Table 4-4 provides the estimated capital expenditures for the rate setting period. The CIP is proposed to be funded exclusively with rate revenues (reserves).

Table 4-4: Detailed Capital Improvement Plan

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Annual Depreciation	\$142,091	\$142,091	\$142,091	\$142,091	\$142,091
Construction Cost Inflation	3%	3%	3%	3%	3%
Total (Inflated)	\$142,091	\$146,353	\$150,744	\$155,266	\$159,924

4.3 DEBT SERVICE

4.3.1 Current Debt Service

SSD has no existing debt.

4.4 RESERVE POLICY

A reserve policy is a written document that establishes reserve goals or targets. It provides guidelines for sound financial management with an overall long-term goal of maintaining financial solvency and mitigating financial risks associated with revenue timing, volatile capital costs, and emergencies. Additionally, adopting and adhering to a sustainable reserve policy helps to achieve and maintain a favorable credit rating for future debt issues.

The appropriate amount of reserves and reserve types are determined by a variety of factors, such as the size of the operating budget, planned capital improvements, the amount of debt, the type of rate structure, frequency of customer billing, and risk of natural disaster, among others. Typically, reserves for wastewater utilities fall into the following categories: operations & maintenance (O&M), capital, debt service, and emergency. Reserves can help meet working capital requirements, offset unanticipated reductions in revenues, fluctuations in costs of providing services, and fiscal emergencies such as revenue shortfalls, asset failures, and natural disasters. Capital reserves set funds aside for replacement of capital assets as they age, as well as for new capital projects.

SSD's primary reserve funds are an operating fund (Operating Fund 5215) and a capital fund (Capital Repair and Replacement (R&R) Fund 5217). Reserves in the capital fund are designated for planned capital projects. The proposed target reserves for the District are summarized in Table 4-5 below. In addition to the operating

and capital reserves, Raftelis recommends SSD maintain emergency funds in case of asset failure and/or natural disaster. The target amount of emergency reserves was determined with the input of SSD staff with considerations for failure of the ocean outfall, failure of mainline collectors experienced by neighboring agencies, and long term District liabilities. These funds provide the District with working capital to restore service without delay.

Table 4-5: Reserve Policies

Fund	Policy	Reserve Target FY 2018
Operating Fund 5215	Six months of O&M expenses	\$470 thousand
Capital Repair and Replacement Fund 5217	One year of annual depreciation	\$142 thousand
Emergency Target	\$2 Million	\$2 million
Total Reserves		\$2.6 million

4.5 CURRENT FINANCIAL PLAN

Table 4-6 shows the current financial plan based on the projected O&M and capital expenses with no revenue adjustments. Under the current rates, SSD generates sufficient revenue for operations, but does not generate sufficient revenue to meet capital expenses in FYs 2021, 2022, and 2023. Funds from reserves must be used to carry out capital projects and funds are slowly drawn down from their existing balances.

Table 4-6: Current Financial Plan

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Operating Revenues					
Revenue from Existing Rates	\$896,461	\$896,461	\$896,461	\$896,461	\$896,461
Total Revenue Adjustments	\$0	\$0	\$0	\$0	\$0
Total Rate Revenue	\$896,461	\$896,461	\$896,461	\$896,461	\$896,461
Total Non-Rate Revenue	\$263,912	\$271,426	\$279,161	\$287,123	\$295,321
Total Operating Revenue	\$1,160,373	\$1,167,887	\$1,175,621	\$1,183,584	\$1,191,781
O&M Expenditures					
Salaries and Employee Benefits	\$718,926	\$740,493	\$762,708	\$785,589	\$809,157
Services and Supplies	\$252,247	\$259,814	\$267,609	\$275,637	\$283,906
Total O&M Expenses	\$971,173	\$1,000,308	\$1,030,317	\$1,061,226	\$1,093,063
Revenues Less Operating Expenses	\$189,201	\$167,579	\$145,304	\$122,358	\$98,718
Capital Projects	\$142,091	\$146,353	\$150,744	\$155,266	\$159,924
Debt Service	\$0	\$0	\$0	\$0	\$0
Net Cash Change	\$47,110	\$21,225	(\$5,440)	(\$32,909)	(\$61,206)
Beginning Balance	\$1,762,615	\$1,809,725	\$1,830,950	\$1,825,510	\$1,792,601
Ending Balance	\$1,809,725	\$1,830,950	\$1,825,510	\$1,792,601	\$1,731,395
Target	\$2,627,677	\$2,642,245	\$2,657,249	\$2,672,704	\$2,688,622

4.6 PROPOSED FINANCIAL PLAN

Raftelis held discussions with the Finance Committee and District staff in developing a sound financial plan. In order for the utility to meet operational expenses, fund capital projects, and achieve reserve targets, Raftelis recommends that SSD implement the revenue adjustments in Table 4-7. Each revenue adjustment is intended to be effective July 1 of each fiscal year.

Table 4-7: Proposed FY 2019-2023 Revenue Adjustments

FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
3.5%	3.5%	3.5%	3.5%	3.5%

Applying the proposed revenue adjustments from Table 4-7 ensures sufficient funding of operating and capital expenses through FY 2023. The proposed financial plan in Table 4-8 generates sufficient revenue to fund capital projects while building cash reserves in a measured approach. The proposed financial plan generates positive cash flow in all years and allows the District to achieve reserve targets at the end of the ten-year period.

Table 4-8: Proposed Financial Plan

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Operating Revenues					
Revenue from Existing Rates	\$896,461	\$896,461	\$896,461	\$896,461	\$896,461
Total Revenue Adjustments	\$31,376	\$63,850	\$97,461	\$132,249	\$168,253
Total Rate Revenue	\$927,837	\$960,311	\$993,922	\$1,028,709	\$1,064,714
Total Non-Rate Revenue	\$263,912	\$271,426	\$279,161	\$287,123	\$295,321
Total Operating Revenue	\$1,191,749	\$1,231,737	\$1,273,083	\$1,315,833	\$1,360,035
O&M Expenditures					
Salaries and Employee Benefits	\$718,926	\$740,493	\$762,708	\$785,589	\$809,157
Services and Supplies	\$252,247	\$259,814	\$267,609	\$275,637	\$283,906
Total O&M Expenses	\$971,173	\$1,000,308	\$1,030,317	\$1,061,226	\$1,093,063
Revenues Less Operating Expenses	\$220,577	\$231,429	\$242,766	\$254,606	\$266,972
Capital Projects	\$142,091	\$146,353	\$150,744	\$155,266	\$159,924
Debt Service	\$0	\$0	\$0	\$0	\$0
Net Cash Change	\$78,486	\$85,076	\$92,022	\$99,340	\$107,047
Beginning Balance	\$1,762,615	\$1,841,101	\$1,926,177	\$2,018,198	\$2,117,538
Ending Balance	\$1,841,101	\$1,926,177	\$2,018,198	\$2,117,538	\$2,224,585
Target	\$2,627,677	\$2,642,245	\$2,657,249	\$2,672,704	\$2,688,622

Figure 4-1 compares the revenues under the current and proposed financial plans. As shown by the blue line, the proposed financial plan is able to sufficiently fund operations and capital expenses, while the current plan (black line) falls short as the Study Period progresses.

Figure 4-1: Current vs. Proposed Financial Plan

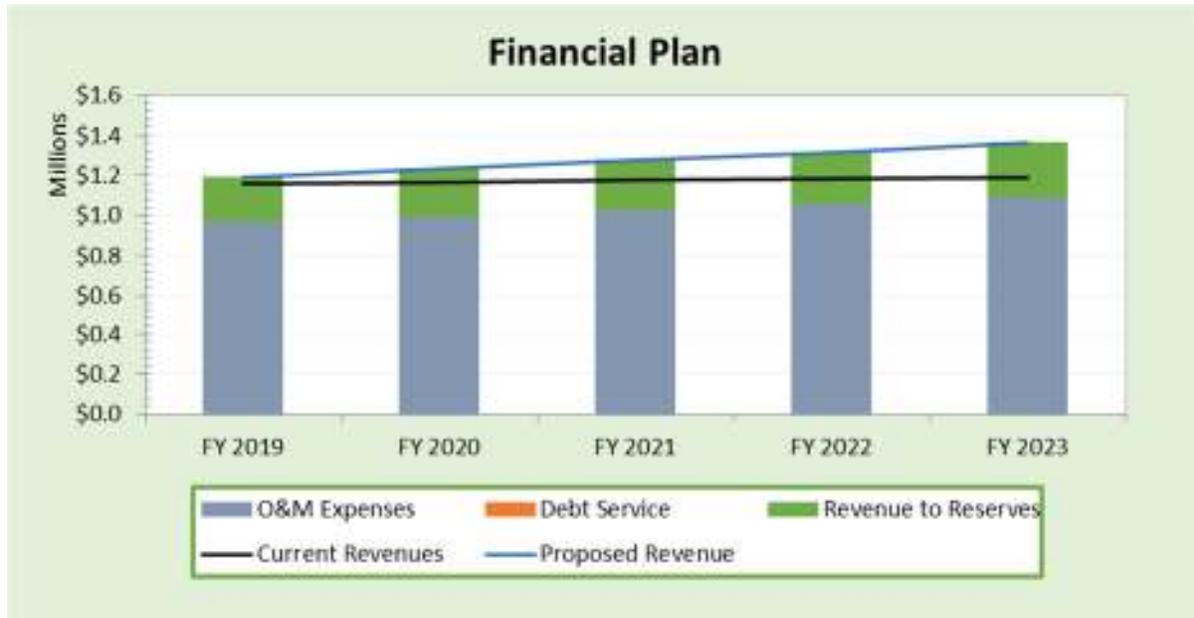


Figure 4-2 below shows the total fund balance for SSD. The green line represents the long term target balance with the green bars representing the year-end reserves balance. Reserves grow gradually towards the target from \$1.8 million to \$2.2 million between FY 2019 and FY 2023.

Figure 4-2: Total Fund Balance



Figure 4-3 shows the five-year estimated capital program for FY 2019 and beyond reflecting capital spending equal to system depreciation in order to maintain the built system at the same level of service and guard against asset failure. Capital expenditures are anticipated to be funded exclusively on a “pay-as-you-go” (PAYGO) basis.

Figure 4-3: Capital Improvement Program



5. COST OF SERVICE AND RATES FOR SERVICE

This section of the Report discusses the allocation of O&M expenses and capital costs to cost components (consistent with industry standards), the determination of unit costs, and calculation of wastewater rates on a per EDU basis.

Costs of providing wastewater service are largely dependent on the quantity (flows) and quality (strengths) of the wastewater. Quality of wastewater flows is measured by the presence of pollutants to be removed during the treatment process under the National Pollutant Discharge Elimination System (NPDES) permit. These pollutants are classified as biological oxygen demand (BOD) and suspended solids (SS).

For this analysis, we allocate wastewater utility costs of service in a manner consistent with the guidelines of the Water Environment Federation (WEF) *Manual of Practice No. 27, Financing and Charges for Wastewater Systems, 2004*. To do so, capital assets are grouped by category and then allocated to cost components of flow, strength, and general costs.

5.1 REVENUE REQUIREMENT

Proposition 218 requires a nexus between billed service charges and the costs of providing service. Based on the proposed financial plan, the cost of service analysis translates this requirement into actual rates. The first step in the cost of service analysis is to determine the amount of revenue required to be collected from rates. We adjust for revenues from sources other than rates and charges (e.g. revenues from miscellaneous services and income) which are deducted from the total. Table 5-1 shows the total revenue required from rates for the rate-setting year of FY 2019. Table 5-1: FY 2019 SSD Revenue Requirement.

Descriptions	Operating Requirement	Capital Requirement	FY 2019 Total
Revenue Requirements			
Salaries and Employee Benefits	\$718,926		\$718,926
Services and Supplies	\$252,247		\$252,247
SUBTOTAL REVENUE REQUIREMENTS	\$971,173	\$0	\$971,173
LESS OTHER REVENUES	\$263,912	\$0	\$263,912
Adjustments			
Adjustment for Annual Cash Balance		(\$220,577)	(\$220,577)
Adjustment for Annualized Increases		\$0	\$0
SUBTOTAL ADJUSTMENTS	\$0	(\$220,577)	(\$220,577)
TOTAL REVENUE FROM RATES	\$707,260	\$220,577	\$927,837

5.2 FUNCTIONAL COSTS TO COST COMPONENTS

The wastewater utility is comprised of various facilities, each designed and operated to fulfill a given function. In order to provide adequate service to its customers at all times, the utility must be capable of collecting the total amount of wastewater generated, as well as treating and removing various pollutants from wastewater. Grouping assets by function allows allocation of costs to cost components: flow BOD, and SS.

SSD charges customers on the basis of equivalent dwelling units (EDUs) which are defined based on the cost of collecting and treating wastewater. Collection systems are allocated to flow and treatment systems allocated to flow, BOD, and SS. The relative costs associated with collecting and treating are based on capital asset allocation. The cost of collection and treatment are allocated 62%, 17% and 22% to flow, BOD, and SS, respectively based on SSD data. An EDU is defined by comparing the loadings of flow, BOD, and SS of any given customer to the corresponding loadings of a single family residence as shown below:

$$EDU = \left(0.62 \times \frac{\text{Daily Flow}}{250} \right) + \left(0.17 \times \frac{BOD}{175} \right) + \left(0.22 \times \frac{SS}{175} \right)$$

Where daily flow is represented by the number of gallons per day and BOD and SS is the concentration in mg/L. One EDU is the estimated flow and strength from a single family residential account. This definition is based on the best available information from the District.

To verify the allocations to flow, BOD, and SS, Raftelis performed an allocation of capital assets. The assets are functionalized into the following categories: treatment plant, equipment, land, ocean outfall, plant expansion, shop and office, and collection lines. These categorized assets are then allocated to cost components—flow, BOD, SS, and general costs based on the design of each asset. The treatment plant is allocated 50 percent to flow, 25 percent to BOD, and 25 percent to SS consistent with industry standards for a tertiary facility.

Equipment (for treatment) is allocated 60 percent to BOD and 40 percent to SS. Land is a general asset and allocated 100 percent to general. The ocean outfall is allocated 100 percent to flow. Plant expansion is allocated in the same manner as treatment plant assets with 50 percent, 25 percent, and 25 percent allocated to flow, BOD, and SS respectively. The shop and office facilities are allocated 100 percent to general. Collection lines are allocated 100 percent to flow. Table 5-2 shows the allocations to the various cost components. Table 5-3 summarizes the total value of SSD assets, by function, in terms of their replacement costs and the relative amount allocated to each cost component given the percentages in Table 5-2. Asset values were provided by SSD staff and analyzed by Raftelis.

Table 5-2: Cost Component Percentages

Capital Assets	Replacement Cost	Flow	BOD	SS	General
Treatment Plant	\$4,188,110	50%	25%	25%	
Equipment	\$1,132,612		60%	40%	
Land	\$31,910				100%
Ocean Outfall	\$591,425	100%			
Plant Expansion	\$2,896,644	50%	25%	25%	
Shop and Office	\$58,401				100%
Collection Lines	\$4,408,778	100%			
Total Asset Value	\$13,307,880	\$8,542,580	\$2,450,756	\$2,224,233	\$90,311

Table 5-3: Allocation of Assets by Cost Component

Capital Assets	Replacement Costs	Flow	BOD	SS	General
Treatment Plant	\$4,188,110	\$2,094,055	\$1,047,027	\$1,047,027	\$0
Equipment	\$1,132,612	\$0	\$679,567	\$453,045	\$0
Land	\$31,910	\$0	\$0	\$0	\$31,910
Ocean Outfall	\$591,425	\$591,425	\$0	\$0	\$0
Plant Expansion	\$2,896,644	\$1,448,322	\$724,161	\$724,161	\$0
Shop and Office	\$58,401	\$0	\$0	\$0	\$58,401
Collection Lines	\$4,408,778	\$4,408,778	\$0	\$0	\$0
Total Asset Value	\$13,307,880	\$8,542,580	\$2,450,756	\$2,224,233	\$90,311

Table 5-4 calculates the allocation basis for the EDU definition. Totals for each cost component in Table 5-3 are shown once more in the first row of Table 5-4. Assets categorized as general are reapportioned to the three cost components constituting the EDU definition. The value of each component is divided by the sum of all assets to determine the percentage attributable to the EDU definition parameter. For example, \$8,600,949 is divided by the total value of \$13,307,880 to determine the allocation to flow. The same math is completed for the other two parameters. Raftelis calculates that 65 percent of capital value is attributable to flow, 19 percent to BOD, and 17 percent to SS. Table 5-4 also compares the Raftelis calculation to the existing EDU definition parameters of 62 percent flow, 17 percent BOD, and 22 percent SS. The existing and calculated allocations are wholly similar and no changes to the existing definition are required.

Table 5-4: Capital Allocation

Capital Assets	Flow	BOD	TSS	General
Assets by Cost Component	\$8,542,580	\$2,450,756	\$2,224,233	\$90,311
<i>Plus General Allocation</i>	<i>\$58,369</i>	<i>\$16,745</i>	<i>\$15,197</i>	<i>(\$90,311)</i>
Capital Allocation by Cost Component	\$8,600,949	\$2,467,501	\$2,239,431	\$0
Raftelis Calculated Allocation for EDU Definition	65%	19%	17%	
Existing Allocation for EDU Definition	62%	17%	22%	

The calculated allocations are close enough to the ones currently used by the District and within the margin of error of the various assumptions used in the study. Raftelis will use the current customer EDUs to calculate rates.

5.2.1 Units of Service

Since there is no change to the EDU definition or updates to individual classes, the total number of EDUs in the cost of service remains the same. The cost to serve is therefore the revenue requirement in Table 5-1 divided by the total EDUs in FY 2019:

$$\text{Unit Cost of Service} = \frac{\text{Total Annual Revenue Requirement}}{\text{Total Annual Service Units}}$$

$$\text{Unit Cost of Service} = \frac{\$927,837}{875}$$

$$\text{Unit Cost of Service} = \$1,060$$

The unit cost of service represents the annual service charge, per EDU, inclusive of the 3.5 percent proposed revenue adjustment for FY 2019.

5.3 PROPOSED FIVE-YEAR RATES

The proposed rates for the Study period follow from the analysis in Section 5.2.1. The proposed rates reflect the 3.5 percent overall revenue increase. Proposed rates for FY 2020 through 2023 are increased by the proposed 3.5 percent revenue adjustment in each year and are rounded up to the nearest whole dollar.

Table 5-5: Proposed FY 2019 through 2023 Service Charges

Customer Class	Current	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
\$/EDU/Year	\$1024	\$1,060	\$1,098	\$1,137	\$1,177	\$1,219

6. MISCELLANEOUS FEES

Miscellaneous fees are necessary to ensure that customers are compensating the utility for the cost of various services that are provided. The miscellaneous fees that have been updated include the sewer permit processing fee, plan check fees, inspection fees, sewer construction fees, sewer atlas update fee, sewer service and renewal of service availability letters, and criteria and procedure for annexation fees. The proposed miscellaneous fees are calculated based on full cost recovery assumptions. All miscellaneous fee calculations include an overhead rate of 10 percent on direct labor and any mileage charges at 57 cents per mile traveled. This is slightly higher than the rate used by the IRS because District vehicles are, in general, more expensive than the average vehicle.

6.1 SEWER PERMIT PROCESSING FEE

The permit processing fee is used to recover the cost incurred by the District personnel in processing various permits such as connection permits, repairing sewer permit, installing grease interceptor permit, etc. Currently the permit processing fee is a \$25 flat charge which does not reflect the cost to the District on the permit process. The proposed permit processing fee of \$232 has been revised to better reflect cost recovery and is based on an estimated time of two hours spent processing each permit and the associated fully burdened personnel hourly rates and materials. Raftelis recommends that the proposed fee apply only to Category I and II users. The processing of category III and IV users would take a considerable amount of additional time with the fee to be based on time and materials. The following table indicates the existing and proposed permit processing fees rounded to the nearest whole dollar.

Fee Calculation	Fee Components
Direct Labor	\$201.00
Overhead	\$20.10
Travel	\$0.00
Materials	\$10.00
Total Fee (Proposed)	\$232
Total Fee (Current)	\$25

6.2 PLAN CHECK – RESIDENTIAL

The plan check fee recovers the cost of the District’s staff reviewing the proposed construction plan to check that plans are in conformance with standard specifications, examining gradients, etc. The current plan check fees are classified as single family dwelling (SFD) and non SFD. The SFD use classification is currently not charged a plan check fee while all other classes (non SFD) are charged \$50 per hour. Estimates of the costs associated with plan checks have been provided by the District to develop a fee for plan checks involving residential use and a separate fee for non-residential. The costs are based on staff time and the fully burdened hourly rate. SSD staff estimates two and a half hours of staff time to complete a residential plan check for a total fee of \$314.

Fee Calculation	Fee Components
Direct Labor	\$285.00
Overhead	\$28.50
Travel	\$0.00
Materials	\$0.00
Total Fee (Proposed)	\$314
Total Fee (Current)	\$0

6.3 PLAN CHECK - COMMERCIAL

The existing plan check fee for non-residential users is \$50 per hour. SSD staff estimates four and a half hours of staff time to complete a commercial user plan check fee. However, as commercial uses vary significantly in size, Raftelis recommends that the proposed commercial plan check fee be considered a deposit, with the fee based on actual costs. The table below estimates the current fee at 4.5 hours of staff time to compare against the proposed fee.

Fee Calculation	Fee Components
Direct Labor	\$531.00
Overhead	\$53.10
Travel	\$0.00
Materials	\$0.00
Total Minimum Fee (Proposed)	\$585
Total Fee (Current) at \$50/hr.	\$225

6.4 INSPECTION/PERMIT

This fee recovers the cost of an inspector making trips to a construction site to conduct a walk through to ensure the construction meets codes and verifies the classification of the proposed construction. The inspection fee is currently a \$50 flat rate per SFD and \$50 per hour for all other customer classes. The proposed fees represent the true costs of providing inspection service to each customer class. SSD staff estimates that an inspection permit fee takes six and a half hours of staff time at various rates as well as average travel distance of 20 miles. The table below estimates the current fee at 6.5 hours of staff time to compare against the proposed fee.

Fee Calculation	Fee Components
Direct Labor	\$474.50
Overhead	\$47.45
Travel	\$11.40
Materials	\$0.00
Total Fee (Proposed)	\$534
Total Fee (Current) at \$50/hr.	\$325

6.5 SEWER CONSTRUCTION

There is no proposed change to the public sewer construction fee. The District will continue to require customers to pay a 3.5 percent deposit of the General Manager’s estimate of public sewer improvements, which will be credited against the costs when the work is completed. Following final inspection of the construction of the sewer facilities the amount paid shall be reconciled so that the inspection fee represents the actual cost of inspection, billed at \$123 an hour.

6.6 SEWER ATLAS UPDATE (NEW FEE)

The District currently does not have a sewer atlas update fee which is required to document extensions and changes to the District’s collection system pipelines. District staff estimates three and a half hours of labor at various rates is required to complete the update as well a cost of \$100 to print the updated sewer atlas.

Fee Calculation	Fee Components
Direct Labor	\$426.00
Overhead	\$42.60
Travel	\$0.00
Materials	\$100.00
Total Fee (Proposed)	\$569
Total Fee (Current)	\$0

6.7 SEWER SERVICE AVAILABILITY LETTER (NEW FEE)

The District currently does not have a sewer service availability letter. SSD staff estimates two hours of staff time plus materials to complete the availability letter for a total fee of \$232.

Fee Calculation	Fee Components
Direct Labor	\$201.00
Overhead	\$20.10
Travel	\$0.00
Materials	\$10.00
Total Fee (Proposed)	\$232
Total Fee (Current)	\$0

6.8 RENEWAL OF SEWER SERVICE AVAILABILITY LETTER (NEW FEE)

The District currently does not have a renewal of sewer service availability letter. SSD staff estimates one hour of staff time plus materials to complete the renewal of availability letter for a total fee of \$96.

Fee Calculation	Fee Components
Direct Labor	\$78.00
Overhead	\$7.80
Travel	\$0.00
Materials	\$10.00
Total Fee (Proposed)	\$96
Total Fee (Current)	\$0

6.9 ANNEXATION FEE

Annexation fees are collected when properties outside the District’s current boundaries want to join the District to receive service. These fees should not be confused with the administrative fees needed to process annexation application fees which are separate and over and above calculated annexation fees. Annexation fees allow joining properties to achieve equity with the properties in the District by recognizing the tax contributed by the property owners in the District. Property owners in the District have paid assessed valuation (AV) based property taxes since the formation of the District in 1957. These taxes in the past have been used to offset operating and capital costs. Developed properties paid higher taxes than undeveloped properties by virtue of their higher AV values. To determine a reasonable annexation fee, we must consider two undeveloped properties, side by side, one within the District and one outside the District. The property within the District has paid property taxes since 1957 while the property outside the District has not. To equate the two properties, the property outside the District needs to pay annexation fees so that its contribution equals that of the property within the District and it will have the same right as other properties in the District to receive sewer service. To determine annexation fees we must estimate the present value of the taxes that the property would have paid.

Currently the District charges a flat annexation fee of \$750. Raftelis proposes that the fee for a joining parcel be calculated at the time of annexation. The fee will be based on the present worth of the property tax that they would have paid plus the time and materials required by a contracted firm to determine the present value of property tax owed to achieve equity.