



*City of Arts & Innovation*

# City Council Memorandum

**TO: HONORABLE MAYOR AND CITY COUNCIL**      **DATE: AUGUST 19, 2025**  
**FROM: PUBLIC WORKS DEPARTMENT**      **WARDS: ALL**  
**SUBJECT: REVIEW OF SEWER ENTERPRISE FUND FINANCIAL MODEL AND SEWER FUND FINANCIAL POSITION**

## **ISSUE:**

Receive and provide input on a review of the Sewer Enterprise Fund Financial Model and Sewer Fund financial position.

## **RECOMMENDATION:**

That the City Council receive a report on the Sewer Enterprise Fund Financial Model and provide input on the Sewer Fund financial position.

## **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 City of Riverside's Water Quality Control Plant's discharge permit ("NPDES Permit") on November 1, 2013. The NPDES 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. Screenings, 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.

In 2018, the City applied to renew the NPDES Permit, as required by law, and is awaiting the revised permit. Staff expect, based on a similar permit recently issued to another local treatment plant, that the new permit will be more onerous across monitoring, testing, and reporting requirements. It will also require a prioritized and funded equipment rehabilitation and replacement program.

### **Sewer Collection System**

In 2022, the State Water Resources Control Board adopted renewed statewide requirements for the operation and maintenance of collection systems in California. It requires the City to routinely evaluate the condition and capacity of the sewer system, prioritize corrective actions, and implement a capital improvement program (CIP) to address deficiencies. The CIP must include projects, construction timelines (including completion dates), and identify funding to complete the

projects. Notably, the regulation compels agencies to “develop and implement a plan to facilitate adequate local funding” for the management of their sewer systems.

Funding availability has been a point of discussion between the State, Regional Water Boards, and the regulated community. In response, recent permits have been clearer and more direct in agency expectations to increase revenue to direct resources for compliance requirements.

#### State Water Resources Control Board Water Quality Enforcement Policy

The State maintains a comprehensive Water Quality Enforcement Policy (State Policy) for evaluating non-compliance and determining when to issue penalties. **As the State Policy applies to those who discharge to Waters of the State, it is a key area where the regulatory landscape differs between Sewer agencies and their counterparts in Water treatment.** Within its introduction, and notably applicable in the context of this report, the State Policy states,

*“Enforcement is a critical ingredient in creating the deterrence needed to encourage the regulated community to anticipate, identify, and correct violations. Formal enforcement should always result when a non-compliant member of the regulated public begins to realize a competitive economic advantage over compliant members of the regulated public. The principle of fairness in enforcement requires that those who are unwilling to incur the expenses of regulatory compliance not be rewarded for making that choice.”*

Along with mandatory minimum penalties for violations, the State includes in its penalty calculations an economic benefit factor defined “as any savings or monetary gain derived from the act or omission that constitutes the violation.” Most relevant to the Sewer Fund’s Capital Improvement Program, the State Policy affirms, “in cases where the violation occurred because the discharger postponed improvements to a treatment system, failed to implement adequate control measures, or did not take other measures needed to prevent the violations, the economic benefit may be substantial.”

#### Sewer Enterprise Fund Reserve Policy

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

Not only is the reserve policy a financial best practice, it is also a positive signal to ratepayers, investors, regulators, and credit rating agencies that the City is committed to maintaining the long-run fiscal strength of the Wastewater Division. The Reserve Policy was adopted to:

- Maintain the short-term and long-term financial health of the Sewer Enterprise Fund
- Maintain stable rates for customers and help ensure manageable rate increases
- Fund unanticipated expenditure contingencies
- Ensure funds exist for system improvements
- Ensure cash exists for the timely payment of bills
- Act as a significant positive credit factor in bond ratings

#### Bond Obligations

The City currently has two outstanding bond obligations (2015A Bonds and 2018A Bonds) secured by sewer enterprise revenues. Combined, the outstanding par amount as of 6/30/2025 is approximately \$290 million, with a combined annual debt service payment of about \$26.6 million: \$14.5M for the 2015A Bonds and \$12.1 Million for the 2018A Bonds. The 2018A

Bonds mature in FY 2040, while the 2015A Bonds mature in FY 2041. These bonds were issued to fund capital improvements to the sewer system, and most notably, the RWQCP.

The City's Sewer Enterprise currently maintains credit ratings of "AA-" from Standard and Poor's and an equivalent rating of "Aa3" by Moody's, the two most prominent credit rating agencies. The Sewer Enterprise was upgraded in 2018 by S&P and in 2023 by Moody's based on several factors, including strong management policies and practices, improving debt service coverage metrics (Net Revenue divided by Annual Debt Service) and very healthy reserve levels. These strong ratings allow the City to access the municipal bond market and obtain competitive borrowing rates on its debt financing.

However, the City's Sewer Enterprise is projected to see both the debt service coverage and reserve levels significantly decline. Without future rate increases, the City would likely fall below its legally required debt service coverage covenants within two years as well as rapidly deplete reserve levels. These risks are further defined in the discussion section of this report.

It should be noted that the City is currently going through the process of refinancing its 2015A Bonds which will generate significant savings to the Sewer Enterprise (over \$17 million through FY 2041 is estimated based on current interest rates). Given the rising expenses in the Sewer Enterprise, combined with stagnant revenues (given no rate increases for 8 years), the City's Finance team is proactively using the refinancing to front load much of the savings over the next few years to ensure that legal covenants are adhered to and that any sewer rate increases on ratepayers is minimized as much as possible. To further mitigate any financial risks and any greater impact on ratepayers, staff has also deployed \$4 million of reserves into the rate stabilization fund to ensure the City's legal covenants can be met during this near period.

## **BACKGROUND:**

The Sewer Division is responsible for the collection and treatment of wastewater for over 100,000 customers within City limits. The wastewater collection system, the network of pipes which convey wastewater to the Riverside Water Quality Control Plant (RWQCP), consists of over 800 miles of gravity sewers, 400 miles of laterals, and 19 wastewater lift stations. Through capacity right contracts, the City also provides wastewater treatment services for the Rubidoux, Edgemont, and Jurupa Community Service 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 updated its Integrated Wastewater Master Plan (Master Plan). The update evaluated the City's collection system and specific treatment processes, recommended future expansions and rehabilitation of facilities, and developed a Capital Improvement Program (CIP) and a rate structure to fund the identified projects.

The average age of the sewer collection system is 50 years old, with 55% of the system over 50 years old. 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 have not been completed.

### Sewer Financial Model Development

As part of the Master Plan, the Sewer Division had a Sewer Financial Model (Model) developed which is used to periodically evaluate the financial position and performance of the Sewer Fund and assess whether rates are adequate to address current and future operations, maintenance, and capital needs.

Model results contribute toward informed decisions on operational strategies, project priorities, and when it is necessary to propose revisions to the sewer service rate plan. Projections and forecasts from the Model are based on reasonable expectations of future requirements, escalation of costs, operating expenditures, and capital needs. The Model also facilitates periodic updates to the City Council on the state of the Sewer Fund as provided herein.

### Rate History from 2014 to Present

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

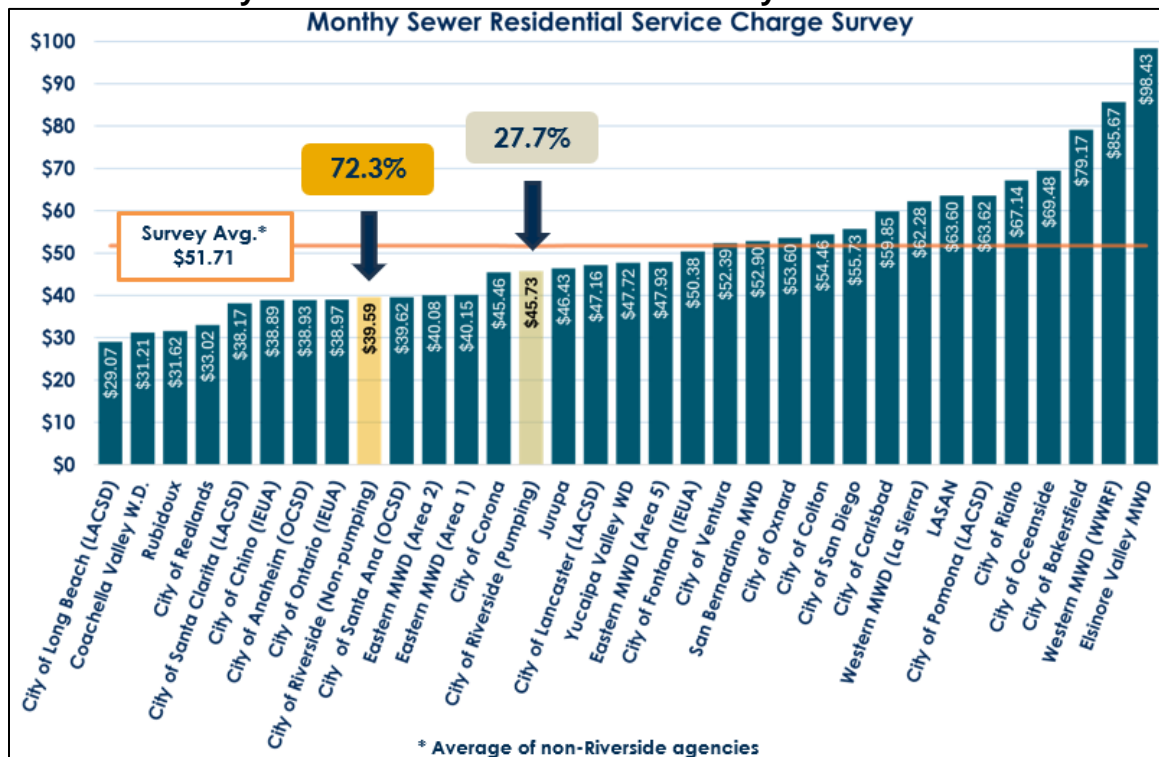
<b>Table 1: Sewer Rate History Since 2014</b>											
<b>Sewer Service</b>	<b>7/1/14</b>	<b>7/1/15</b>	<b>7/1/16</b>	<b>7/1/17</b>	<b>7/1/18</b>	<b>7/1/19</b>	<b>7/1/20</b>	<b>7/1/21</b>	<b>7/1/22</b>	<b>7/1/23</b>	<b>7/1/24</b>
<b>Adopted Rate Increase</b>	8.5%	8.5%	8.5%	8.5%	<b>8.5%</b>	-	-	-	-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

### Overview of Sewer Rate Structure

Sewer user rates and capacity fees are designed to distribute the cost of operating and improving the RWQCP equitably among all users. Revenues generated from the monthly sewer service charge fund the day-to-day operation and maintenance of the sewer collection and treatment systems. Charges also fund the replacement of aging, damaged, and capacity-limited portions of the sewer system, regulatory compliance efforts, debt service on outstanding debt, and efforts to maintain an adequate debt service coverage ratio.

Across all user categories within the service area, an approximate 15% surcharge is applied to customer accounts where wastewater 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).

Chart 1 below shows how Riverside's residential rates, in both pumping and non-pumping zones, compare favorably against most sewer agencies in Southern California.

**Chart 1: Monthly Sewer Residential Service Survey**

### Community Service Districts

The City provides wastewater treatment services to the Rubidoux, Edgemont, and Jurupa Community Services Districts (CSDs) through capacity right contracts. Their treatment costs are projected annually based on actual prior-year treatment costs and independent of the existing sewer rate structure. At the end of each year, the City and CSD's reconcile actual treatment costs against projected treatment costs. The reconciliation results in the CSDs being issued a refund for overpayment or an invoice for costs owed to the City.

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

In October 2022, the City Council received an update on the Sewer Financial Model. To assist staff in managing the Sewer Enterprise Fund, City Council formally defined the "Reserve Goal" as the Reserve Policy Minimum Reserve Target plus 10%. Additionally, the City Council authorized the use of reserves and settlement funds for capital projects through FY 2026/27.

Supported by City Council's authorization to access reserves and settlement funds for capital improvements, the Sewer Division advanced the most critical projects needed to address safety, treatment capacity, and portions of the collections system with significant defects. Attachment 1, Table 1 summarizes some of the capital improvements completed since 2018.

## **DISCUSSION:**

### Current Sewer Financial Model Projections

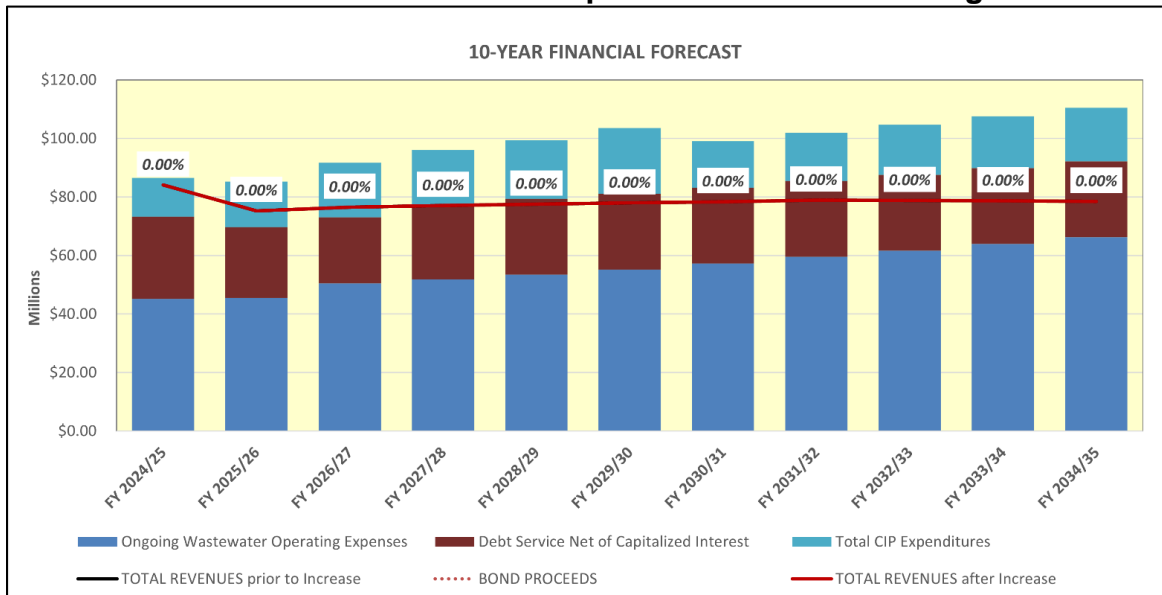
The absence of rate increases since 2018, ongoing inflation in the general economy and even higher rates of inflation for chemicals, construction, and equipment have required the sewer fund to absorb 29.1% in operations and maintenance (O&M) increases along with utilizing the O&M budget to subsidize capital improvements. Cumulatively, these pressures are now threatening some of the long-standing principles which have informed the management of the Sewer Enterprise Fund including:

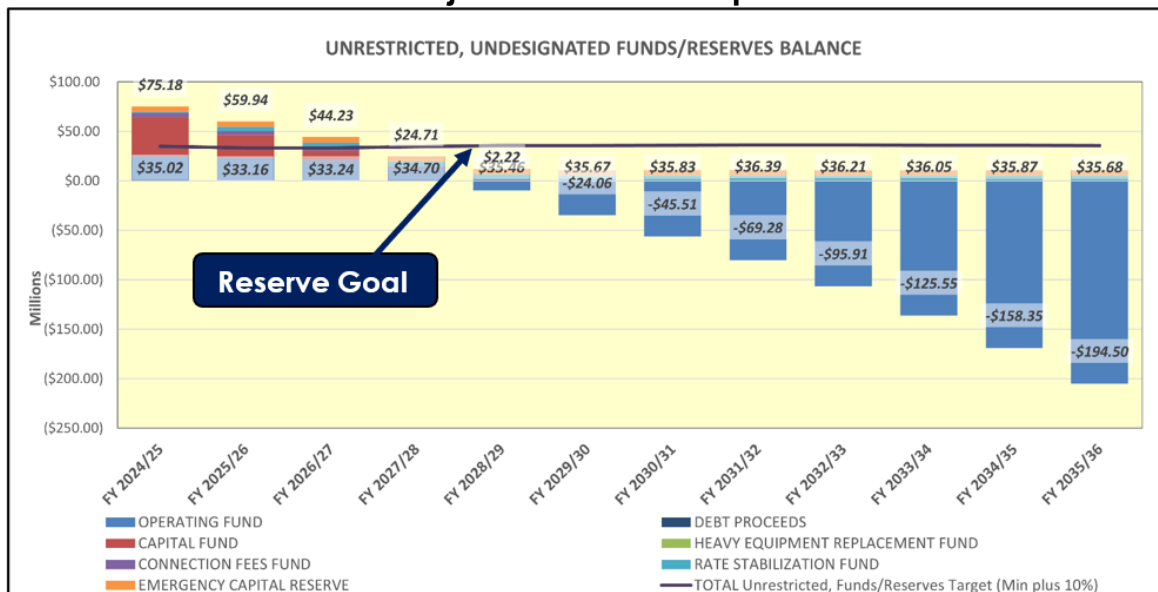
- Maintaining strong financial fundamentals and a stable and predictable operating environment to support a high-grade credit rating;
- Maintaining adequate reserves for emergencies, rate stability, debt-coverage, and to fund other unanticipated contingencies;
- Implementing a proactive yet conservative Capital Improvement Program which ensures continuous reliable service and helps position the City for growth and development; and
- Ensuring 100% compliance with regulatory requirements.

The most recent review of the Sewer Financial Model is shown in Charts 2 and 3 below. They demonstrate (Chart 2) that the gap between revenues and expenditures will continue to increase year over year and, by continuing to use reserves to subsidize O&M and capital, sometime within 2027 (Chart 3) the Sewer Fund is projected to be:

- Unable to maintain reserves at or above the Reserve Goal,
- Unlikely to maintain a favorable debt-coverage ratio; potentially impacting credit and bond ratings,
- Out of funds and unable to maintain its Capital Improvement Program, and in not doing so:
  - Risk future treatment effectiveness
  - Risk capacity for growth
  - Risk regulatory non-compliance and through its exposure to regulatory penalties and third-party lawsuits.

**Chart 2 – Sewer Fund Revenue and Expenditure Forecast through FY 2034/35**



**Chart 3 – Reserve Goal & Projected Sewer Enterprise Fund Reserve**

Sewer has evaluated, and in some cases begun implementing the various interventions generally available to stem the anticipated trends; reducing operating costs, scaling back capital projects, increasing non-rate revenue, and utilizing reserves. A summary of these interventions is provided in Table 2 below. None of these interventions, individually or collectively, appear effective enough to reverse the negative reserve projections.

**Table 2: Sewer Enterprise Fund Interventions**

Intervention	Measure	Estimated Savings/Revenues
Operating Costs	Re-bid bulk chemicals	\$620,000 / yr
	Optimized disinfection process & received State authorization to reduce chemical use.	\$1.0M / yr
Capital Projects	Parsed project listing down to minimum mandatory projects	TBD
Utilize Reserves	Leveraged reserves and settlement funds to advance projects	Projects completed 35% below estimated costs
Non-rate Revenue	Digester 5 Rehabilitation Grant Funds	\$2.0M
	Riverside Bioenergy Facility Grant Funds	\$10.0M
	Unused WQCP Property Lease (3 yr.)	\$120,000 total

Although it has been effective over the last few years, utilizing reserves is a short-term strategy, which if continued will only increase the need for higher rate increases in the future. Moreover, the other proactive interventions discussed above, and depending on how heavily they continue to be relied upon, may soon cause collateral impacts in other areas of strategic importance. These areas include the Sewer Division's ability to:

- Remain in compliance with current regulatory requirements and proactively plan for future ones with an increasingly modest and diminishing capital improvement program;
- Meet its current bond obligations, and risk its ability to issue additional bonds; and
- Maintain its current credit profile.

Accordingly, when evaluating the effectiveness of current revenues, each of these warrant consideration and particular attention as to where there is room to compromise further or accept additional risk. Each are discussed in below:

#### Capital Improvement Program and Regulatory Compliance Implications

Staff has identified approximately \$86M in improvements across the treatment and collection systems over five years. These have been programmed into the proposed 5-year Capital Improvement Plan. Attachment 1, Table 2 summarizes the proposed capital improvement plan across broad project categories which include 32 individual projects. These reflect what staff believe are the minimum projects necessary to ensure compliance and preserve some capacity for growth and development.

Whereas Capital Improvements have historically been somewhat discretionary, current regulations for both the treatment and collection systems now make them compulsory. The basis for this assertion is as follows:

#### **Riverside Sewer Collection System**

Statewide requirements for sewer collection systems now require the ongoing evaluation of sewer system capacity and condition. System owners, such as the City of Riverside, are obligated to identify capacity-limited areas of the sewer and “shall implement improvements to provide adequate hydraulic capacity.” The regulation, through its requirement to implement a system-specific Sewer System Management Plan, also requires the development of a Capital Improvement Plan, which includes project schedules and funding sources.

#### **Water Quality Control Plant**

Staff anticipate that the renewed permit for the Water Quality Control Plant will be more stringent than the current permit issued in 2013. This position is informed by a review of a permit recently issued to a neighboring agency within the Santa Ana Regional Water Board's jurisdiction. That permit includes heightened monitoring and reporting requirements, specific PFAS monitoring requirements, and the need to develop a facility-specific Climate Change Action Plan – all of which will require additional resources for compliance. Similarly, and in some cases more stringently than for the Collection System, the new permit requires the development of a treatment plant Asset Management Plan, which prioritizes rehabilitation and replacement projects and outlines a schedule for each. This includes a detailed inventory of critical wastewater treatment facility assets, rehabilitation and replacement planning, and identification of the funding source to support rehabilitation and replacement activities.

Permits for the operation of the Water Quality Control Plant and the Sewer Collection System are issued under the authority of the Clean Water Act. In addition to potential regulatory-driven sanctions for non-compliance, the Clean Water Act also entitles third parties to bring suit against the City for any violations of these permits. Staff believes that the inability to fund a Capital Improvement Program to the satisfaction of the State and Regional Water Quality Control Boards can create an avoidable level of regulatory exposure and uncertainty in the future.

#### Bond Legal Covenants (Provided by City's Bond Advisors)

The City's Sewer Bonds have several legal covenants that protect investors of the City's bonds and gives them comfort that the City will maintain sewer rates and revenue at sufficient levels. The Additional Bonds Test and the Rate Covenant are the two most important covenants. These require that the City maintain at least 110% debt service coverage, meaning that Net Revenues of the Sewer System are at least 110% of the annual debt service. The City cannot issue any



Additional Bonds unless it can demonstrate this minimum coverage metric will be met, and if the City were to fall below 110%, the City would be required to raise sewer rates immediately.

Based on the proforma developed by the City's rate consultant, without any rate increases and without the refinancing of the 2015A Bonds, the City is projected to be very close to falling below its required minimum debt service coverage this fiscal year (FY 2026) and would fall below this threshold by FY 2027 based on the rate model projections. As noted previously, given these financial risks, the City is strategically using the refinancing of the 2015A Bonds as well as the rate stabilization fund to mitigate this financial risk over the next 2 years so that next steps can be appropriately considered. While these proactive strategies by staff should help the City ensure its legal bond covenants are met, the declining debt service coverage metrics do pose a threat to the City's credit rating.

#### Credit Rating (Provided by City's Bond Advisors)

As noted earlier, the City's Sewer bonds have strong ratings, with both S&P and Moody's upgrading their ratings in recent years (S&P in 2018 and Moody's in 2023). Core to these upgrades were the improvement in debt service coverage as well as the maintenance of large reserve balances. Over the past five years, annual debt service coverage has averaged 151%, with a high point of 171% in FY 2022. For comparison, even with the refunding of the 2015A Bonds and assuming sewer rate increases at some future date, debt service coverage is projected to be 125% for the next few fiscal years, and while this metric complies with the City's legal covenants, it is a large drop from prior years and could pose headwinds for the City's credit rating. This coverage would drop even lower if the refinancing is not executed as planned, and as noted before, significantly lower if no rate increases were approved.

While reserves would be rapidly depleted without any rate increases, they are still projected to drop significantly (vs. levels seen over the past five years) even with a rate increaser. Despite these drops, the strategic use of reserves to fund critical capital projects is understood by rating agencies and shouldn't pose any added downward pressure on the credit rating than already faced, so long as the City continues to meet its minimum Reserve Goals.

If the City were to be downgraded one step ("AA-" to "A+" for example), it is estimated that borrowing rates would increase by about 0.20% to 0.25%. Any downgrade by more than one-notch would cause a larger increase on potential borrowing rates for the City's Sewer enterprise.

Ultimately, it is unknown how the credit rating agencies could react to the weakening metrics. Core to the credit rating for any utility is the "willingness to raise rates to meet financial obligations". Not only would a rate increase be seen in a positive light by the credit rating agencies, given the long period of time since the last rate increase, but it is also necessary to sustain healthy operating results. Not approving or delaying rate increases will cause the City's credit profile to significantly weaken and could negatively impact the City's credit rating. This would ultimately increase costs for the enterprise, and its rate payers, through higher borrowing costs on its future debt.

#### Sewer Revenues

Utilizing the Sewer Financial Model, staff has evaluated various rate scenarios which would 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. In all cases staff considered a five-year rate plan with projections and forecasts 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. These are included in Attachment 2 as revenue forecasts and reserve

projections for a 5-year, 6% per year rate increase (Charts 2A and 2B) and a 5-year, annual escalating rate increase (Charts 3A and 3B). The scenarios support the conclusion that a rate plan of 5-year, 6% increases would allow revenues to keep pace with anticipated increases in costs while also maintaining a reserve balance that will meet bond obligations and support a strong credit rating. Scenarios also show that efforts to implement a gradual increase would require significantly higher rates in the out years to account for lower revenues early on, while also preventing reserves from staying above the reserve goal over the same period.

Staff recognizes while 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. It was determined that regardless of duration, delayed implementation has a universal impact across all scenarios - capital projects would need to be deferred further, reserves would continue to be drawn down, and any future rate increases would be proportionately higher based on the length of delay in implementing the increase. A higher rate would be needed both to offset already realized 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.

### **FISCAL IMPACT:**

There is no fiscal impact associated with receiving the report on the Sewer Enterprise Fund Financial Model and providing input on the Sewer Fund financial position. If the City Council should want to review potential future sewer rate scenarios further, staff will return to City Council with a detailed analysis of those scenarios across each customer category and the resulting impact to the Sewer Fund financial position.

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### **Attachments:**

1. Select Capital Improvement Projects Completed Since 2018
2. Sewer Financial Model Scenarios
3. Sewer Enterprise Fund and Financial Model presentation