

NewGen Strategies & Solutions

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FINAL REPORT

SEWER COST OF SERVICE & RATE STUDY

NOVEMBER 2022



Prepared for:
City of Brea
1 Civic Center Circle, 3rd Floor
Brea, California 92821

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November 8, 2022

Kristin Griffith
Administrative Services Director
City of Brea
1 Civic Center Circle
Brea, CA 92821

Subject: Sewer Rate Study Final Report

Dear Ms. Griffith:

NewGen Strategies and Solutions, LLC (NewGen) is pleased to submit this final report to the City of Brea detailing our completed Sewer Rate Study. This report details the results of our analysis of the forecasted costs of providing sewer service to the City's customers and our recommendations for recovering these costs over the next five years.

We appreciate the opportunity to provide our professional services to the City and would like to express our sincere appreciation to City staff. The dedication and assistance provided by City staff were essential to the completion of this study. It has been a distinct pleasure to work with the City of Brea.

Very truly yours,

DocuSigned by:

C11651334F8F462...
Eric Callocchia
Principal
NewGen Strategies and Solutions, LLC

DocuSigned by:

B4BF015F92D8459...
Tia Carnes
Senior Consultant
NewGen Strategies and Solutions, LLC

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EXECUTIVE SUMMARY

The City of Brea's sewer collection system is managed by the City's Street, Sewer, Storm Drain & Sanitation Division within the Public Works Department. The collection system consists of about 134 miles of gravity sewer lines and three (3) lift stations. Flows from these local sewers discharge into Orange County Sanitation District facilities for treatment and disposal. The City levies charges on its sewer customers in order to inspect, maintain, repair, and replace its sewer collection system.

The City engaged NewGen Strategies and Solutions, LLC to conduct a Sewer Rate Study to determine the revenue needs of the City's Sewer Enterprise Fund in order to support the costs associated with the implementation of the City's newly completed Sewer Master Plan.

Projected Sewer System Revenue Requirement

The revenue requirement of the City's sewer system is the total of the projected Operating, Cash (PAYGO) Capital, and Debt Service (existing and future) costs assuming conservative escalation of the FY 2022 budget and financing of the City's Capital Improvement Program. The projected revenue requirement assumes that the City will spend an average of \$1.9 million on cash capital spending each year and issue no new debt. Miscellaneous non-rate revenues assume that revenue collected from Sewer Connection Charges increase slightly over the projection period and Interest Income remains 1.5% of the Fund Balance.

Table E-1
Sewer Fund Net Revenue Requirement Projection

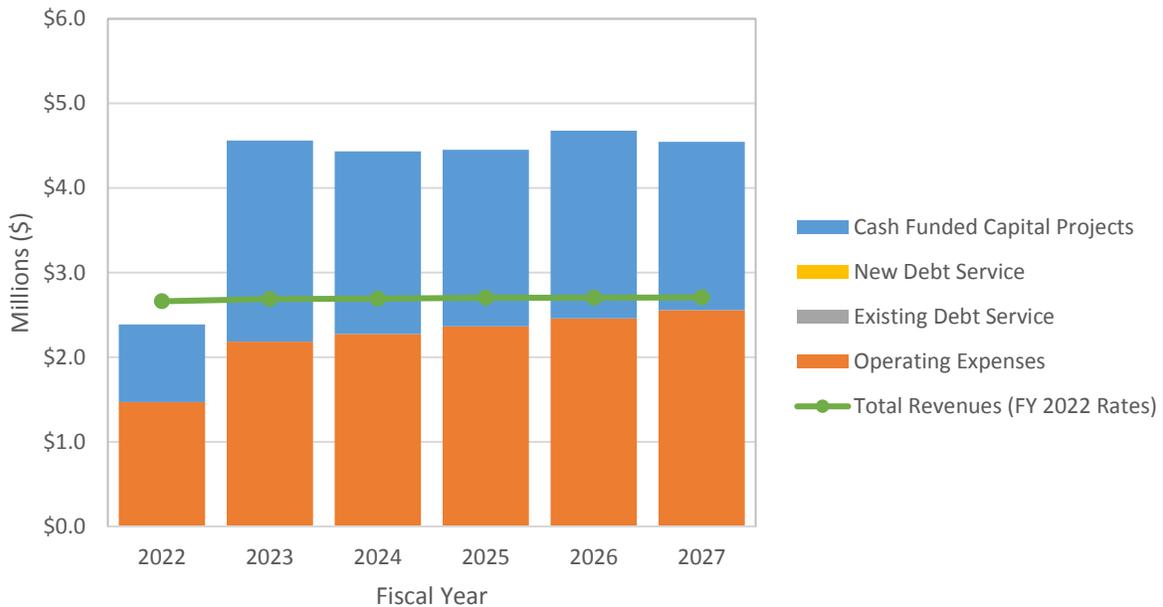
	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Operating Expenses	\$1,468,954	\$2,185,637	\$2,273,063	\$2,363,985	\$2,458,545	\$2,556,887
Existing Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
New Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Cash Capital	\$917,564	\$2,377,149	\$2,159,148	\$2,088,752	\$2,219,789	\$1,989,899
Total Rev. Req.	\$2,386,518	\$4,562,786	\$4,432,211	\$4,452,737	\$4,678,334	\$4,546,785
Less: Misc. Revenues	(\$114,628)	(\$119,493)	(\$124,222)	(\$129,157)	(\$134,249)	(\$139,537)
Net Rev. Req.	\$2,271,890	\$4,443,294	\$4,307,989	\$4,323,581	\$4,544,085	\$4,407,248

Recommended Revenue Increases

Given the revenue requirement projection detailed above with the assumption that the City does not increase any sewer rates or fees from their FY 2022 level, the following exhibits demonstrate that revenues would not be sufficient to cover system expenses in the following five fiscal years. This projection will lead to revenues falling below the City's required Sewer Fund balance in each year of the five-year projection.

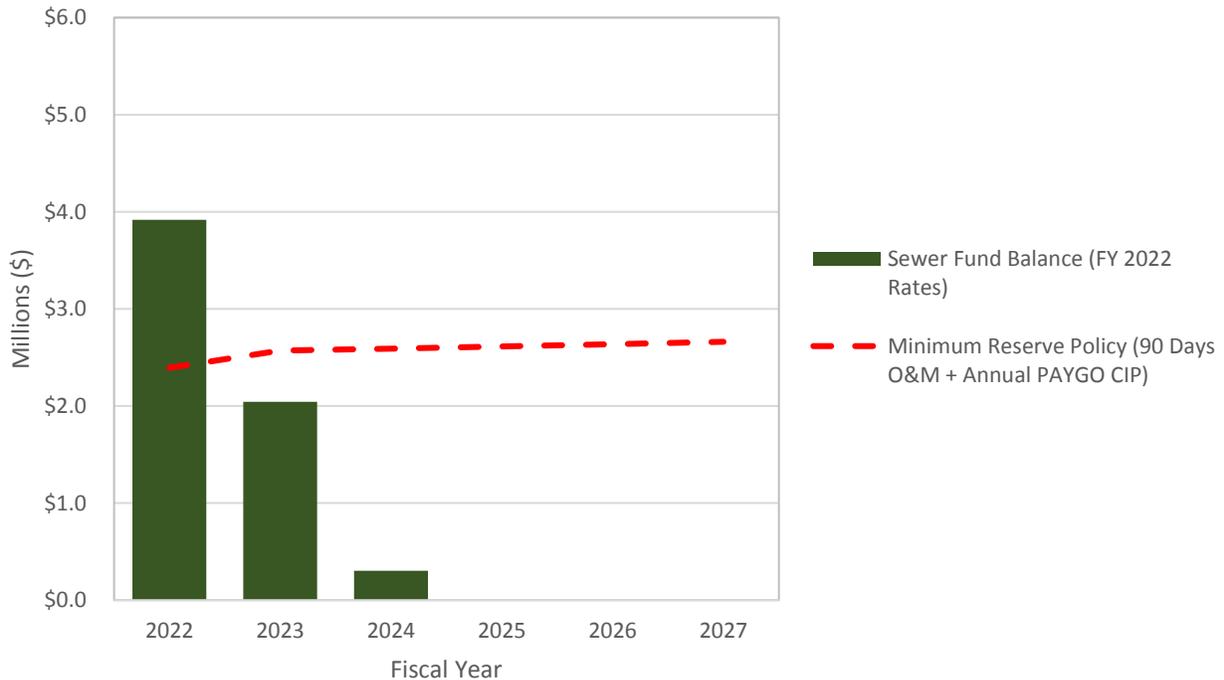
Executive Summary

Exhibit E-2 Sewer Expenses vs. Revenues Forecast Under Current FY 2022 Rates



Assuming that the City does not increase sewer rates above the FY 2022 level, the following exhibit shows the forecasted Sewer Fund balance would fall below the recommended reserve balance policy of 90 days operating expense plus one year of annual PAYGO capital spending in FY 2023, and be completely depleted before FY 2025.

Exhibit E-3 Projected Sewer Cash Balance Forecast Under Current FY 2022 Rates



Executive Summary

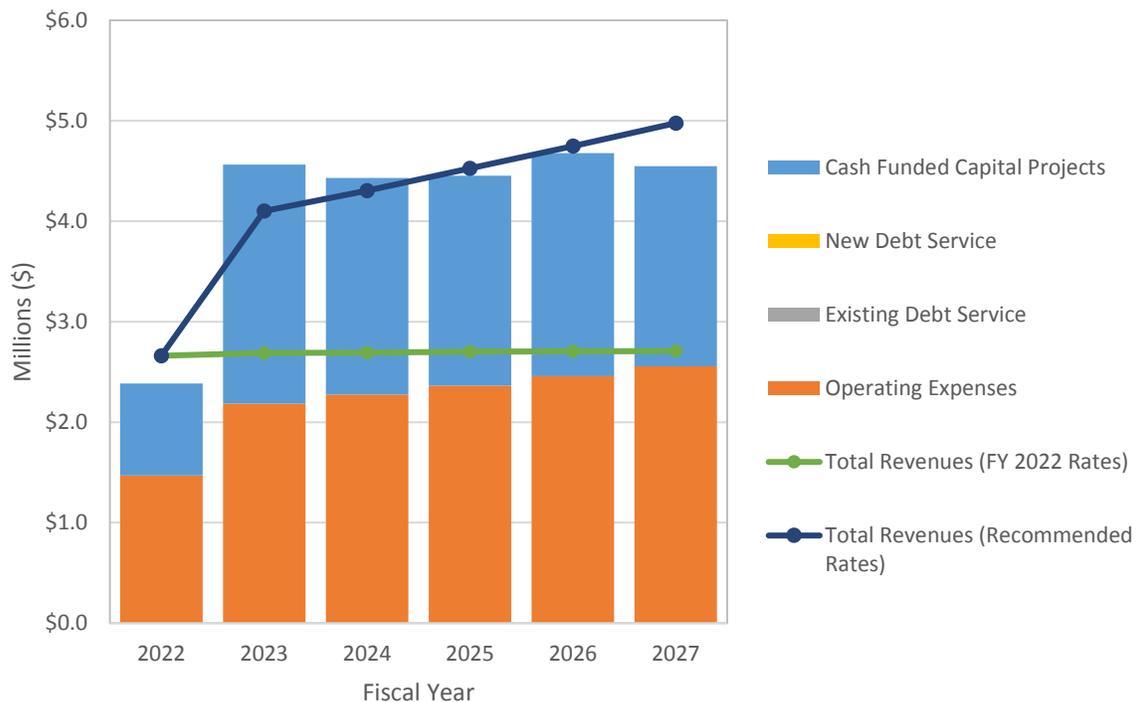
NewGen's study identified rate increases for each of the City's sewer rates that would sustain the City's sewer system under the assumed cost increases.

Table E-4
Recommended Sewer Rate Increases

	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Sewer Rate Increase	55.0%	5.0%	5.0%	5.0%	5.0%
Cash Flow at Recommended Rates	\$274,766	(\$462,383)	(\$126,816)	\$73,283	\$68,070
Fund Balance at Recommended Rates	\$3,917,150	\$3,454,767	\$3,327,951	\$3,401,233	\$3,469,304
Minimum Recommended Reserve	\$2,392,871	\$2,569,587	\$2,591,144	\$2,613,563	\$2,636,879
Over / (Under) Minimum	\$1,524,279	\$885,180	\$736,807	\$787,670	\$832,424

Under the recommended rate increases, the City's sewer revenues would be able to support the forecasted operating and capital expenses of the sewer collection system. The following exhibit shows the forecasted operating and capital expenses of the system assuming that the City adopts the rate increases shown above.

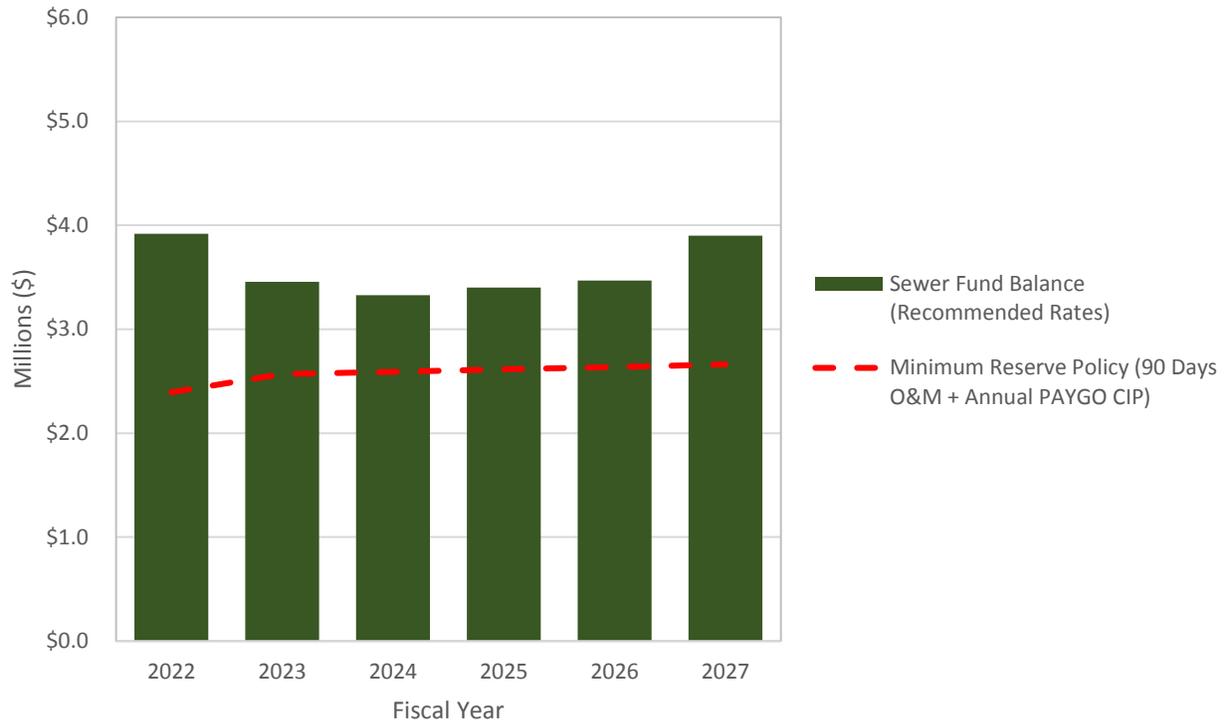
Exhibit E-5 Sewer Expenses vs. Revenues Forecast Under Recommended Rates



Under the recommended rate increases, the City's Sewer Fund would remain above the minimum recommended reserve balance, as shown in the following exhibit.

Executive Summary

Exhibit E-6 Sewer Fund Balance Under Recommended Rates



Rate Projections and Customer Impacts

The impact on the City's median residential and commercial customers of each of the alternatives are as follows:

Table E-7
Projected Monthly Customer Bills – Recommended Rates

Sample Customer	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Single-Family Residential	\$9.43	\$14.62	\$15.35	\$16.11	\$16.92	\$17.77
1" Meter	\$ Change	\$5.19	\$0.73	\$0.77	\$0.81	\$0.85
	% Change	55.0%	5.0%	5.0%	5.0%	5.0%
Commercial	\$75.13	\$116.45	\$122.27	\$128.39	\$134.81	\$141.55
2" Meter	\$ Change	\$41.32	\$5.82	\$6.11	\$6.42	\$6.74
	% Change	55.0%	5.0%	5.0%	5.0%	5.0%

The study found that the City's sewer utility is well managed both operationally and financially. A large one year increase followed by moderate rate increases are needed to support future cost increases related to system rehabilitation and replacement in accordance with the City's Sewer System Master Plan.

Section 1

PROJECT BACKGROUND AND SCOPE

Study Background

The City of Brea's (City) sewer collection system is managed by the City's Street & Sanitation Division within the Public Works Department. Included in this division is: Street & Sidewalk Maintenance; Street Lights and Signage; Downtown Maintenance; Street Sweeping; Storm Drain Maintenance; Sanitation; and Sewers. The collection system consists of about 134 miles of gravity sewer lines and three lift stations. Flows from these local sewers discharge into Orange County Sanitation District (OCSD) facilities for treatment and disposal. The City levies charges on its sewer customers in order to inspect, maintain, repair, and replace its sewer collection system.

The City engaged NewGen Strategies and Solutions, LLC (NewGen) to conduct a Sewer Rate Study (Study) to determine the revenue needs of the City's Sewer Enterprise Fund in order to support the costs associated with the implementation of the City's newly completed Sewer Master Plan (SSMP).

Study Objectives and Guiding Principles

The following principles, developed with input from City staff, were used to guide the rate study and were developed with input from City staff:

- The City's sewer utility must be financially self-supporting. It is assumed that the cost of operating and maintaining the sewer system will be supported by the sewer fees and charges collected from customers with no support or subsidy from other City revenues.
- The City's sewer rates shall be sufficient to ensure the funding of an appropriate level of system rehabilitation and replacement. It is assumed that the City will continually reinvest in the sewer system to replace assets as they reach the end of their useful lives.
- The City shall maintain appropriate reserves to provide for contingencies and unplanned expenses.
- The City's sewer rates shall be kept as low as possible over time. While it is possible to keep rates low for a period of time by not investing sufficiently in the maintenance of the sewer system, eventually the system will deteriorate and require substantial investments leading to the need for significant and immediate rate increases.

The above-stated guiding principles create conflicting goals and objectives for the City's system. Increasing asset investment creates upward pressure on the City's sewer rates. This creates affordability concerns, as the City's sewer rates do not depend on water consumption. The City's overall costs of providing sewer service are largely fixed (i.e. they do not vary substantially with changes in water demand). A carefully crafted financial plan and rate structure help mitigate these impacts. The results of this study maintain a balance between the increasing costs to run the City's sewer infrastructure and the need to maintain affordable service for City customers.

Section 1

Study Approach

NewGen's approach to developing sustainable sewer rates is governed by the view that the ideal rate structure must satisfy seven criteria:

- **Equity** requires that rates and charges result in no undue discrimination among customers or customer types. Although equity is normally related to the cost of service, it should be realized that customer acceptance will center on preconceived notions of equity and fairness.
- **Efficiency** refers to the ability of the rate schedule to encourage wise use of the resources devoted to the services that the utility provides. Efficiency considerations require that:
 - Rates should reflect the cost of providing service.
 - Rates should be similar for customers or customer types served under similar conditions.
 - Customers should be able to understand the rate schedules so that they can make rational decisions regarding their purchase of sewer service.
- **Revenue Adequacy** is the most fundamental of all considerations. Revenue Adequacy recognizes that rates must produce revenues sufficient to operate the system even if there are changes in demand for service.
- **Affordability** means that the recommended rates must result in bills that are realistically within the ability of customers to pay.
- **Sustainability** means that the objective of the rate methodology is to keep rates low over time, not to merely keep them low for the short-term by omitting or deferring needed expenses such as maintenance and funding of necessary cash reserves.
- **Administrative Simplicity** recognizes that limits must be placed on the complexity of the rate schedules to keep them easy to administer and understandable to the public.
- **Legal and Regulatory Compliance** is a prime consideration because rate structures must incorporate applicable local, state, and federal statutes, as well as any inter-jurisdictional agreements.

The application of these criteria should recognize that a rate schedule is a form of public policy statement, setting forth those values that the City considers important. Rate structures must be tailored to community perceptions, realities, and values.

Fiscal Year

The City operates on a fiscal year beginning July 1st and ending on June 30th each year. All years shown in this report refer to the fiscal year ending that year. For example, 2022 refers to the fiscal year beginning July 1, 2021 and ending June 30, 2022.

Section 2

SEWER SYSTEM REVENUE REQUIREMENTS

The first step of the rate study is to compile the costs of owning and operating the City’s sewer utility system. The three cost components of the City’s sewer system are: Operating and Maintenance; Capital Improvements; and Debt Service (both existing and future). These three cost components total to the amount needed each year to run the sewer system. While the study is based on the latest available actual data, there are several major assumptions that are included in the study’s cost projections.

Major Study Assumptions

In order to project the operating, debt service, and capital expenses of the City’s sewer system, several major assumptions must be made. NewGen’s assumptions are conservative to ensure that the study’s recommendations reflect a reasonable projection of the costs of the City’s system.

Operating Budget Escalation Factors

NewGen’s cost projections are based on the latest available actual and budgeted data. To reasonably project future costs, escalation and inflation factors must be applied to the City’s budget line items. NewGen’s financial model includes the following operating and maintenance budget line item inflation factors in Table 2-1. NewGen used conservative estimates related to the three items projected to increase in the future.

Table 2-1
Operating Budget Escalation Factors

	Change Per Year
General Inflation	4.00%
Salaries	4.00%
Benefits	4.00%

Due to compounding, NewGen projects that the Sewer Fund operating budget will increase 13.0% per year over the five-year projection period, driven by the addition of two new Full-Time Employees (FTEs) in FY 2023 and the assumption that the Sewer Fund will begin paying the City for services.

Minimum Required Sewer Fund Cash Balance

Maintaining a minimum Sewer Fund cash balance is an essential component of the proper financial management of the City’s sewer system. The wise management of resources and maintenance of a reasonable cash balance allows the City to be responsive to emergencies and to plan for long-term sustainability. As a part of the sewer rate study, NewGen developed a recommendation regarding the minimum fund balance reserves that are appropriate for the City’s sewer utility fund. There are two components to the study’s recommended minimum fund balance.

Section 2

- **Operating Reserve** – The minimum operating reserve balance shall be 90 days of annual Operating and Maintenance (O&M) expenses.
- **Capital Reserve** – The minimum capital reserve balance shall be 365 days of average annual cash capital spending over a ten-year period.

The minimum reserve projection is shown below in Table 2-2.

Table 2-2
Minimum Sewer Fund Cash Reserve Recommendation

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
O&M Reserve	\$362,208	\$538,924	\$560,481	\$582,900	\$606,217	\$630,465
Capital Reserve	\$2,030,663	\$2,030,663	\$2,030,663	\$2,030,663	\$2,030,663	\$2,030,663
Reserve Recommendation	\$2,392,871	\$2,569,587	\$2,591,144	\$2,613,563	\$2,636,879	\$2,661,128

The City's current fiscal policies state: "The City will maintain adequate reserves in each of the enterprise funds to protect these essential City programs. Urban Runoff Fund reserves, Water Fund reserves and Sewer Fund reserves shall have a minimum operating reserve equal to three months of operating expenditures and a capital reserve equal to one year of capital expenditures". For the FY 2022-23 Budget, the City has reserved approximately \$476,000 in operating reserves and approximately \$1.0 million in capital reserves. The amounts are contingent upon actual revenues received and expenditures spent for the year.

The minimum cash balance policy drives the financial plan detailed in this report. Rates and fees are set in order to cover the operating, debt service, and capital needs of the system, as well as to maintain the minimum cash balance shown above. If at any time the projected rates in a given year would not sustain the minimum cash balance in the next fiscal year, it is assumed that rates must be increased to achieve the minimum required balance.

Operating and Maintenance Expenses

The operating and maintenance (O&M) expenses of the City's sewer system are organized into several categories:

- Employee Costs
- Operating Costs
- Overhead Costs
- City Costs

Employee costs are related to salaries, benefits, training, and other employee-related expenses. Overhead costs are allocations of City costs to the Sewer Fund for City-wide costs such as vehicles, technology, retiree benefits, and insurance. Operating costs are related to supplies and equipment necessary to maintain, rehabilitate, and repair the sewer system.

Additional Full-Time Employees

NewGen's study includes the addition of two (2) full-time employees (FTEs) to the Sewer Fund budget beginning in FY 2023 at a total cost of \$177,440. This cost is escalated in future years based on NewGen's overall study assumptions. These positions will be shared with the Urban Runoff Fund.

City Costs

As a part of the study, NewGen was tasked with developing appropriate cost allocations to the Sewer Fund for the use of City property and right-of-way (ROW). NewGen's O&M cost forecast includes two costs related to the Sewer Fund's use of City property and ROW.

- Office Space** – NewGen determined a reasonable cost per square foot of office space comparable to the utility billing counter in the commercial market in Brea based on a survey of fifteen commercial properties. The average cost per square foot is \$2.21, and the City's utility billing counter and related office space is 720 square feet. The Sewer Fund splits this cost with other City services such as water, refuse, urban runoff, and street sweeping. The Sewer Fund allocation of the monthly cost is 9.0%, resulting in an annual office space cost of \$1,721 (FY 2022). This cost is escalated at 2.4% per year thereafter.
- City Right-of-Way** – The City's sewer utility occupies about 134 miles of the City's underground ROW. NewGen determined that a reasonable cost of this ROW is 50% of the total ROW cost, with the other 50% being the above-ground ROW unoccupied by the City's sewer utility pipes. Assuming a 12-inch clearance on both sides of the City sewer pipe and given the various diameters of pipe, the City's buried sewer infrastructure occupies approximately 1.9 million square feet of City ROW. NewGen calculated the market value of the City's total ROW to be \$7.96. At a 3.0% annual lease rate, the Sewer Fund's use of City ROW was determined to be \$460,284 (FY 2022). This cost is escalated at 2.4% per year in future years.

The latest available O&M budget is the FY 2022 requested budget. The FY 2022 requested operating budget plus the allocations for City office space and ROW is shown in Table 2-3 below.

Table 2-3
Projected Operating and Maintenance Expenses

	Budget FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Projected FY 2027
Employee Costs	\$907,559	\$1,121,302	\$1,166,154	\$1,212,800	\$1,261,312	\$1,311,764
Overhead Costs	\$368,490	\$383,230	\$398,559	\$414,501	\$431,081	\$448,324
Operating Costs	\$192,905	\$200,621	\$208,646	\$216,992	\$225,672	\$234,698
City Costs	\$ -	\$480,485	\$499,704	\$519,693	\$540,480	\$562,099
Total O&M Expenses	\$1,468,954	\$2,185,637	\$2,273,063	\$2,363,985	\$2,458,545	\$2,556,887
<i>% Change</i>		48.79%	4.00%	4.00%	4.00%	4.00%

The rates and fees developed in this study are sufficient to cover the increasing operating and maintenance costs of the sewer utility.

Existing Debt Obligations

The City has no debt obligations related to the Sewer Fund.

Section 2

Capital Improvement Plan

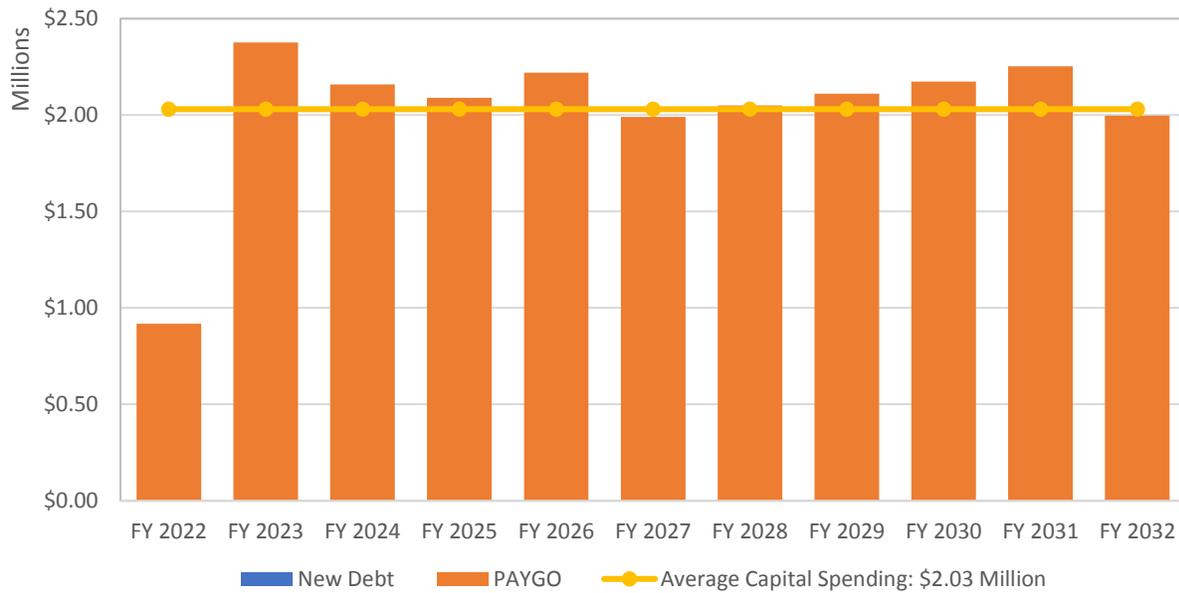
A major component of owning a sustainable sewer utility is the planning for the rehabilitation and replacement of the City's assets. The City's Capital Improvement Program (CIP) is a detailed list of projects including when they are planned to be completed and how much they are projected to cost. NewGen's study includes funding for all CIP projects. The City can either pay cash for projects as they are completed (referred to as PAYGO funding), or the City may issue new debt to finance projects over a long term, typically 20 to 30 years. Table 2-4 details the projects included in the City's Master Plan adopted in November 2021. All projects are assumed to be PAYGO funded – that is, the City will outlay cash for those projects in the year in which they are planned without taking on any additional debt.

Table 2-4
FY 2022 – FY 2027 Capital Projects

Project	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Sewer Relining	\$300,000					
South Brea Sewer	\$617,564					
Briarwood Lift Station		\$1,035,150				
Brea Creek Bypass Line			\$795,675			
Cleaning & Inspection			\$19,839			
Randolph Ave & Imperial Hwy				\$704,809		
Carbon Canyon Phase 1					\$794,328	
Carbon Canyon Phase 2						\$521,673
Condition Improvement Program		\$1,304,499	\$1,343,634	\$1,383,943	\$1,425,461	\$1,468,225
New Vehicle		\$37,500				
Total Planned CIP	\$917,564	\$2,377,149	\$2,159,148	\$2,088,752	\$2,219,789	\$1,989,899

Exhibit 2-5 shows the annual variation of the City's planned CIP spending and the funding source assumed to develop the study's financial projections.

Exhibit 2-5 Ten-Year Capital Plan Summary by Funding Source



The financial plan and rates developed during the study are projected to fully recover the cost of the above-stated capital plan.

New Total Debt Service Projections

The City does not plan on issuing new debt to support sewer utility capital projects.

Miscellaneous Non-Rate Revenues

The City accounts for certain Sewer Fund revenues that are unrelated to the various retail rates and fees charged to customers. These non-rate revenues may be highly volatile from year to year, and the City only budgets for a conservative amount each year. In order to determine the annual revenue needs of the sewer system, these non-rate revenues need to be taken into account. There are three non-rate revenues that NewGen investigated as a part of the study – Sewer Connection Fees, Interest Income, and Other. NewGen’s forecast assumes that the City does not adopt a Sewer Impact Fee.

Projected Miscellaneous Non-Rate Revenues

The following Table 2-6 shows the revenues that are credited to the sewer utility but are not dependent on the rates charged to system users.

Section 2

Table 2-6
Sewer Fund Non-Rate Revenues

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Sewer Connection Fee	\$6,995	\$7,554	\$7,806	\$8,084	\$8,333	\$8,585
Interest Income	\$86,893	\$90,369	\$93,983	\$97,743	\$101,653	\$105,719
Other	\$20,740	\$21,570	\$22,432	\$23,330	\$24,263	\$25,233
Total Misc. Revenue	\$114,628	\$119,493	\$124,222	\$129,157	\$134,249	\$139,537

In accordance with NewGen's approach to developing future projections, all miscellaneous revenues are projected to increase modestly in line with inflation through FY 2027.

Revenue Requirement Projection

Based on the latest available operating, debt service, and capital plan data as well as the methodologies and assumptions detailed above, NewGen developed a net revenue requirement forecast for the City's sewer system, shown in Table 2-7.

Table 2-7
Sewer Fund Net Revenue Requirement Projection

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Operating Expenses	\$1,468,954	\$2,185,637	\$2,273,063	\$2,363,985	\$2,458,545	\$2,556,887
Existing Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
New Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Cash Capital	\$917,564	\$2,377,149	\$2,159,148	\$2,088,752	\$2,219,789	\$1,989,899
Total Rev. Req.	\$2,386,518	\$4,562,786	\$4,432,211	\$4,452,737	\$4,678,334	\$4,546,785
Less: Non-Rate Rev.	(\$114,628)	(\$119,493)	(\$124,222)	(\$129,157)	(\$134,249)	(\$139,537)
Net Rev. Req.	\$2,271,890	\$4,443,294	\$4,307,989	\$4,323,581	\$4,544,085	\$4,407,248

The net revenue requirement is the basis upon which all rates and fees are calculated for the City's system. Although the net revenue requirement varies from year to year, the financial plan developed during the study takes a long-term perspective in order to maintain stable rates and sufficient reserves.

Before a financial plan can be developed for the City's sewer utility, an analysis of the system's customer base must be completed. The City's sewer customer base defines the number of accounts that can be charged to generate revenues to fund the net revenue requirement. The next section of this report details the City's sewer customers.

Section 3

SEWER CUSTOMERS

The City has several distinct types of sewer customers:

- Single Family Residential
- Multi-Family Residential
- Commercial
- Single Family Outside
- Brea Olinda Unified School District (BOUSD)
- Government

The latest full year of customer data available for the study is FY 2021.

Sewer Customers

The City serves about 17,800 sewer connections with each multi-family unit counted individually. The City's current rate structure includes a monthly Customer Charge and a volumetric-based fixed fee for some large commercial customers. Single Family Residential retail customers make up a majority of the City's sewer users.

The number of City sewer customers by meter size is shown in Table 3-1 below.

Table 3-1
FY 2021 Sewer Customers

Meter Size	Single Family Residential	Single Family (Outside City)	Multi-Family Residential	Commercial	BOUSD	Government
5/8"	2,983		45	49		1
3/4"	125					
1"	8,015		312	410	2	10
1 1/2"	1		59	79		1
2"	16	1	2,563	371	4	19
3"	1	1	778	0	3	1
4"			1,161	19	5	1
6"			321	9		3
8"			198	12		
10"				5		
12"			206	9		
Total	11,140	2	5,644	963	14	36

The number of City sewer customers is assumed to remain constant over the five-year projection period with the exception of single-family residential customers, which are projected to increase over the five years according to planned developments within the City's sewer service area.

Section 4

FINANCIAL PLAN AND RECOMMENDED RATES

Financial Projections Under Current Rates

NewGen developed cash flow and cash balance projections assuming the revenue requirements detailed in Section 2 of this report and that the City does not increase any sewer rates or fees. This establishes a baseline projection to which revenue increase alternatives can be compared.

In order to project revenues under the current sewer rates and fees, NewGen compiled each rate and fee charged by the City in FY 2022. The City's FY 2022 rates are summarized below.

FY 2022 Sewer Rates

The City's current (FY 2022) sewer rates consist only of monthly fixed charges that differ by customer type and meter size. Large (3"+ meter size) Commercial customers are billed based on wastewater flow per Month (wwf/m) calculations that estimate the amount of water that enters the City's sewer system. NewGen relied on the City's billing database to assign wwf/m to these customers. Multi-Family customers are billed per unit, regardless of meter size. Table 4-1 details the City's FY 2022 sewer rates.

Table 4-1
FY 2022 Sewer Rates

Meter Size	Single-Family Residential	Single-Family (Outside City)	Multi-Family Residential ¹	Commercial	BOUSD	Government
5/8"	\$9.43		\$5.91	\$21.01		\$8.31
3/4"	\$9.43		\$5.91	\$21.01		\$8.31
1"	\$9.43	\$14.33	\$5.91	\$21.01	\$8.72	\$8.31
1 1/2"	\$9.43	\$30.69	\$5.91	\$75.13	\$0.00	\$46.76
2"	\$20.18	\$31.92	\$5.91	\$75.13	\$36.48	\$46.76
3"	\$20.18	\$268.01	\$5.91		\$63.76	\$310.35
4"	\$20.18		\$5.91		\$377.06	\$310.35
6"	\$20.18		\$5.91			\$310.35
8"	\$20.18		\$5.91			\$310.35
10"	\$20.18		\$5.91			\$310.35
12"	\$20.18		\$5.91			\$310.35

¹ Per Unit

Table 4-1
FY 2022 Sewer Rates

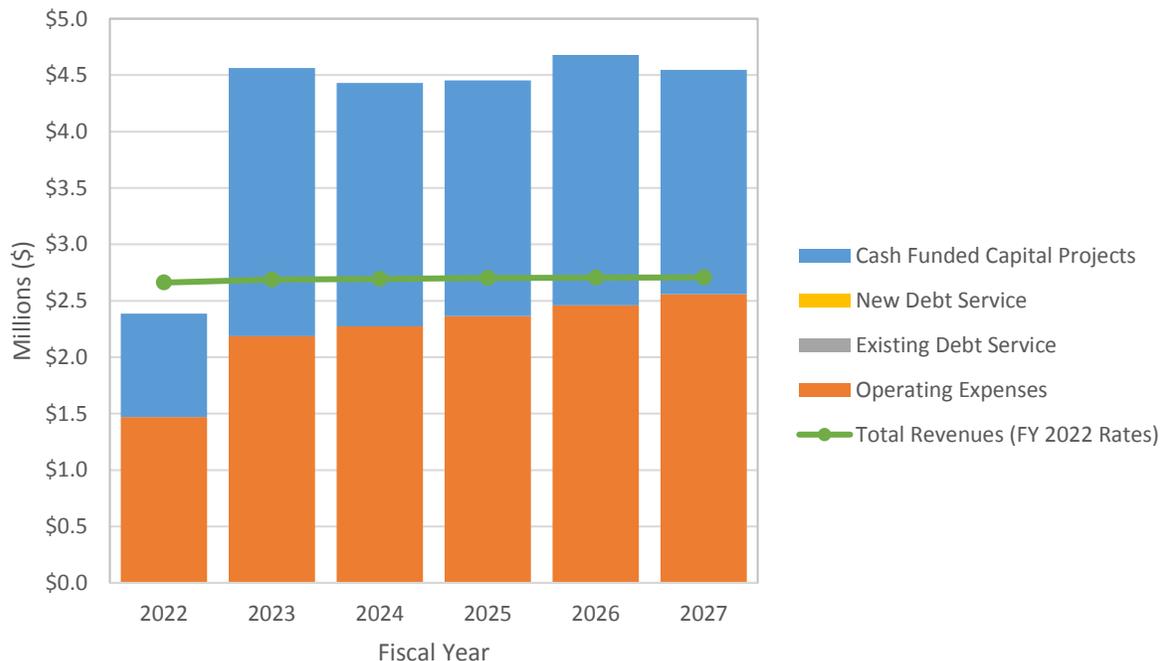
Meter Size	Single-Family Residential	Single-Family (Outside City)	Multi-Family Residential ¹	Commercial	BOUSD	Government
3"+						
0 - 100 wwf/m				\$133.98		
101 - 200 wwf/m				\$192.87		
201 - 400 wwf/m				\$444.64		
401 - 700 wwf/m				\$605.76		
701+ wwf/m				\$1,335.90		

There are some Single-Family customers that are grandfathered into a lifeline sewer rate of 80% of the Single-Family rate. The City no longer offers this program, and therefore NewGen did not calculate future lifeline rates. It is assumed that those accounts that currently qualify for the Sewer Lifeline Rate will continue to do so until those accounts change ownership.

Cash Flow and Fund Balance Projections Under Current Rates

The revenue generated by the FY 2022 rates alone cannot sustain the City Sewer Fund's annual revenue requirements in any of the next five fiscal years (FY 2022 – FY 2027). The expenses shown in the following charts include the projected operating, existing debt, new debt, and cash funded capital projects discussed in Section 2 of this report. The projected revenues assume that the City does not increase any sewer rates or fees in any fiscal year. The projected revenues and expenses are shown in Exhibit 4-2.

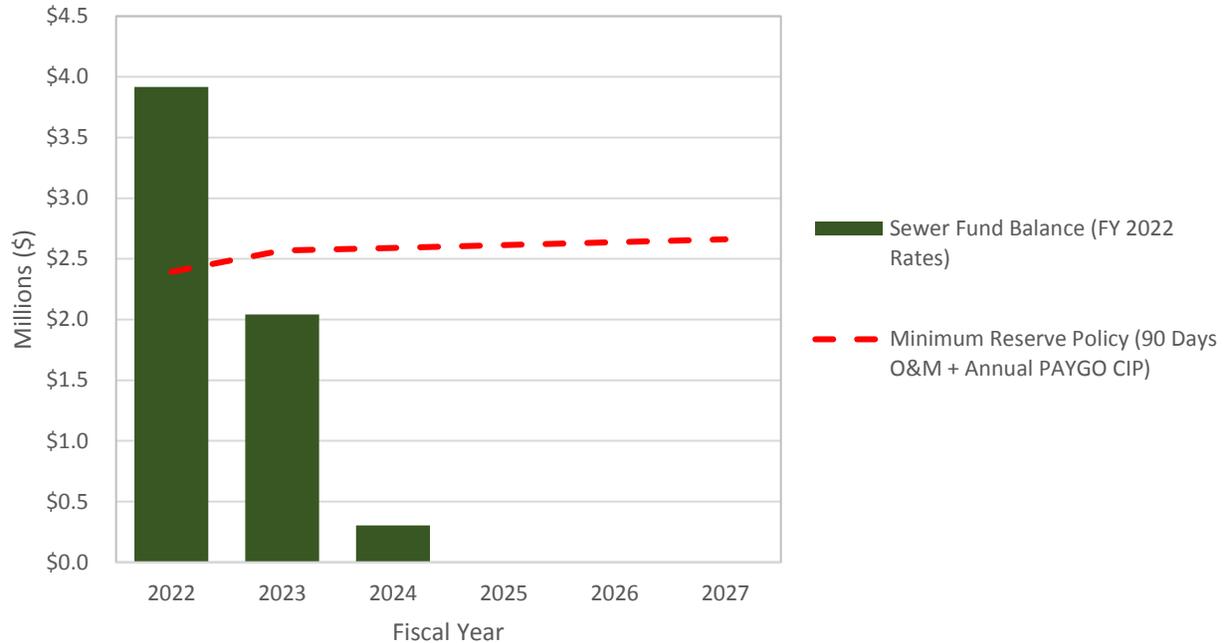
Exhibit 4-2 Expenses vs. Revenues Forecast Under Current FY 2022 Rates



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If the City were not to raise rates in any of the next five years, then current reserves would need to be relied upon to support the sewer system's capital plan. However, the projected cash deficits would nearly exhaust the sewer utility's cash balance as soon as FY 2024 as shown in Exhibit 4-3.

Exhibit 4-3 Sewer Fund Cash Balance Forecast Under Current FY 2022 Rates



The current revenues generated by the City's FY 2022 sewer rates and the City's Sewer Fund cash reserves cannot support the projected operating, capital, debt service, and reserve requirements of the sewer system. A large one-time increase followed by incremental rate increases are necessary to support the City's sewer operating and capital needs and maintain adequate Sewer Fund reserves.

Based on the expenses projected in Section 2 of this report, the City's sewer customers detailed in Section 3, and the City's FY 2022 sewer rates detailed previously in this section, NewGen's rate study has determined that rate increases are necessary to sustain the City's sewer system.

Recommended Rate Increases

In order to increase revenues that will sustain the sewer system, NewGen recommends the following rate increases for the City's sewer rates.

Table 4-4
Recommended Sewer Rate Increases

	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Sewer Rate Increase	55.0%	5.0%	5.0%	5.0%	5.0%
Cash Flow at Recommended Rates	\$274,766	(\$462,383)	(\$126,816)	\$73,283	\$68,070
Fund Balance at Recommended Rates	\$3,917,150	\$3,454,767	\$3,327,951	\$3,401,233	\$3,469,304
Minimum Recommended Reserve	\$2,392,871	\$2,569,587	\$2,591,144	\$2,613,563	\$2,636,879
Over / (Under) Minimum	\$1,524,279	\$885,180	\$736,807	\$787,670	\$832,424

Assuming that the City increases its sewer rates consistent with the table above, the result is that the City is able to fund the system's projected operating, capital, and debt service expenses while also maintaining the recommended reserves.

Projected Rates

NewGen recommendations begin in FY 2023. If the City adopts the recommended rate increases each year from FY 2024 through FY 2027, then the City's sewer rates would be as shown in Table 4-5.

Table 4-5
Recommended Sewer Rates

Customer Type	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
<u>Single-Family Residential</u>						
5/8" - 1 1/2"	\$9.43	\$14.62	\$15.35	\$16.11	\$16.92	\$17.77
2" and Greater	\$20.18	\$31.28	\$32.84	\$34.49	\$36.21	\$38.02
<u>Single-Family Outside</u>						
2"	\$31.92	\$49.48	\$51.95	\$54.55	\$57.27	\$60.14
3"	\$268.01	\$415.42	\$436.19	\$458.00	\$480.90	\$504.94
<u>Multi-Family Residential</u>						
Per Unit	\$5.91	\$9.16	\$9.62	\$10.10	\$10.60	\$11.13
<u>Commercial</u>						
5/8" - 1"	\$21.01	\$32.57	\$34.19	\$35.90	\$37.70	\$39.58
1 1/2" - 2"	\$75.13	\$116.45	\$122.27	\$128.39	\$134.81	\$141.55
0 - 100 wwf/m	\$133.98	\$207.67	\$218.05	\$228.96	\$240.40	\$252.42
101 - 200 wwf/m	\$192.87	\$298.95	\$313.90	\$329.59	\$346.07	\$363.37
201 - 400 wwf/m	\$444.64	\$689.19	\$723.65	\$759.83	\$797.83	\$837.72
401 - 700 wwf/m	\$605.76	\$938.93	\$985.87	\$1,035.17	\$1,086.93	\$1,141.27
701+ wwf/m	\$1,335.90	\$2,070.65	\$2,174.18	\$2,282.89	\$2,397.03	\$2,516.88

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**Table 4-5
Recommended Sewer Rates**

Customer Type	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
<u>BOUSD</u>						
1"	\$8.72	\$13.51	\$14.18	\$14.89	\$15.64	\$16.42
2"	\$36.48	\$56.55	\$59.38	\$62.35	\$65.46	\$68.74
3"	\$63.76	\$98.83	\$103.77	\$108.96	\$114.41	\$120.13
4"	\$377.06	\$584.45	\$613.67	\$644.35	\$676.57	\$710.40
<u>Government</u>						
5/8" - 1"	\$8.31	\$12.88	\$13.52	\$14.20	\$14.91	\$15.66
1 1/2" - 2"	\$46.76	\$72.48	\$76.10	\$79.90	\$83.90	\$88.09
3" - 6"	\$310.35	\$481.04	\$505.09	\$530.34	\$556.86	\$584.70

Customer Bill Impact of Increased Rates

Table 4-6 shows the customer bill impact for two typical customers if the City were to adopt the rates shown in Table 4-5.

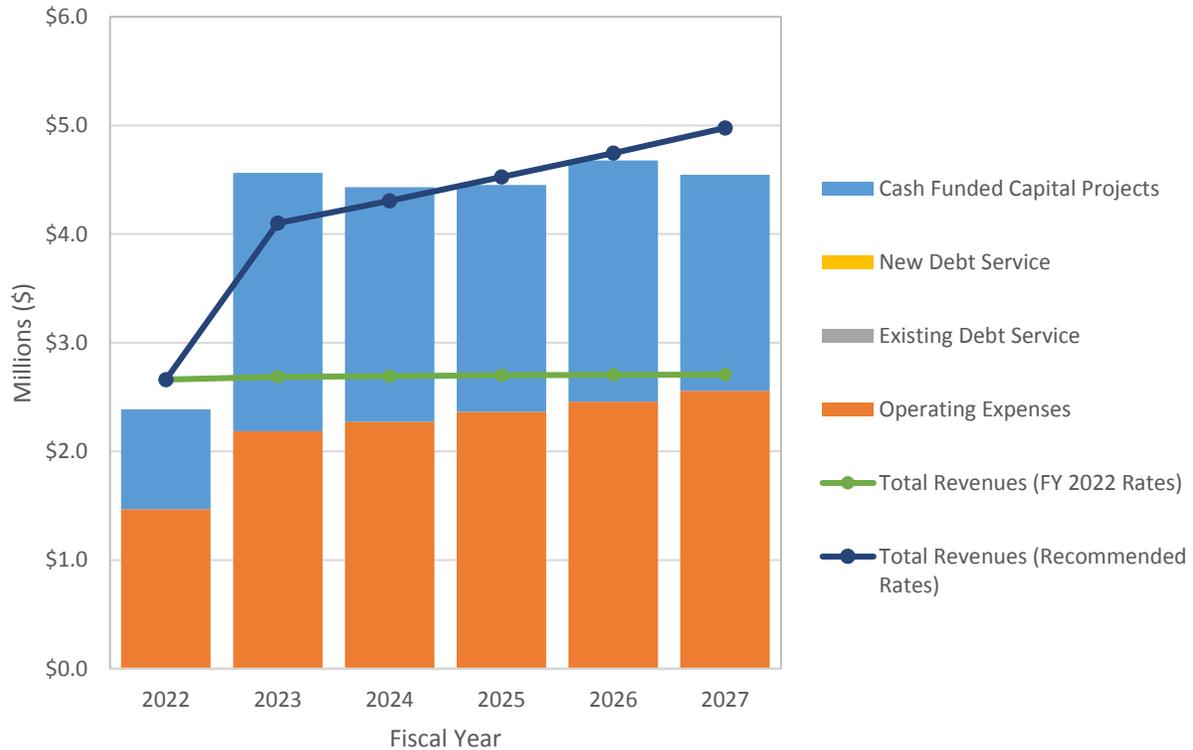
**Table 4-6
Projected Monthly Customer Bills – Recommended Rates**

Sample Customer	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Single-Family Residential	\$9.43	\$14.62	\$15.35	\$16.11	\$16.92	\$17.77
1" Meter	\$ Change	\$5.19	\$0.73	\$0.77	\$0.81	\$0.85
	% Change	55.0%	5.0%	5.0%	5.0%	5.0%
Commercial	\$75.13	\$116.45	\$122.27	\$128.39	\$134.81	\$141.55
2" Meter	\$ Change	\$41.32	\$5.82	\$6.11	\$6.42	\$6.74
	% Change	55.0%	5.0%	5.0%	5.0%	5.0%

Cash Flow Under Recommended Rate Increases

Exhibit 4-7 shows the projected expenses and revenues under the recommended rate increase plan.

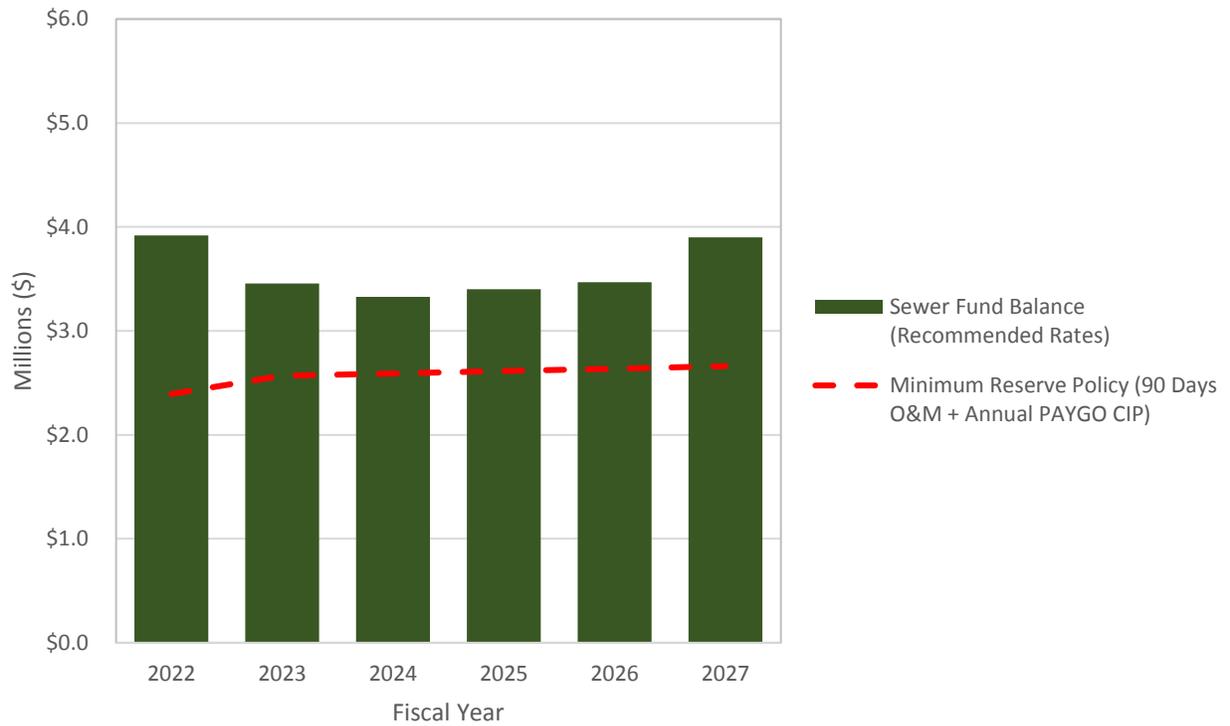
Exhibit 4-7 Expenses vs. Revenues Under Recommended Rate Increases



The revenues projected in FY 2022 through FY 2027 under the Recommended Rate Increases fully fund the annual revenue requirement and add to the City's cash reserves needed to support the system throughout the five-year projection period. The large one-year increase allows revenues to nearly keep up with expected operating expenses and cash funded capital projects. After the one-year increases, expenses and capital will be funded through consistent small increases.

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Exhibit 4-8 Projected Sewer Fund Cash Balance Under Recommended Rates



The City will draw down on Sewer Fund reserves in the near term but is still able to support the system's operations and capital improvements.

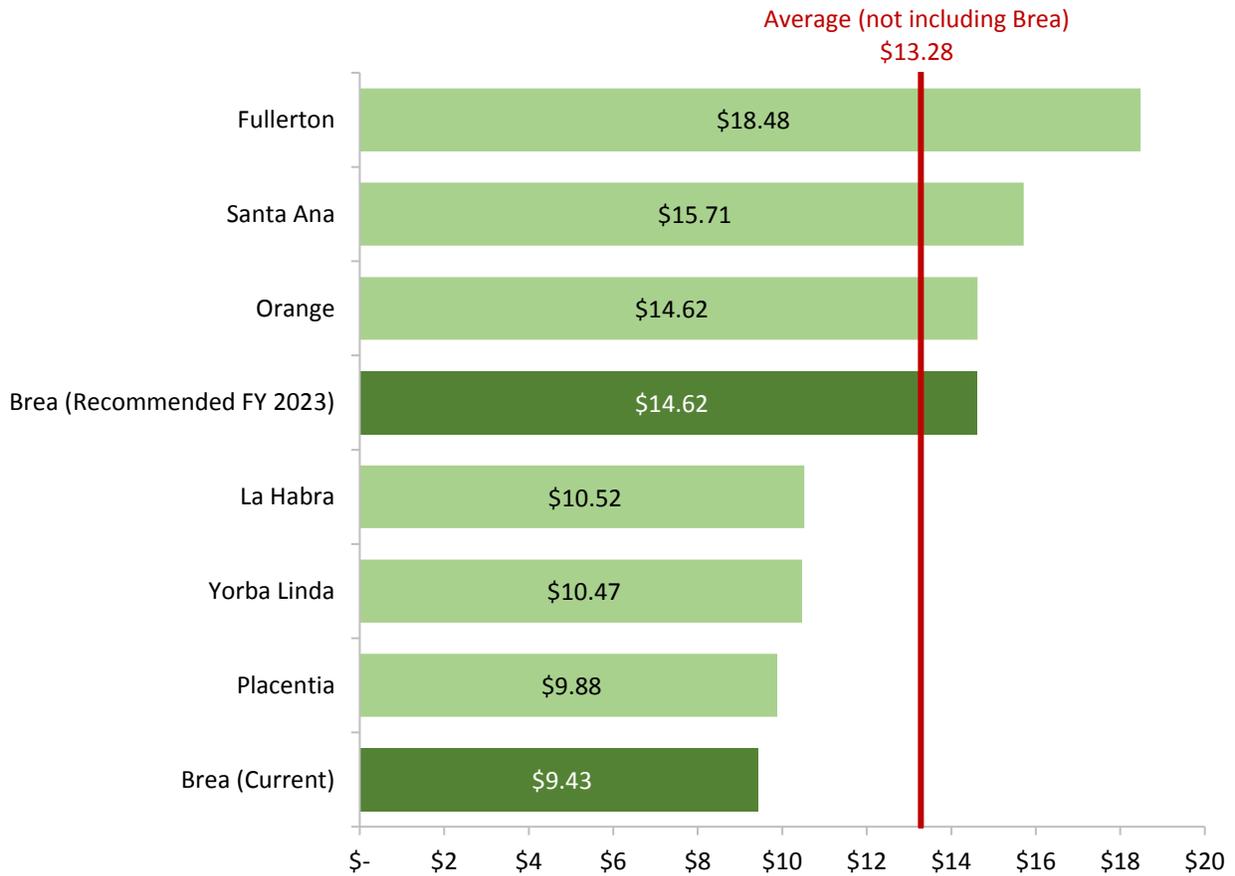
Section 5 REGIONAL BILL COMPARISON

A major consideration when developing any utility financial plan is the impact on the system’s customer bills. The recommendations detailed in this report will result in changes to customer bills, and therefore cost increases for some of the system’s customers. This section will show the impact of NewGen’s recommendations on the City’s customers and a comparison of a similar customer’s bill in surrounding utilities.

Regional Bill Comparison

The following exhibit shows a comparative monthly sewer bill for a Single-Family Residential customer (1” meter) in surrounding water service areas.

Exhibit 6-1 Sample Customer Bill, 1” Meter



While regional comparisons may provide some context, the ranking of individual customer bills is not a consideration when developing a financial plan and rate structure. The City’s cash needs are independent of the rates in the surrounding jurisdictions, and this comparison is provided for information only.





THANK YOU!



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