



City of Arts & Innovation

Mobility & Infrastructure Committee Memorandum

**TO: MOBILITY AND INFRASTRUCTURE
COMMITTEE**

DATE: JUNE 12, 2025

FROM: PUBLIC WORKS DEPARTMENT

WARDS: ALL

**SUBJECT: SEWER ENTERPRISE FUND AND SEWER SERVICE RATE PLAN
ALTERNATIVES**

ISSUE:

Receive a report on the Sewer Enterprise Fund and provide direction on sewer service rate plan alternatives.

RECOMMENDATION:

That the Mobility and Infrastructure Committee receive a report on the Sewer Enterprise Fund and provide direction on sewer service rate plan alternatives.

LEGISLATIVE AND CITY POLICY BACKGROUND:

Riverside's Water Quality Control Plant (RWQCP)

Pursuant to the Clean Water Act and California Water Code, the Santa Ana Regional Water Quality Control Board renewed the Waste Discharge and Producer/Use Reclamation Requirements for the City of Riverside's Water Quality Control Plant ("NPDES Permit") on November 1, 2013. The Permit requires that discharges of treated water from the RWQCP to the Santa Ana River meet the treatment standards and quality requirements (effluent limits) specified therein. Screening, sludge, and other solids removed from the treatment process must also be treated and disposed of per regulations. The permit requires the City to comply with its requirements and properly operate and maintain the RWQCP at all times.

In 2018 the City applied to renew its NPDES permit and is awaiting its revised permit to be issued. Staff expects the new permit will include more onerous monitoring, testing, and reporting requirements along with more stringent effluent limits which will have a financial and operational impact on the plant.

Sewer Collection System

On December 6, 2022, the State Water Resources Control Board adopted renewed statewide requirements for the operation and maintenance of systems designed to convey sewage. The "General Order" revised the existing 2006 regulation and requires the City to "proactively operate and maintain a resilient sewer system" and "develop and implement a plan to facilitate adequate local funding and management of its system," including the "prioritization of system repairs and

the implementation of current standard industry practices across equipment, technologies, and strategies.” Moreover, the City is required to routinely evaluate the condition and capacity of the sewer system, prioritize corrective actions, and develop a capital improvement program (CIP) to address deficiencies. The CIP must include projects, construction timeline including completion dates, funding sources, and joint coordination across agencies to complete projects.

Sewer Enterprise Fund Reserve Policy

In November 2016, the City Council adopted a Sewer Enterprise Fund Reserve Policy (Reserve Policy) to establish guidelines ensuring the fiscal stability of the Sewer Enterprise Fund and provide guidance to staff on the financial management of the fund.

BACKGROUND:

The City of Riverside Public Works Department, Sewer Division, is responsible for the collection and treatment of wastewater for over 100,000 customers within City limits. The City of Riverside’s wastewater collection system, the network of pipes which convey wastewater to the Riverside Water Quality Control Plant (RWQCP), consist of over 800 miles of gravity sewers, 400 miles of laterals, and 19 wastewater lift stations. By way of capacity right contracts, the City also provides wastewater treatment for the Rubidoux, Edgemont, and Jurupa Community Services Districts (CSDs) and for the unincorporated community of Highgrove. Flows to the Water Quality Control Plant are distributed across City residential, City commercial, and Community Service District contractual contributions at 68%, 12%, and 20% respectively.

In 2019, the Sewer Division completed an update to its Integrated Wastewater Master Plan. The Master Plan was prepared to evaluate the City's collection system and some of the unit processes, make recommendations for future expansions and rehabilitation of the facilities, and develop a Capital Improvement Program (CIP) and rate structures to pay for the identified projects. The developed CIP is a component of the Sewer Master Plan and is based on a planning period through 2037. Specifically, the Master Plan includes analysis of the collection system and RWQCP to have a Master Plan that:

1. Includes a CIP to serve the needs of existing and future users through 2037
2. Complies with regulatory requirements.
3. Does not overburden rate payers.
4. Is equitable to the development community.
5. Develops a rate structure to fund the CIP.
6. Recommends necessary capacity, maintenance, staffing, and funding modifications for the collection system and treatment facility to continue safe and reliable service throughout the planning period and ensure the safety of the community and the environment.

The average age of the sewer collection system is 50 years old, with 55% of the system over 50 years old. However, fifty-seven miles of sewer pipe, currently in service, is over 80 years old.

To date approximately \$580M in CIP projects from the master plan remain uncompleted.

Rate History from 2014 to Present

In May 2014, the City Council approved a sewer service and capacity rate structure for residential, commercial, institutional, and commercial customers through June 30, 2019 and directed staff to review the rate structure annually and report back to City Council. The plan resulted in 5-years of annual rate increases of 8.5% for FY 2014/15 through FY 2018/19. Four of the five rate increases were implemented which allowed for the funding of Phase I Expansion Project at the RWQCP,

and other plant and collection system repair and rehabilitation projects.

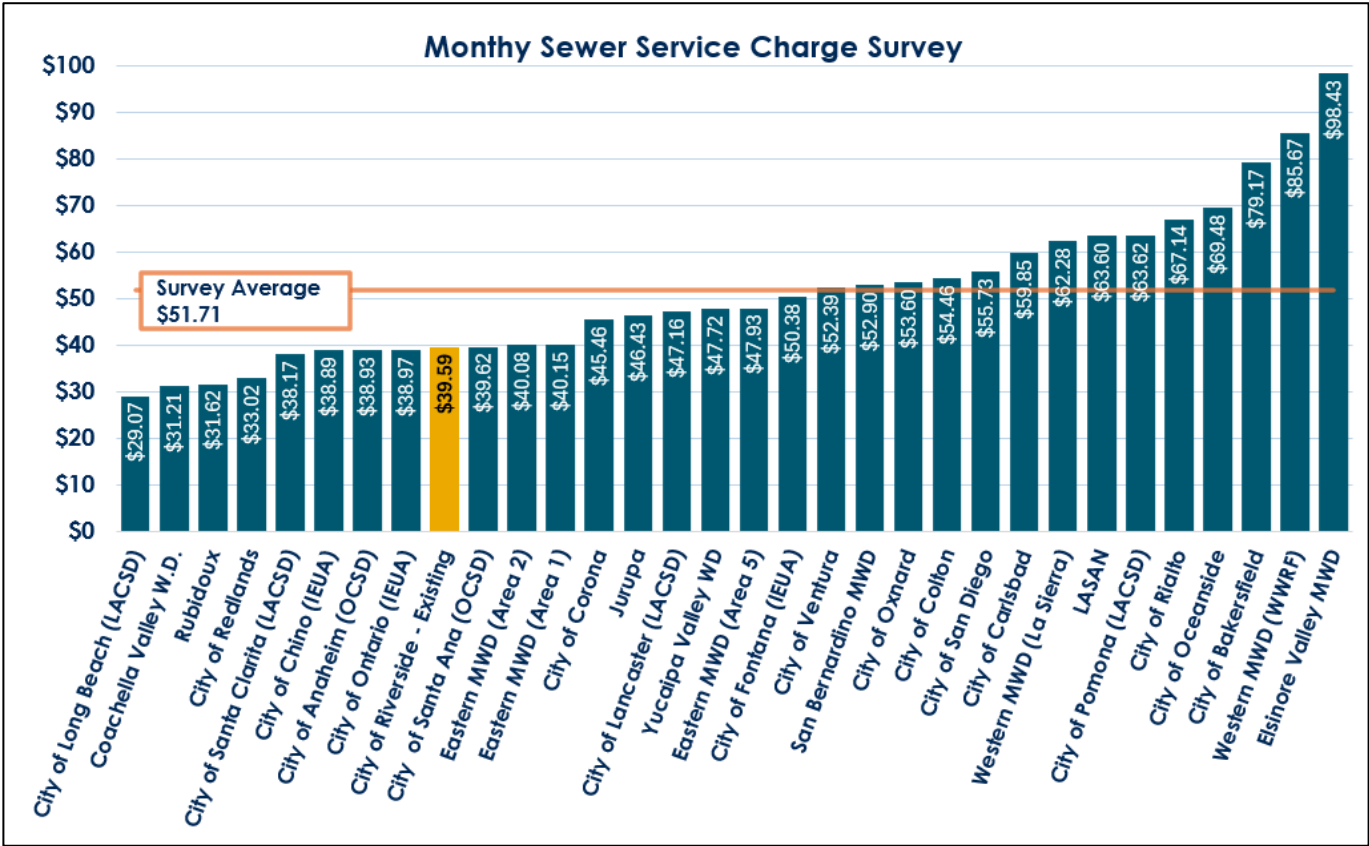
In December 2017, the City Council received an update on the Sewer Enterprise Fund, implementation of the 2014 sewer rate structure, and current Sewer reserves. The City Council considered the financial position of the Sewer Enterprise Fund, favorable revenues, savings, reserves, and unanimously voted to pause the remaining adopted 8.5% sewer service rate increase planned for implementation on July 1, 2018.

Between 2018 and 2025, there have not been any sewer rate increases as shown on Table 1.

Table 1: Sewer Rate History Since 2014											
Sewer Service	7/1/14	7/1/15	7/1/16	7/1/17	7/1/18	7/1/19	7/1/20	7/1/21	7/1/22	7/1/23	7/1/24
Adopted Rate Increase	8.5%	8.5%	8.5%	8.5%	8.5%	-	-	-	-	-	-
Implemented Rate Increase	8.5%	8.5%	8.5%	8.5%	0%	0%	0%	0%	0%	0%	0%

Chart 1 below compares Riverside’s current sewer rate to agencies across southern California.

Chart 1 – Comparison of Residential Sewer Service Rates



In October 2022 the City Council received an update on the wastewater financial model. To assist staff in managing the Sewer Enterprise Fund, it formally defined the “Reserve Goal” as the Reserve Policy Minimum Reserve Target plus 10%. Additionally, the City Council authorized the use of funds above the Reserve Goal and settlement funds for capital improvement projects through Fiscal Year 2026/27.

Capital Improvement Accomplishments from Prior Rate Plan, Reserves, and Settlement Funds

Since 2018, and in later years supported by City Council's authorization to access reserves and settlement funds, the Sewer Division has worked to identify the most critical projects needing to move forward to address safety, treatment capacity, and portions of the collections system with significant defects. Table 2 summarizes notable capital improvements completed since 2018.

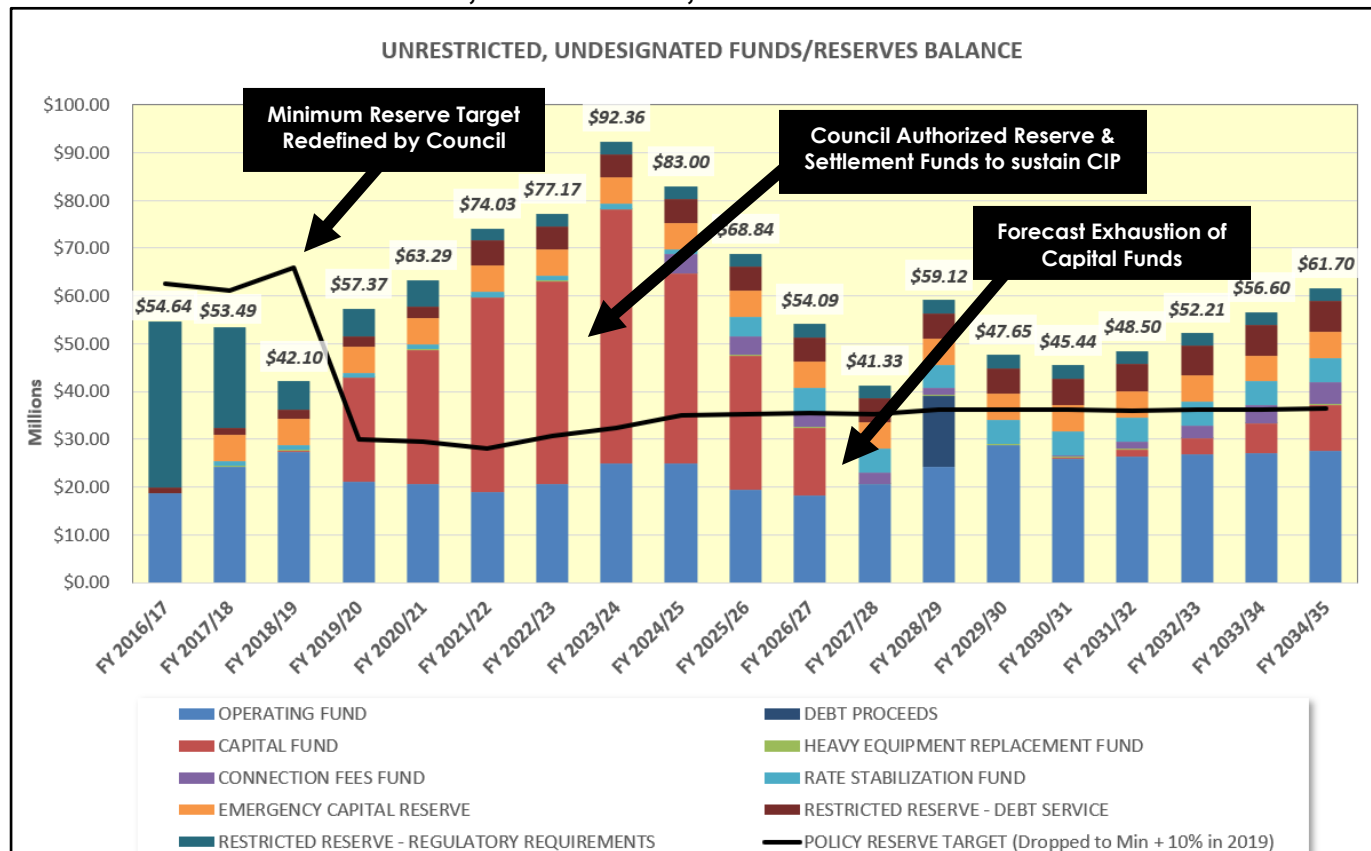
Table 2: Select Capital Improvement Projects from 2018 to Present

Wastewater Division Completed Capital Improvements			
Project	Location	Description	Cost (\$MM)
HVAC Replacement	Treatment Plant	Administration, Laboratory, and Operations Center HVAC and control systems replacement	3.0
Phase I Levee Rehabilitation	Treatment Plant	Increase the height of WQCP flood protection level	5.0
Membrane Bioreactor Expansion	Treatment Plant	6 million gallon per day capacity increase for Membrane Bioreactor Treatment Plant	5.1
Magnolia Force Main Rehabilitation	Collection System	2.6-mile lining of City's second largest pressurized sewer pipeline	8.0
Van Buren Sewer	Collection System	Extension of sewer service to unserved portions of City and County of Riverside	11.7*
Priority Pipeline Replacements	Collection System	Citywide pipeline replacements due to failing conditions and/or capacity limitation	8.6
Total:			41.4

* City share of project cost

Chart 2 shows the overall sewer fund balances, and the impacts of the above-described interventions intended to cash-flow capital projects via reserves and settlement funds while also maintaining minimum reserves. Chart 2 assumes no increases to sewer rates in future years.

Chart 2 – Sewer Fund Balance, Interventions, and Forecast without Increases



DISCUSSION:

Sewer Financial Model

As part of the 2019 Master Planning effort, the Sewer Division had a Sewer Financial Model (Model) developed which is used to periodically evaluate the condition of the Sewer Fund and assess whether rates charged to the individual users are adequate to address current and future operations, maintenance, and capital costs.

The Model uses data provided by the City and information developed as part of the Master Plan as the basis for evaluating future O&M expenditures and the current and projected financial position of the Sewer Division. Results of the Model are used to make informed decisions on operational strategies, project priorities, and when it is necessary to propose revisions to the rate plan. Projections and forecasts from the Model are based on reasonable expectations of future events, escalation of costs, operating expenditures, and capital needs. The Model also facilitates periodic update to the City Council on the state of the Sewer Fund.

The most recent review of the Model concludes that within 2027 and absent additional sewer revenues, the Sewer Fund will be:

- Unable to fund a capital improvement program, and in not doing so, risk future treatment effectiveness and capacity for growth along with a risk of regulatory non-compliance;
- Unable to maintain reserves at or above the Reserve Goal; and
- Unlikely to maintain a favorable debt-coverage ratio; potentially impacting our bond rating.

Overview of Sewer Rate Structure

Revenues generated from the monthly sewer service charge fund the day-to-day operations and maintenance of the sewer collection and treatment systems. Additionally, charges fund the replacement of aging, damaged, and capacity-limited portions of the sewer system, efforts to meet regulatory requirements, and to pay debt service on outstanding indebtedness. The sewer user rates and sewer capacity fees are designed to distribute the cost of the operation and improvement of the RWQCP equitably among all users.

Residential and some commercial customers pay a monthly flat rate, whereas other commercial and institutional customers pay based on actual wastewater flows. Monthly billing for industrial customers is based on the amount of flow in hundred cubic feet (CCF), pounds of Chemical Oxygen Demand (COD) and pounds of Total Suspended Solids (TSS) in their waste stream.

Across all customer categories, a surcharge is applied in areas of the City where sewer must be pumped to the RWQCP. The surcharge accounts for the incremental operations, maintenance, and utility costs associated with the sewer pump stations. Across residential customers, 27.7% reside within a pumping zone (26,199 out of 94,583).

Overview of Rate Considerations

In the absence of rate increases since 2018, ongoing inflation in the general economy and even higher rates of inflation for chemicals, construction, and equipment have required the sewer fund to absorb 29.1% in operations and maintenance (O&M) increases along with utilizing the O&M budget to subsidize capital improvements. As a result, Sewer's increasing operational and capital costs, flat operating revenues, and declining reserves have brought the Sewer Enterprise Fund to a point where it will soon be unable to fund necessary capital improvements, will fail to maintain the minimum reserve level defined by the City council, and be at risk of not meeting its compliance obligations.

Chart 3 below presents a 10-year forecast in a “do-nothing” scenario where sewer rates remain unchanged and revenues constant, while operational, capital, equipment, and labor costs continue to increase consistent with recent trends across all sectors. The scenario assumes the continuation of necessary capital improvements to maintain effective reliable sewer service and compliance with current and future regulatory requirements.

Chart 3 – Projected Sewer Fund Revenues and Costs without Rate Increase

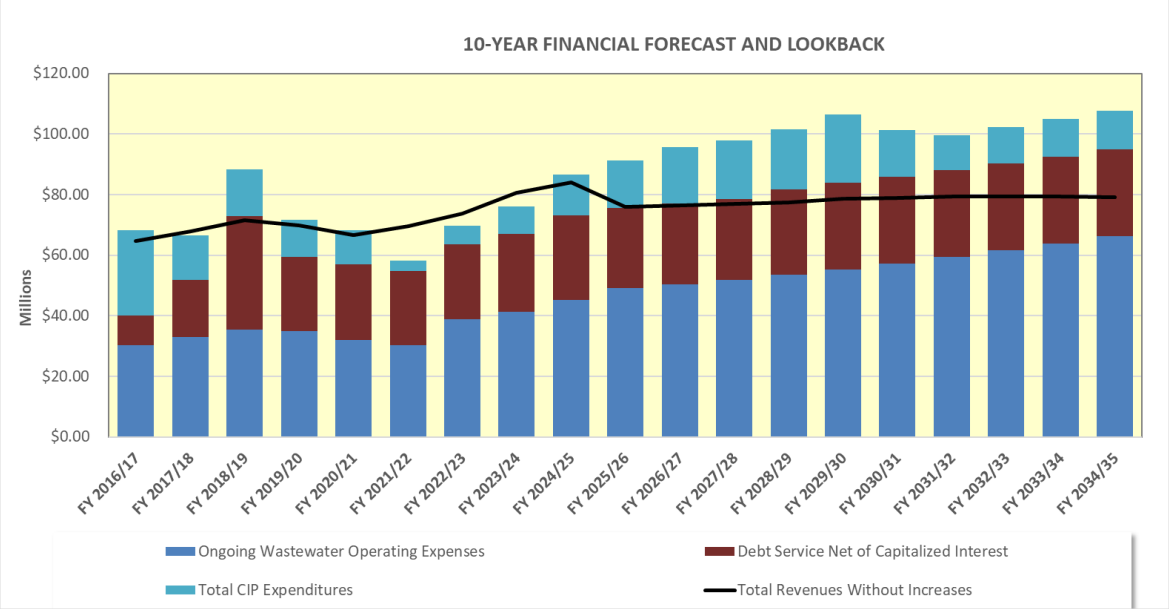
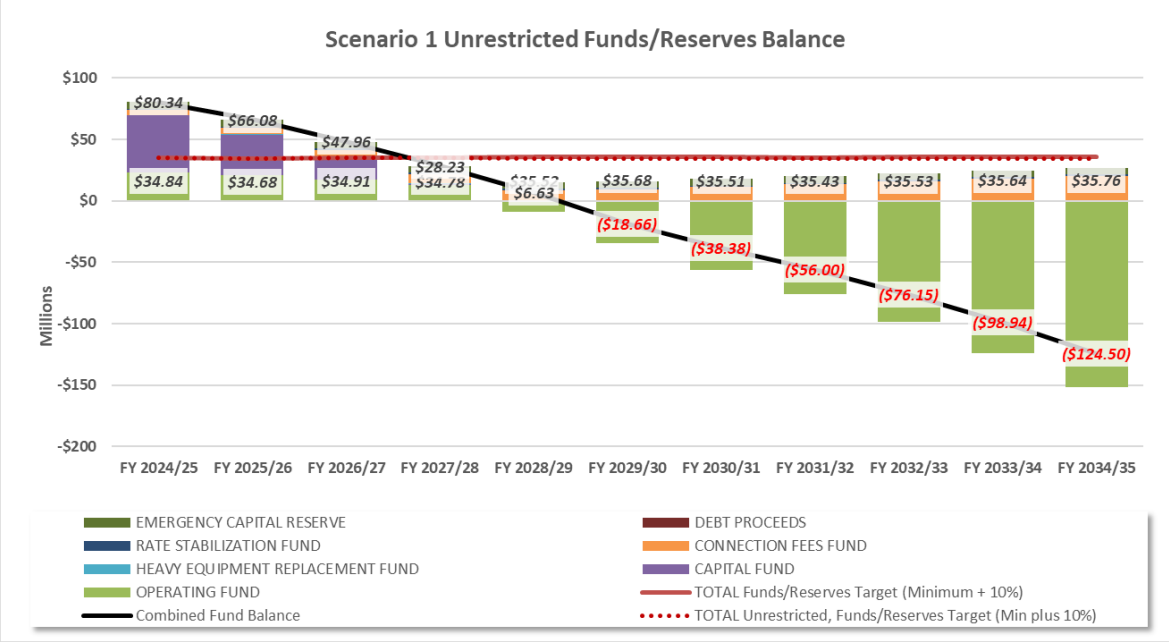


Chart 4 below shows the forecasted impact to the Sewer reserves in the “do-nothing” scenario. The forecast assumes future bond proceeds to support capital projects. It concludes that as reserves continue to subsidize capital and operational needs, sometime in 2027 reserves would fall below the minimum level defined in the Sewer Enterprise Fund Reserve Policy – unable to achieve its goal of maintaining reserves for emergencies, rate Stability, working Capital, and capital improvements.

Chart 4 – Projected Sewer Fund Reserves without Rate Increase



Utilizing the Sewer Financial Model, the Public Works Department evaluated a potential five-year (2026-2030) sewer service rate plan which could result in fiscal certainty for the Sewer Enterprise Fund, support additional bonds to fund a CIP program, replenish depleted reserves, and maintain reserves at or above the Reserve Goal, as illustrated in the following tables and charts.

Increases of 5.0% percent per year were determined to be the level necessary to support these goals and which are recommended for consideration.

Rate Plan Timing

Staff evaluated the timing for implementation of the recommended rate plan. Considering inflationary pressures and other economic uncertainties persist, there could be some benefit to delaying any potential increases to see whether those factors stabilize for the better. Utilizing the Financial Model, if a delayed implementation of up to 18 months were preferred, then some capital projects would need to be further deferred, reserves would continue to be drawn down, and any future rate increases would likely need to be 5.5% or higher when implemented. A higher rate would be needed both to offset increases in construction, chemical, disposal, and labor costs reasonably anticipated over the same period and to accelerate the replenishment of reserves to maintain a satisfactory debt coverage ratio and favorable bond rating.

Potential impacts across sewer customer categories with increases commencing January 1, 2026, are described below.

Although a five-year rate plan is presented, projections and forecasts were modelled over a 10-year planning period so that longer-term projects and operational needs could be considered fully. A reasonable 3% placeholder for revenue and cost escalation was included for years 6 through 10 of the forecasts.

Table 3 – Recommended Five-year Sewer Service Rate Plan

Sewer Service Rate Plan						
Effective	Jan 1, 2026	July 1, 2027	July 1, 2028	July 1, 2029	July 1, 2030	July 1, 2031
Increase	5.0%	5.0%	5.0%	5.0%	5.0%	TBD
Alternative	-	≥ 5.5%	≥ 5.5%	≥ 5.5%	≥ 5.5%	≥ 5.5%

Recommended Residential Rates

Table 4 below illustrates the impact the recommended rate schedule will have on single-family residences in non-pumping zones of the City.

Table 4 - Recommended Single Family Residential Sewer Service Rate (non-pumping)

Recommended Sewer Service Rate Single Family Residential (\$/Month)						
Effective	Jan 1, 2026	July 1, 2027	July 1, 2028	July 1, 2029	July 1, 2030	
\$39.59 (Current)	\$41.57	\$43.65	\$45.83	\$48.12	\$50.53	
Increase	\$1.98	\$2.08	\$2.18	\$2.29	\$2.41	

Recommended Commercial Rates

Table 5 shows the impact the proposed adjustments would have on selected commercial users in non-pumping zones.

Table 5 – Recommended Commercial Sewer Service Rates (non-pumping)

Recommended Sewer Service Rate Commercial (\$/CCF)						
	Current	Jan 1, 2026	July 1, 2027	July 1, 2028	July 1, 2029	July 1, 2030
Office	\$2.36	\$2.48	\$2.60	\$2.73	\$2.87	\$3.01
	Increase	\$0.12	\$0.12	\$0.13	\$0.14	\$0.14
Restaurants	\$7.64	\$8.02	\$8.42	\$8.84	\$9.29	\$9.75
	Increase	\$0.38	\$0.40	\$0.42	\$0.44	\$0.46
Hotels & Motels	\$3.50	\$3.68	\$3.86	\$4.05	\$4.25	\$4.47
	Increase	\$0.18	\$0.18	\$0.19	\$0.20	\$0.21

Recommended Industrial Rates

Table 6 shows the impact the recommended adjustments would have on industrial users in non-pumping zones.

Table 6 – Recommended Industrial Sewer Service Rates (non-pumping)

Recommended Sewer Service Rate Industrial Users						
	Current	Jan 1, 2026	July 1, 2027	July 1, 2028	July 1, 2029	July 1, 2030
Flow (per CCF)	\$2.44	\$2.56	\$2.69	\$2.82	\$2.97	\$3.11
	Increase	\$0.12	\$0.12	\$0.13	\$0.14	\$0.14
COD (per pound)	\$0.44	\$0.46	\$0.49	\$0.51	\$0.53	\$0.56
	Increase	\$0.02	\$0.03	\$0.02	\$0.02	\$0.03
TSS (per pound)	\$0.44	\$0.46	\$0.49	\$0.51	\$0.53	\$0.56
	Increase	\$0.02	\$0.03	\$0.02	\$0.02	\$0.03

Community Service Districts

Community Service Districts pay for sewer service annually based on actual year-end treatment costs. Accordingly, the recommended rate structure does not include any adjustments to rates applicable to them.

Attachment 1 details the entire recommended rate schedule beginning January 1, 2026 and ending July 1, 2030 across all user categories

Proposed Sewer Capital Improvement Program

The recommended five-year sewer rate plan would allow for continued investment in the sewer system, funding approximately \$86M in improvements across the treatment and collection systems over five years. Necessary and critical projects for the treatment and collection systems have been identified and programmed into the proposed 5-year Capital Improvement Plan. Table 7 below summarizes the proposed capital improvement plan across project categories. Across these categories, a total of 32 projects have been identified and programmed in the Capital Improvement Plan.

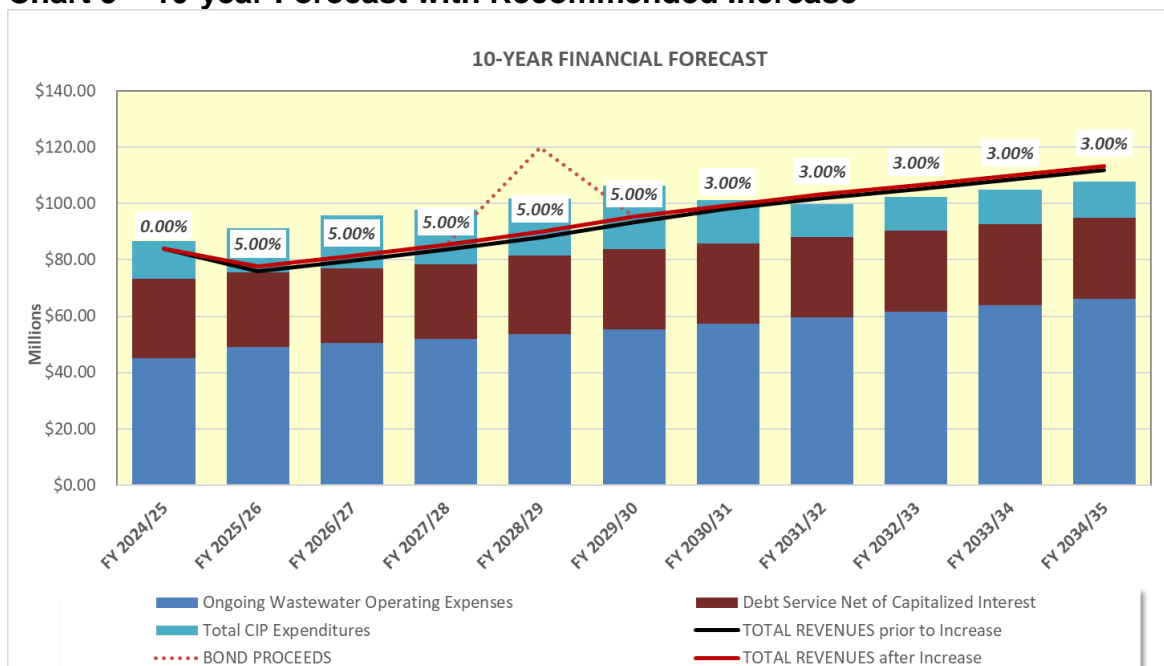
Table 7 – Proposed Five-year Capital Improvement Program

Sewer Enterprise Fund Proposed Five-year Capital Improvement Plan					
Water Quality Control Plant Improvements					
	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY2029/30
Wastewater Treatment	\$2,873,040	\$5,785,700	\$5,785,700	\$5,785,700	\$6,785,700
Solids Treatment & Handling	\$1,100,000	\$600,000	\$600,000	\$600,000	\$600,000
Electrical & Instrumentation	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000
Laboratory & Compliance	\$185,000	\$162,500	\$162,500	\$162,500	\$162,500
Flood Protection & Security	\$200,000	\$200,000	\$200,000	\$200,000	\$700,000
WQCP Total:	\$5,158,040	\$7,548,200	\$7,548,200	\$7,548,200	\$9,048,200
Collection System Improvements					
Pipeline Condition & Capacity Improvements	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Pump Station Repair, Rehabilitation, & Replacement	\$5,900,000	\$5,900,000	\$5,900,000	\$5,900,000	\$5,900,000
Collection System Total:	\$9,900,000	\$9,900,000	\$9,900,000	\$9,900,000	\$9,900,000
Total CIP:	\$15,058,040	\$17,448,200	\$17,448,200	\$17,448,200	\$18,948,200

Outcomes of Recommended Rate Plan

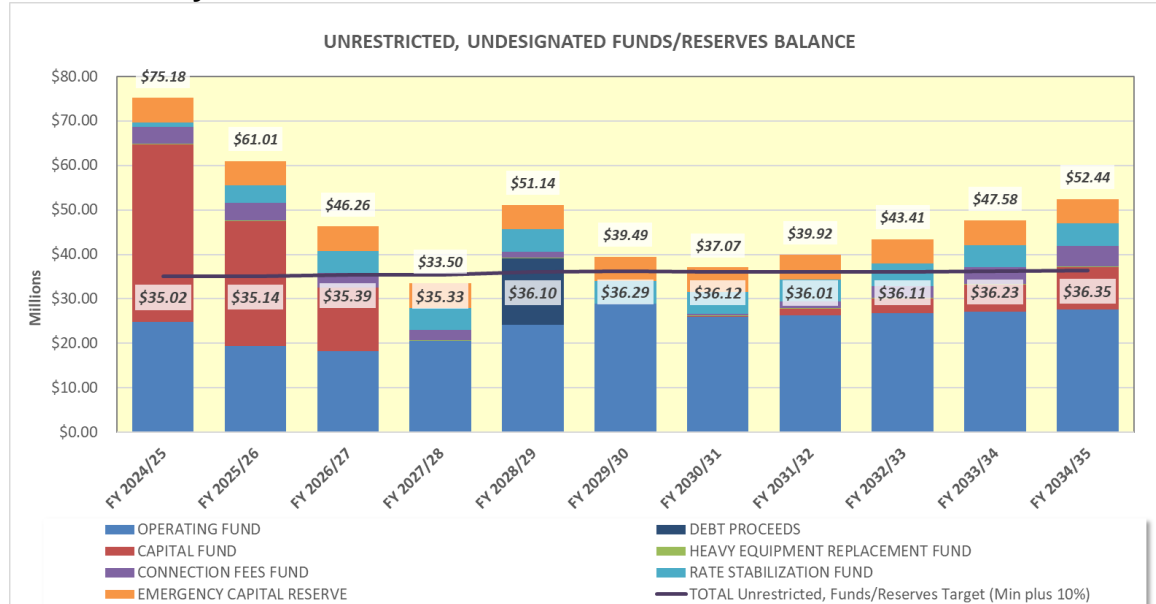
The following charts illustrate the impacts to revenues and reserves from the recommended five-year sewer rate plan.

Chart 5 below presents a 10-year forecast following implementation of the recommended 5.0% increase per year over a five-year rate plan. As forecast, revenues would begin to increase in Fiscal Year 2026, while necessary capital improvements proceed, and reserves continue to be used to facilitate those projects. The scenario would fund necessary capital improvements to maintain effective reliable sewer service and compliance with current and future regulatory requirements.

Chart 5 – 10-year Forecast with Recommended Increase

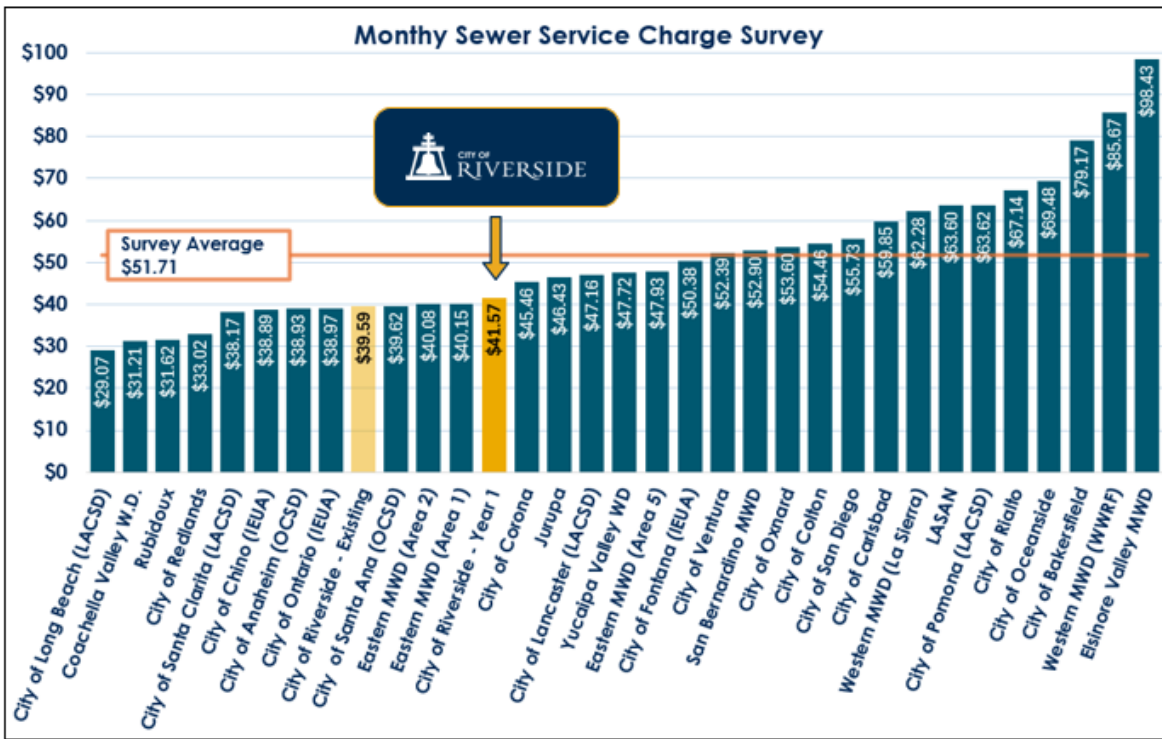
As shown in Chart 6 below, as funds continue to be drawn down toward the Reserve Goal, the forecast anticipates future bond proceeds around Fiscal Year 2029 to allow for the continued implementation of the CIP while also maintaining reserves above target.

Chart 6 – 10-year Forecast of Sewer Fund Balance



The recommended five-year (2026-2030) sewer service rate plan will provide fiscal certainty for the Sewer Enterprise Fund, support additional bonds to fund an ongoing CIP program, replenish depleted reserves, and maintain reserves at or above the Reserve Goal. As shown in Chart 7 below, Riverside would continue to offer among the lowest sewer service rates in the region.

Chart 7 - Comparison of Residential Sewer Service Rates with Recommended Rate



STRATEGIC PLAN ALIGNMENT:

This item contributes to **Strategic Priorities 5 – High Performing Government** and **Goal 5.4 – Achieve and maintain financial health by addressing gaps between revenues and expenditures and aligning resources with strategic priorities to yield the greatest impact** and **6 – Infrastructure,**

Mobility, & Connectivity, and Goal 6.5 – Maintain, protect and improve assets and infrastructure within the City's build environment to ensure and enhance reliability, resiliency, sustainability, and facilitate connectivity.

This item aligns with each of the Cross-Cutting Threads as follows:

1. **Community Trust** – The Sewer Financial Model and Rate Design Project is transparent and developed with our customers' and the community's wellbeing as a top priority and using the best available information available to inform the recommendations therein.
2. **Equity** – The Sewer Financial Model and Rate Proposal includes an equitable allocation of costs across all user categories which is incorporated into the resulting recommendation.
3. **Fiscal Responsibility** – The Proposal incorporates a forecasted revenue requirement that includes operating and capital expenditures funded by the prudent use of rate revenue, bond proceeds, and reserves, and demonstrates Sewer's commitment to responsible management of financial resources.
4. **Innovation** – Development of the rate proposal utilizes a comprehensive financial model developed as part of the 2019 Sewer Master Plan and the CIP considers not only projects which are necessary but also those which will facilitate more efficient operations.
5. **Sustainability and Resiliency** – The Rate Proposal will allow for the construction and repair of critical sewer facilities while also maintaining the financial health of Sewer Fund.

FISCAL IMPACT:

There is no fiscal impact associated with receiving the report on the Sewer Enterprise Fund and providing direction to staff on sewer service rate plan alternatives.

Prepared by:	Edward Filadelfia, Deputy Public Works Director-Wastewater
Approved by:	Gilbert Hernandez, Public Works Director
Certified as to	
availability of funds:	Kristie Thomas, Finance Director/Assistant Chief Financial Officer
Approved by:	Kris Martinez, Assistant City Manager
Approved as to form:	Rebecca McKee-Reimbold, Interim City Attorney

Attachment:

1. Recommended Five-year Sewer Rate Schedule