



CITY OF BELLE MEADE

Memo

To: Belle Meade Commissioners
Doug Berry, City Attorney

From: Jennifer Moody

Date: September 18, 2023

Re: Wholesale Agreement between Belle Meade and Metro-Nashville (Sewer Services)

BACKGROUND

The City of Belle Meade is a customer of the Metro-Nashville system for the transport and treatment of sewage collected within the city. While the City of Belle Meade owns and maintains a sewage collection system, we do not have our own treatment facilities. The sewage flows from our system into the Metro system where it is treated. The City of Belle Meade, and all other wholesale customers, operate under 10-year Agreements with Metro expiring on October 1, 2024.

The terms of the Agreement explain that the City of Belle Meade will pay a wholesale rate that is to be adjusted on October 1st of each year. In the initial year, and every 5-years thereafter, the wholesale rate is determined based upon a third-party consultant's rate study. All wholesale customers participate in selection of the third-party consultant and share in the cost of the study. In the intervening years, the rate is adjusted (increased or decreased) based up the lesser of two indices – one is the NACWA Service Charge Index and the other is the Consumer Price Index – All Urban Consumers (CPI-U).

The City received a notice, dated August 16, 2023, that the new wholesale rate effective October 1, 2023 will be \$1.53 per CCF. This is a 4.5% increase over last year's rate and is based upon the NACWA Service Charge Index, which was significantly lower this year than the CPI-U of 8.5%. Below is the history of wholesale rates during the current 5-year period.

Year	2019	2020	2021	2022	2023
Utility Price	\$1.38	\$1.40484	\$1.4217	\$1.46	\$1.53
Lowest Index of Two:					
NACWA	-	3.80%	2.90%	3.10%	4.50%
CPI-U	-	1.80%	1.20%	5.30%	8.50%

The last rate study was conducted in 2019. A new rate study will need to begin in late 2023/early 2024 to reset the base rate for an effective date on October 1, 2024. Mr. Jim Snyder, External Affairs Legislative Director with Metro Water and Sewer Services, has been extremely helpful explaining the background of the City's relationship with Metro. He advises that we should expect communication from him in October or November of this year regarding our participation in hiring a consultant for the rate reset study. He stated that Metro budgets approximately \$80,000-100,000 for the study and that the actual cost will be shared among all

wholesale customers (approx. seven cities). In early calendar year 2024, the rate study will be developed and, similarly, with this being the last year of the current Agreement, they intend to provide a draft of a new 10-year Agreement.

BELLE MEADE SEWER USER FEES

The City of Belle Meade collects a “Belle Meade Surcharge” which is a user charge that generates revenue for the maintenance of the City of Belle Meade’s sewer collection system. The current sewer charges, as of July 1, 2023, are \$3.26 per 100 cubic feet of water consumed, with a minimum of \$30.03 per month per user. This rate was a 2% increase implemented based upon a 2021 rate study by Mr. Buddy Petty of RateStudies, Inc.

Year	2019	2020	2021	2022	2023	2024	2025	2026
Belle Meade Sewer User Surcharge	\$2.85 (-)	\$2.85 (-)	\$3.14 (10%)	\$3.20 (2%)	\$3.26 (2%)	<i>\$3.32 (2%)</i>	<i>\$3.39 (2%)</i>	<i>\$3.46 (2%)</i>

Prior to the 2021 study, the City maintained a rate of \$2.85 per 100 cubic feet for five years (2016-2020). The recommended rates for 2022-2026 included a 10% increase for FY 21/22, a 2% increase for each fiscal year after. In 2021, at the time the study was delivered, these increases were anticipated to support the operations of the Sewer Fund, including depreciation, and provide sufficient cash to cover Metro Services fee increases and fund the Wastewater Capital Improvement Plan.

However, in the last two year, the actual cost of Metro Sewer Services and their related fee to the City of Belle Meade has increased at rates much higher than those assumed under the study. The study assumptions were that the Metro Services fee would average 1.5% annual increases. Historical trends would have supported that prior to 2022. More recently, the actual 4-year average is 2.65% with last year being a 3.10% increase and the new 2023 rate being an increase of 4.5%.

Recommendation

No action is requested tonight. The Board is recommended to review all attachments in preparation for future agenda items related to the wholesale rate reset study and contract renewal with Metro Nashville. Additionally, the City Manager and Finance Director intend to contact Mr. Buddy Petty, who developed the rate recommendations for the City’s Sewer Fund, to request that he update the underlying assumptions and revise recommendations for FY 2025 and FY 2026. New recommendations will support future rate adjustment recommendations that will be presented to the Board of Commissioners for approval.

Fiscal Impact

The City’s budget adopted for this fiscal year did not anticipate these more significant increases in the Metro wholesale rate. We will need to monitor our receipts after the October 1st rate goes into effect and it could result in the need for a budget amendment. Based on the last two Metro fee increases, it is likely that the Board consider making annual adjustments for sewer user charges greater than 2% to proactively prevent needing to make a single, larger adjustment in the future.

Attachments

- Agreement expiring October 1, 2024
- New Rate Notice dated August 16, 2023
- 2022 Cost of Clean Water Index, NACWA
- Belle Meade User Fee Rate Study, 2021

AGREEMENT

THIS AGREEMENT is made and entered into this 8 day of Aug, 2014, by and between the Metropolitan Government of Nashville and Davidson County ("Metro") and the City of Belle Meade ("Customer").

WHEREAS, Metro owns and operates a sewage transportation and treatment system (the "Metro System"); and

WHEREAS, Customer owns and operates a sewage collection system (the "Customer System"); and

WHEREAS, the Metro System has or will have sufficient capacity to safely and effectively accept and treat sewage flows from the Customer System as contemplated herein.

THE PARTIES AGREE AS FOLLOWS:

1. Effective Date; Term. This Agreement shall become effective only after its approval by the Metropolitan Council and filing with the Metropolitan Clerk. The term shall commence on October 1, 2014 and end on October 1, 2024.
2. Transportation and Treatment Service. Metro agrees to accept into the Metro System sewage flows from the Customer System for transportation and treatment.
3. Billing. The parties agree that Metro will read the water meters for Customer's water and sewerage customers and, based on the meter readings obtained, bill such customers for:
 - a. water service at the applicable rates set forth in the Metropolitan Code of Laws; plus
 - b. sewerage service at the Utility Price established in this Agreement; plus
 - c. a surcharge of 10% of the amount due for sewer service as provided in BL2010-790; plus
 - d. an administrative fee of 10% of the charges due for wholesale sewerage service at the Utility Price; plus
 - e. a surcharge ("Belle Meade Surcharge") as directed by Customer.
4. Surcharge Payments. Once each month, Metro will remit all Belle Meade Surcharge payments collected on behalf of Customer in the previous month.

5. Metro Transportation and Treatment Utility Price. The Utility Price on October 1, 2014 shall be \$1.30 per hundred cubic feet of flow.
6. Annual Utility Price Adjustments. On October 1 of each year during the term of this Agreement, the Utility Price shall be adjusted for the following calendar year.
 - a. For the calendar years beginning October 1 of each year except 2019, the Utility Price then in effect shall increase or decrease by a percentage equal to the smaller of: (1) the percentage increase or decrease from the previous calendar year in the Service Charge Index compiled and published by the National Association of Clean Water Agencies; or (2) the percentage increase or decrease from the previous calendar year of the annual average in the Consumer Price Index – All Urban Consumers (CPI-U), U.S. City Average, All Items, 1982-1984 = 100, published by the United States Department of Labor, Bureau of Labor Statistics. If one of the indexes identified in this paragraph ceases to be published during the term of this Agreement, a comparable index acceptable to the parties shall be substituted.
 - b. For the calendar year beginning October 1, 2019, the Utility Price shall be set using the utility approach method used by Metro and its wholesale customers, including Customer, to establish the Utility Price, which method is described below.
 - i. The operating cost component shall be calculated using Metro's then current fiscal year budgeted costs for operation and maintenance of joint facilities divided by the total treated flow through all Metro facilities expressed as an average annual flow for the three previous fiscal year periods. Joint facility costs are defined as Metro's budgeted operations and maintenance costs for wastewater services only, exclusive of debt service costs, capital outlay, capital improvements plan (CIP) and storm water costs. Joint facility costs include costs for the operation of facilities that provide benefit to both wholesale and retail customers. Typically, joint facility costs would include costs associated with the operation of all core system assets, including wastewater treatment plants, wastewater interceptors and pump stations. Joint facility costs do not include retail costs, such as costs for the operation of system components that generally do not benefit wholesale customers. Retail costs would include costs associated with the local service wastewater collection lines, as well as customer service and billing and collection costs.
 - ii. The capital cost component includes both a return on assets calculation and an allocated portion of depreciation expense.

- (a) The return on assets calculation considers the original cost less depreciation of Metro's capital assets that benefit both wholesale and retail customers. Capital assets include wastewater treatment plant assets, including sludge management and odor control facilities, pump station assets, wastewater interceptors and large force mains that are determined to benefit both wholesale and retail customers. This return on asset base shall not include construction work in progress. The capital allocation to wholesale customers, as a class, shall be based on their proportionate share of treated flows. The resultant capital allocation shall be multiplied by a capital cost return component based on Metro's weighted cost of debt, plus 200 basis points (two percentage points). Metro's weighted cost of debt shall be based on outstanding bond issues for wastewater debt listed in the most recent official statement for Metro bonds.
 - (b) The allocated portion of depreciation expense shall be based on the annual depreciation of wastewater assets that benefit both wholesale and retail customers. The allocated portion of depreciation expense to wholesale customers, as a class, shall be based on their proportionate share of treated flows.
 - (c) The sum of the return on assets calculation and the allocated portion of depreciation expense shall be divided by the total treated flow of all wholesale customers, as a class, expressed as an average annual flow for the three previous fiscal year periods.
 - (d) For the fiscal year beginning July 1, 2008, the undepreciated value of the joint use assets is \$46,000,000.
 - (e) Metro will update the rate base to reflect the retirement and addition of joint use assets since the valuation point used to establish the rate set forth in paragraph 6 which was Metro's July 1, 2008 – June 30, 2009 fiscal year.
 - (f) Depreciation amounts will be based upon the depreciation policies and procedures used by Metro, provided such depreciation policies and procedures are consistent with generally accepted accounting principles and policies applicable to municipal water and sewer utilities.
7. Selection of Rate Consultant. Not later than October 1, 2018, Metro and Customer shall jointly engage a qualified and mutually acceptable rate consultant to develop the Utility Price as contemplated in Paragraph 6 of this Agreement. The costs for the

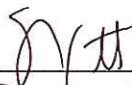
development of the Utility Price pursuant to this Paragraph shall be borne jointly by Customer and Metro.

8. Additional Capacity. The parties acknowledge that neither has any ownership rights to additional capacity in the sewage collection, transportation and treatment systems of the other. Neither party shall have the right to compel the acceptance of flows into the other party's system except as specifically contemplated in this Agreement.
9. Extension. The term of the Agreement shall end on October 1, 2024, but may be extended by the parties upon such terms as they may then agree. Neither party shall be entitled to a refund of any payment made under this Agreement upon the termination or expiration of this Agreement. The parties agree that no notice shall be necessary in order for the Agreement to terminate by expiration at the end of the term referenced above.
10. Reselling of Service. Services provided to Customer under this Agreement may not be resold to any other governmental or other entity other than Customer's retail customers.
11. Assignment. Customer shall not assign its rights under this Agreement without Metro's express written consent.
12. Modification. All of the terms of agreement and understandings of the parties are set forth in this document. No modification of this Agreement shall be effective unless in writing and signed by authorized representatives of both parties.
13. Mediation. In the event of a dispute between the parties on any matter arising under this Agreement which the parties cannot reconcile, the dispute shall be submitted to mediation in accordance with the terms of this paragraph before any complaint can be filed in a court of law or equity for a breach of this Agreement. In the event the dispute involves the Utility Price to be paid by the Customer for wholesale sewer treatment service, the mediator shall have experience in performing utility rate cost of service studies. If the parties cannot agree upon a qualified mediator, a qualified mediator shall be appointed by the Clerk and Master of the Davidson County Chancery Court upon application by the parties certifying their inability to agree upon a qualified mediator. The mediator shall establish the procedures for the mediation.
14. Governing Law and Forum. This Agreement shall be governed by the laws of the state of Tennessee, and any action relating to this Agreement shall be brought in a court of competent jurisdiction in Davidson County, Tennessee.

THE METROPOLITAN
GOVERNMENT OF NASHVILLE
AND DAVIDSON COUNTY

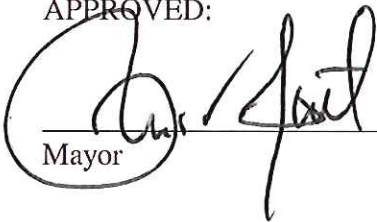
CITY OF BELLE MEADE

APPROVED:




Director, Department of Water and
Sewerage Services

APPROVED:



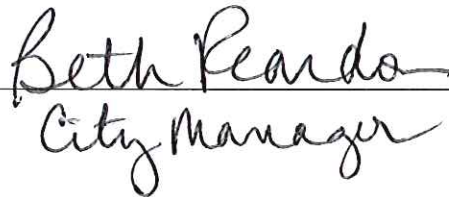
Mayor

APPROVED:



Director, Department of Finance

ATTEST:



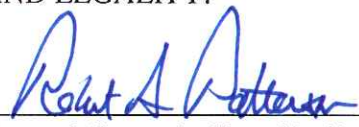
City Manager

APPROVED AS TO FORM
AND LEGALITY:



Metropolitan Attorney

APPROVED AS TO FORM
AND LEGALITY:



General Counsel, City of Belle Meade
Robert S. Patterson

Approved at July 1, 2014
Board of Commissioners Meeting

JOHN COOPER
MAYOR



METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY

DEPARTMENT OF WATER AND SEWERAGE SERVICES
Office of the Director
1600 Second Avenue, North
Nashville, Tennessee 37208-2206

August 16, 2023

Ms. Beth Reardon, City Manager
City of Belle Meade
4705 Harding Road
Nashville, TN 37205

RE: New Utility Price per Wholesale Agreement Dated August 8, 2014

Dear Ms. Reardon,

In accordance with the requirements of the above referenced agreement, we are hereby advising you of the new wholesale rate to be effective October 1, 2023.

Enclosed is the calculation sheet along with a copy of the NACWA 2022 Service Charge Index and the Consumer Price Index–All Urban Consumers (CPI-U) Annual Average Percentage Change for 2022. The new rates are computed using the current rate and the NACWA because it had the lower index change.

The new utility price is \$1.53 per CCF.

Metro Water Services will bill the new rate with the October 2023 billing. Should you have any questions concerning this information, please contact me at 615-456-0248.

Sincerely,

DocuSigned by:

Jim Snyder

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Jim Snyder
External Affairs Legislative Director

Enclosure

cc: Scott A. Potter, Director
Amanda Deaton-Moyer, Assistant Director
Shannon Frye, Assistant Director
John Honeysucker, Assistant Director
Wholesale Rate Billing Team

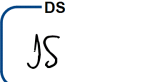

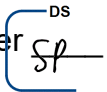


If you need assistance or an accommodation, please contact Metro Water Services,
at 615-862-4862, 1600 Second Avenue North, Nashville, Tennessee 37208.

City of Belle Meade

Legal Authority: Wholesale Agreement dated August 8, 2014, Paragraph 6

Utility Price Effective Date: October 1, 2023

Rates prepared by Jim Snyder: ^{DS}  Date: 8/16/2023
 Rates reviewed by Amanda Deaton-Moyer:  Date: 8/15/2023
 Rates authorized for billing: Scott Potter ^{DS}  Date: 8/16/2023

Utility Price per CCF of flow as of Oct 2023 is **\$1.53**

Year	2019	2020	2021	2022	2023
Utility Price	\$1.38	\$1.40	\$1.42	\$1.46	\$1.53
Lowest Index of:					
NACWA	-	3.80%	2.90%	3.10%	4.50%
CPI-U	-	1.80%	1.20%	5.30%	8.50%

Note: Belle Meade Surcharge is \$0.90 as of September 1, 2014

Note: Belle Meade Surcharge is \$1.90 as of October 1, 2015

Note: Belle Meade Surcharge is \$2.85 as of April 20, 2016

Note: Belle Meade Surcharge is \$3.14 as of July 1, 2021

Note: Belle Meade Surcharge is \$3.20 as of July 1, 2022

Note: Belle Meade Surcharge is \$3.26 as of July 1, 2023

References:

[Belle Meade Agreement dated August 8, 2014](#)

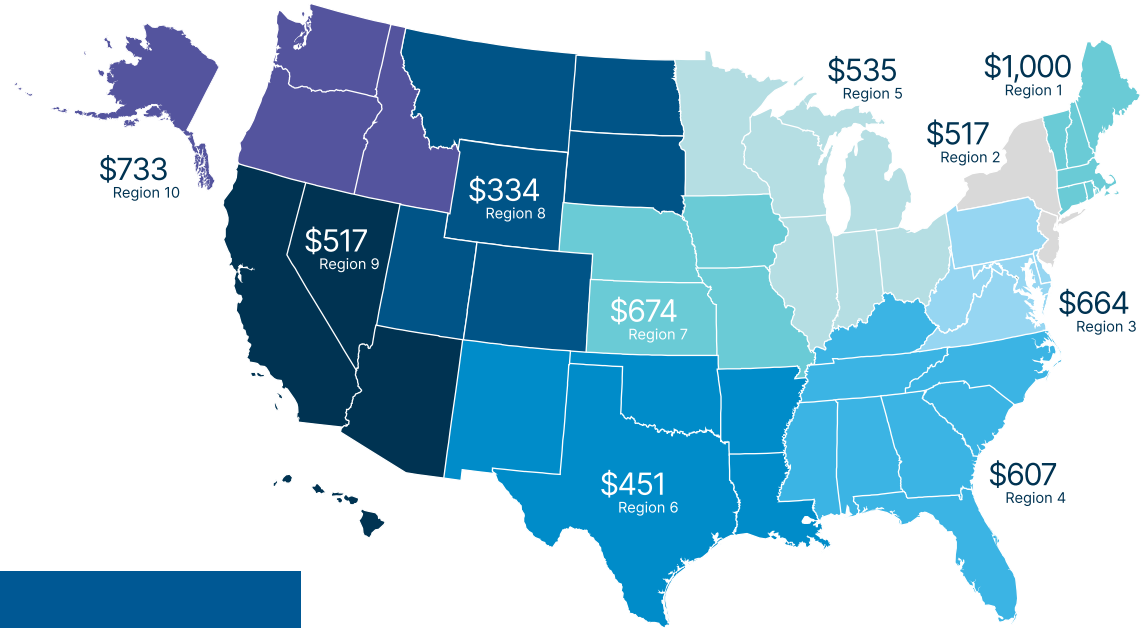
[NACWA INDEX](#)

[CPI-U](#)

Metro Nashville Wholesale Wastewater Rate Update dated May 3, 2019

2022

Cost of Clean Water Index



Regional Average Annual Charges, 2022
All Respondents

107 Million

POPULATION SERVED

173

UTILITY RESPONDENTS

\$569

AVERAGE NATIONAL ANNUAL
SEWER SERVICE CHARGE

4.5%

INCREASE IN SEWER CHARGES
2021-2022

8.0%

INCREASE IN CONSUMER
PRICE INDEX 2021-2022

Average Charge for Wastewater Services Increased 4.5% in 2022

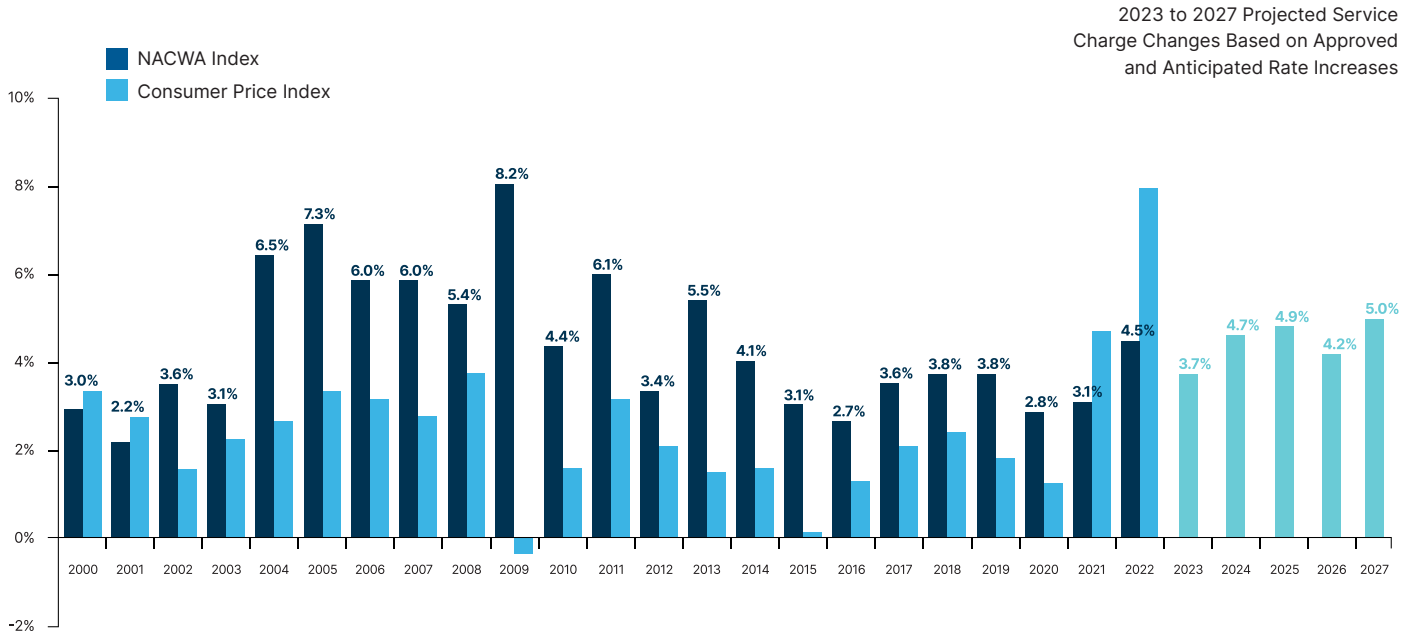
NACWA's 2022 *Cost of Clean Water Index* indicates that the average cost of wastewater services rose 4.5 percent in 2022. The average increase was the highest reported since 2013, but lower than the increase in the rate of inflation as measured by the Consumer Price Index (CPI) (see *Annual Change in Cost of Clean Water Index vs. Inflation* chart on page 2). This marks the second straight year that national charges for wastewater collection and treatment services have been outpaced by inflation.

In 2022, the national average amount that a single-family residence paid for wastewater services was \$569. Wastewater service charges vary widely among EPA regions and states, and are affected by demographics, geography, system age, regulatory requirements, and a range of other issues. To illustrate these variations, the *Regional Average Annual Charge* map (above) shows a breakdown of average charges by EPA region. The average service charge by Region varies from a low of \$334 in EPA Region 8 to a high of \$1,000 in EPA Region 1.



Annual Change in Cost of Clean Water

Index vs. Inflation



The *Annual Change in Cost of Clean Water Index vs. Inflation* chart (above) presents a national snapshot of the increase in service charges, as compared to inflation, since 2000. Table A-1 provides additional detail, including a breakdown of *NACWA Index* values and service charges back to 1985, the base year for the *Index*. The values for 2022 are based on the responses from 173 NACWA members serving over 107 million people.

Customers pay for sewer services in a variety of ways. Charges may be based on property values, gallons of water used, on a flat rate, or include some combination of these values. Because of this variability, the *NACWA Index* uses what the average single-family residence pays annually because it is a more consistent measure to track the cost of services over time. In 2022, the majority of clean water utilities implemented rate structures that resulted in increases in the average annual household service charge. However, in some communities, volume-based rates increased, but average service charges dropped due to reductions in actual or estimated residential water use or decreased revenues. Additional national and regional data are included in Tables A-1 and A-3.

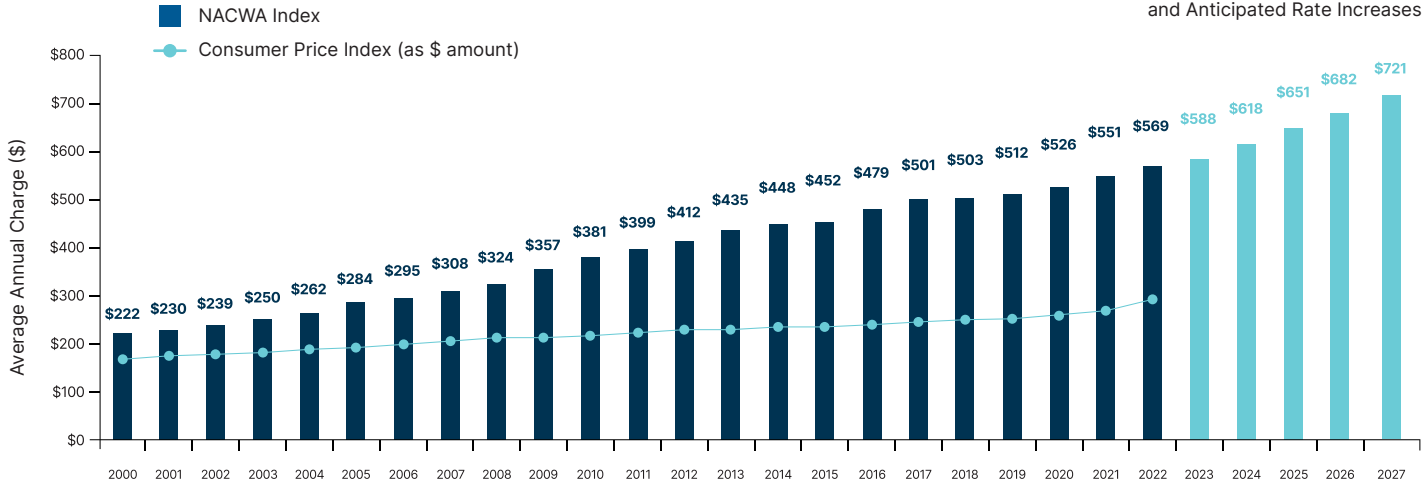
Average Annual Service Charge Has Doubled in Past 17 Years

The *Average Annual Service Charge* chart (page 3) presents a national snapshot of wastewater service charges since 2000 and provides a projection of average charges through 2027. In comparison to the Consumer Price Index (CPI), the annual sewer service charge has increased at double the rate of the CPI since 2000 and has doubled in value since 2005. The average annual sewer charge of \$569 represents 2.0 percent of the 2022 Federal poverty income threshold (\$27,750) for a family of four.



Average Annual Service Charge

2000 – 2022 & Projected



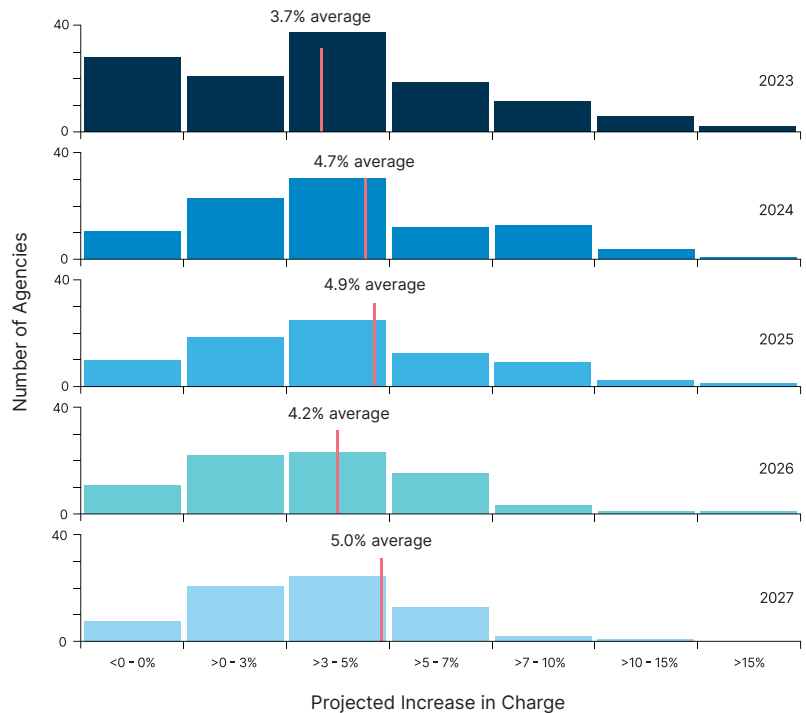
Rate Increases Projected to Climb Higher for 2023 to 2027

Fewer agencies reported no change in rates for the upcoming two years than in the 2021 survey. Many agencies appear to be offsetting delayed rate increases due to the pandemic and adjusting rates higher than in previous years to keep pace with inflationary costs and regulatory requirements. Projected rate increases in the 3 to 5 percent category were predominate among those agencies providing estimates.

From 2023-2027, rates are projected to rise approximately 4 to 5 percent per year (see *Projected Increases in Charges* chart which shows the distribution of projected increases in charges among agency respondents). Increasing costs due to inflation impacts on both O&M and capital spending, as well as costs of consent decree and regulatory compliance with nutrients, CSOs, and sewer system improvements were the top reasons cited by respondents for large projected rate increases. Other related drivers for rate increases included: replacement of aging infrastructure, plant improvements, plant construction due to growth, and decreases in per capita consumption.

Projected Increases in Charges

2023 - 2027



Disclaimers: The NACWA Index strives to use the best available data each year when determining current and historical household charges and trends. These data are intended for comparison purposes only, and are subject to change from one year to the next. While this document presents the most up-to-date data available, if better data become available in the future, the data presented here may be modified.

Additional data and information on the NACWA Index and past year's surveys are available on NACWA's website.



Databases, Tables & Calculators by Subject

Change Output Options:

From: 2013 ▼ To: 2023 ▼  include graphs include annual averages[More Formatting Options](#) 

Data extracted on: August 10, 2023 (9:46:29 AM)

CPI for Urban Wage Earners and Clerical Workers (CPI-W)

Series Id: CWUR0000SA0

Not Seasonally Adjusted

Series Title: All items in U.S. city average, urban wage earners and clerical workers, not seasonally adjusted**Area:** U.S. city average**Item:** All items**Base Period:** 1982-84=100Download:  [xlsx](#)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	HALF1	HALF2
2013	226.520	228.677	229.323	228.949	229.399	230.002	230.084	230.359	230.537	229.735	229.133	229.174	229.324	228.812	229.837
2014	230.040	230.871	232.560	233.443	234.216	234.702	234.525	234.030	234.170	233.229	231.551	229.909	232.771	232.639	232.902
2015	228.294	229.421	231.055	231.520	232.908	233.804	233.806	233.366	232.661	232.373	231.721	230.791	231.810	231.167	232.453
2016	231.061	230.972	232.209	233.438	234.436	235.289	234.771	234.904	235.495	235.732	235.215	235.390	234.076	232.901	235.251
2017	236.854	237.477	237.656	238.432	238.609	238.813	238.617	239.448	240.939	240.573	240.666	240.526	239.051	237.974	240.128
2018	241.919	242.988	243.463	244.607	245.770	246.196	246.155	246.336	246.565	247.038	245.933	244.786	245.146	244.157	246.136
2019	245.133	246.218	247.768	249.332	249.871	249.747	250.236	250.112	250.251	250.894	250.644	250.452	249.222	248.012	250.432
2020	251.361	251.935	251.375	249.515	249.521	251.054	252.636	253.597	254.004	254.076	253.826	254.081	252.248	250.794	253.703
2021	255.296	256.843	258.935	261.237	263.612	266.412	267.789	268.387	269.086	271.552	273.042	273.925	265.510	260.389	270.630
2022	276.296	278.943	283.176	284.575	288.022	292.542	292.219	291.629	291.854	293.003	292.495	291.051	287.984	283.926	292.042
2023	293.565	295.057	296.021	297.730	298.382	299.394	299.899							296.692	

12-Month Percent Change

Series Id: CWUR0000SA0

Not Seasonally Adjusted

Series Title: All items in U.S. city average, urban wage earners and clerical workers, not seasonally adjusted**Area:** U.S. city average**Item:** All items**Base Period:** 1982-84=100Download:  [xlsx](#)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	HALF1	HALF2
2013	1.5	1.9	1.3	0.9	1.2	1.8	2.0	1.5	1.0	0.8	1.1	1.5	1.4	1.4	1.3
2014	1.6	1.0	1.4	2.0	2.1	2.0	1.9	1.6	1.6	1.5	1.1	0.3	1.5	1.7	1.3
2015	-0.8	-0.6	-0.6	-0.8	-0.6	-0.4	-0.3	-0.3	-0.6	-0.4	0.1	0.4	-0.4	-0.6	-0.2
2016	1.2	0.7	0.5	0.8	0.7	0.6	0.4	0.7	1.2	1.4	1.5	2.0	1.0	0.8	1.2
2017	2.5	2.8	2.3	2.1	1.8	1.5	1.6	1.9	2.3	2.1	2.3	2.2	2.1	2.2	2.1
2018	2.1	2.3	2.4	2.6	3.0	3.1	3.2	2.9	2.3	2.7	2.2	1.8	2.5	2.6	2.5
2019	1.3	1.3	1.8	1.9	1.7	1.4	1.7	1.5	1.5	1.6	1.9	2.3	1.7	1.6	1.7
2020	2.5	2.3	1.5	0.1	-0.1	0.5	1.0	1.4	1.5	1.3	1.3	1.4	1.2	1.1	1.3
2021	1.6	1.9	3.0	4.7	5.6	6.1	6.0	5.8	5.9	6.9	7.6	7.8	5.3	3.8	6.7
2022	8.2	8.6	9.4	8.9	9.3	9.8	9.1	8.7	8.5	7.9	7.1	6.3	8.5	9.0	7.9
2023	6.3	5.8	4.5	4.6	3.6	2.3	2.6							4.5	

U.S. BUREAU OF LABOR STATISTICS Postal Square Building 2 Massachusetts Avenue NE Washington, DC 20212-0001

Telephone:1-202-691-5200_ Telecommunications Relay Service:7-1-1_ www.bls.gov [Contact Us](#)



Draft

2021 Rate Study

Prepared By:



City of Belle Meade

2021 Wastewater Rate Study

Introduction

Purpose

The purpose of this report is to present a rate study to assist the City of Belle Meade (City) in determining if the current wastewater rates are sufficient for the following:

- Provide an income to meet all expenses, including depreciation.
- Ensure compliance with TCA § 68-221-1010 (included at the end of this report).
- Provide sufficient cash to fund the City's Five-Year Capital Improvement Plan (CIP).

RateStudies LLC was hired to perform this analysis.

Methodology

The methodology used by RateStudies is based on the *American Water Works Association (AWWA) M54 Manual - Developing Rates for Small Systems*. Although rate studies are not an exact science, this report's financial models can be a valuable tool for making financial decisions and setting wastewater rates. Considerations are made to simplify the rate study process to be understandable to utility officials, managers, staff, and customers.

This report presents a comprehensive financial analysis of the City's wastewater system, including a historical 4-year view and a 5-year projection of customer growth, revenue, and expenses. The City's 5-year Capital Improvement Plan and its impact on depreciation are included. The City's staff aided in collecting historical data, developing the Capital Improvement Plan, growth projections, financial projections, and the final recommendations of this report.

This study uses a Cash Flow Analysis and a Change in Net Position Analysis to determine the need for rate increases. Each of these gives an indication of financial stability for the City's wastewater system. Such information is presented in Excel spreadsheets designed to function as digital financial models. Graphs and charts are used to give a visual presentation of each analysis.

The Cash Flow Analysis includes income, expenses, capital improvements, and financing methods for the City's five-year capital improvement plan. The Change in Net Position Analysis contains similar information but includes depreciation as an expense and does not incorporate the City's five-year capital improvement plan. The Change in Net Position Analysis will determine if a rate increase is needed and how much.

Significant Events and Factors

Factors affecting this analysis are the following conditions or significant plans:

- The City's wastewater usage and revenue have declined each year since fiscal year (FY) 2017 and is projected to continue to decline over the next five years.
- Growth in new customers is minimal, with about 5 new customers per year.
- The five-year Capital Improvement Plan (CIP) for the wastewater system totals \$1,775,000 and will add \$146,250 in additional depreciation.
- The City plans to add an additional force main to improve the operation of the wastewater system.
- The additional force main will be financed from the wastewater system's local government investment pool (LGIP).
- Metro, which treats the City's wastewater, increases its rates on an average of 1.5% annually.
- The City has not had a rate increase since 2017.

Recommendations

Based on the projections over the next five years and a review of the Cash Flow Analysis and the Change in Net Position Analysis, it is recommended to increase rates as noted in **Figure 1**.

Proposed Rate Increase					
	2022	2023	2024	2025	2026
Rate Increase	10%	2%	2%	2%	2%

Figure 1

Other Considerations

This report's recommendations are designed to improve the City's finances and meet the requirements of the Tennessee Comptroller over the next five years. It is further recommended to monitor and verify projections presented in this report on an annual basis and to react to unforeseen financial changes and make corrections, as necessary.

Customer Growth and Revenue Projections

Overview

The City depends on customers' revenue to pay for all the wastewater department needs, including the cost of operation, maintenance, depreciation, and capital expenses. A review and analysis of the previous four years of records provide a reasonable basis for making growth and revenue projections over the next five years. The City's begins its fiscal year (FY) on July 1.

Customer Growth

The City's wastewater customer growth has been minimal since FY 2017. The customer base grew by a net of four customers. The customer base is projected to grow by five customers per year over the next five years. The five customers per year represent a 0.05% growth.

Revenue Projections

Wastewater revenue is based on the total amount of water metered for all wastewater customers. Metro reads the water meter and bills the customers for water and wastewater. The wastewater portion of the bill is based on the City's wastewater rates. Metro then subtracts out their fees and remits the remainder back to the City, which is the City's "revenue." The amount of water bought from FY 2017-2020 decreased significantly. Revenue also declined, as shown in **Figures 2 and 3**. The reasons for the decrease in usage and revenue are unknown. Generally, factors causing a decrease would include annual rainfall, the water meters' age (older meters run slower), and customers using water-saving devices.

Customer and Revenue Projections										
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Customers	1,054	1,059	1,052	1,058	1,063	1,068	1,073	1,078	1,083	1,088
New Customers Added		5	(7)	6	5	5	5	5	5	5
Percent Change		0.5%	-0.7%	0.6%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Water Bought by Cust	12.9	12.8	12.4	11.7	11.7	11.8	11.8	11.9	11.9	12.0
Percent Change		-0.6%	-3.2%	-6.0%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Average Usage Per Cust Per Month CCF	10.2	10.1	9.8	9.2	9.2	9.2	9.2	9.2	9.2	9.2
Annual Revenue	\$475,231	\$474,328	\$468,674	\$461,609	\$456,866	\$452,162	\$447,497	\$442,869	\$438,281	\$433,730
Percent Change		-0.2%	-1.2%	-1.5%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%

Figure 2

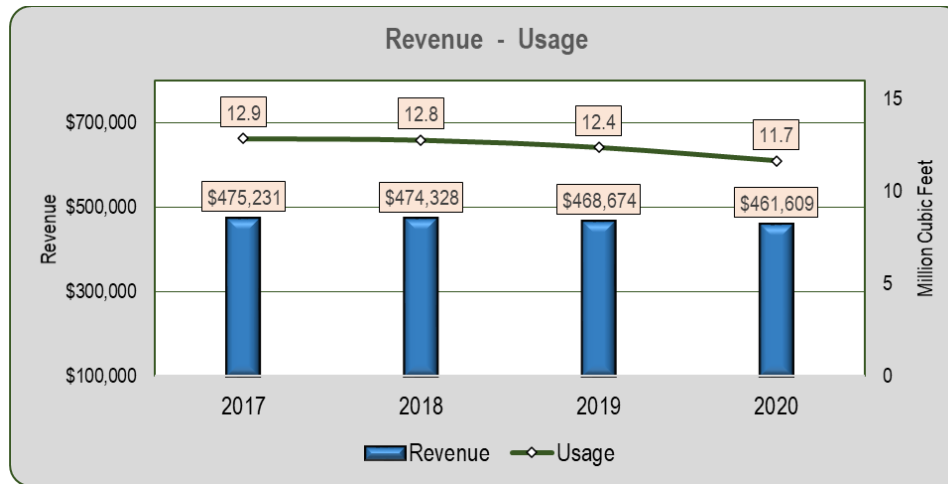


Figure 3

If the City's usage were constant each year, its revenue would still decrease because Metro increases its rates yearly by an average of 1.5%. The increase varies each year because it is determined by the annual change in the Consumer Price Index – Urban (CIP-U). Metro re-calibrates its sewer rates every five years, then applies the CIP-U each year after that. With revenues increasing about 0.5% by adding new customers but decreasing 1.5% because of Metro's increases, revenues are projected to decline 1% each year. Figure 4 shows the Metro increases for FY 2016-2020.

Metro Wholesale Rate Increases						
	2016	2017	2018	2019	2020	Average
Rate Per 100 Cubic Feet	\$1.32	\$1.34	\$1.37	\$1.38	\$1.40	
% Increase		1.5%	2.2%	0.7%	1.4%	1.5%

Figure 4

Other Income

Figure 5 identifies other income besides revenue from customers.

Other Income											
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
Sewer Permits	1,200	1,100	1,300	1,200	2,400	2,400	2,400	2,400	2,400	2,400	
Installation Charges	102,241	67,256	75,852	61,187	65,000	65,000	65,000	65,000	65,000	65,000	
Sewer Tap Fees	12,000	11,000	13,000	13,000	24,000	24,000	24,000	24,000	24,000	24,000	
Miscellaneous	283		1,952		500	500	500	500	500	500	
Total Other Income	115,724	79,356	92,104	75,387	91,900	91,900	91,900	91,900	91,900	91,900	

Figure 5

Capital Improvement Plan

Overview

A Capital Improvement Plan (CIP) is an unaudited planning document used to identify needed capital improvements and other assets, along with methods of financing. Capital assets are defined by the City as assets with an original cost of \$5,000 or more and a useful life of more than three years.

Anticipated Projects

The City's CIP, shown in **Figure 6**, lists anticipated capital improvements and other capital assets, estimated cost, proposed financing, and the year in which each expense would occur.

Financing Future Expenditures

The Capacity Improvement projects are recommended to be financed by accumulated funds in the Local Government Investment Pool (LGIP). Other capital expenses are recommended to be funded through available cash.

Capital Improvement Plan (CIP)									
Capital Expenses	Cost	Financing		2021	2022	2023	2024	2025	2026
		Cash	LGIP						
Capacity Improvement Project	1,000,000	400,000	800,000	200,000	200,000	200,000	200,000	200,000	200,000
Annual Capital Expenses	155,000	155,000		155,000					
Annual Capital Expenses	155,000	155,000			155,000				
Annual Capital Expenses	155,000	155,000				155,000			
Annual Capital Expenses	155,000	155,000					155,000		
Annual Capital Expenses	155,000	155,000						155,000	
Annual Capital Expenses	155,000	155,000							155,000
Total	930,000	930,000	800,000	355,000	355,000	355,000	355,000	355,000	355,000

	2017	2018	2019	2020	AVG
Previous Annual Capital Expenses	110,510	191,950	114,726	112,484	132,418

Figure 6

Depreciation

Overview

Depreciation is a reduction in the value of an asset with the passage of time due to wear and tear. Although depreciation is listed as an expense, it is not paid out to anyone; it remains within the City’s cash reserves. Funding depreciation is a process compelling the City to accumulate cash. Over time the accumulated depreciation equals the value of money initially spent on each capital asset. This process allows the City to have enough funds to finance new capital improvements or replace depreciated assets, such as vehicles, pumps, etc. **Figure 7** shows the amount of annual depreciation of each capital expenditure listed in the CIP.

Depreciation for Capital Improvement Plan							
Capital Expenditures	Life - Yrs	2021	2022	2023	2024	2025	2026
Capacity Improvement Project	40	5,000	10,000	15,000	20,000	25,000	30,000
Annual Capital Expenses	8	19,375	19,375	19,375	19,375	19,375	19,375
Annual Capital Expenses	8		19,375	19,375	19,375	19,375	19,375
Annual Capital Expenses	8			19,375	19,375	19,375	19,375
Annual Capital Expenses	8				19,375	19,375	19,375
Annual Capital Expenses	8					19,375	19,375
Annual Capital Expenses	8						19,375
Total		24,375	48,750	73,125	97,500	121,875	146,250

Figure 7

Figure 8 is a simplified depreciation schedule showing the past four years and projections for the next five. Without any additions to wastewater system fixed assets, the current wastewater depreciation schedule decreases from \$236,193 in FY 2020 to \$73,321 in FY 2025. The sizeable reduction in depreciation is due to the original wastewater system (started in 1983) being completely depreciated, reducing expenses by \$115,250. However, new additions proposed in the CIP will add \$121,875 in new depreciation. **Figure 9** shows a graphical representation of scheduled depreciation of existing assets and additional depreciation of new assets placed in service via the anticipated capital improvement projects.

Requirement

Tennessee state law requires that all utility systems depreciate capital assets. The Governmental Accounting Standards Board (GASB) requires depreciation is to be an operating expense in the “Statement of Revenues, Expenses, and Change in Net Position” section of the annual audit. Therefore, the utility must provide sufficient revenue to “fund” the depreciation expense.

Calculating the Costs

Although several methods of determining depreciation, the “straight line” method is used by the City. The calculation is simply dividing the cost of an asset by its useful life. Depreciation has been calculated on each class of depreciable property using the straight-line method. The City defines a capital asset as having a value of \$5,000 or more and having a useful life of more than one year.

The depreciation schedule is a listing of each asset, its original cost, the year it went into service, and its useful life. An annual depreciation amount is determined, the accumulated depreciated amount is calculated, and the book value is determined. When the accumulated depreciated amount equals the original cost, the book value goes to zero. The annual amount of depreciation also goes to zero. Unless new assets are added, the total annual depreciation will either stay the same or eventually go away.

Other Considerations

Assets are to be depreciated regardless of the method of financing, including assets acquired with grants or purchased by developers. An asset begins to depreciate when placed into service, not when it is bought or under construction.

Depreciation										
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Scheduled Depreciation	240,191	245,839	245,146	236,193	236,193	223,488	219,127	92,094	73,321	54,307
Five-Year CIP Depreciation					24,375	48,750	73,125	97,500	121,875	146,250
Total Depreciation	240,191	245,839	245,146	236,193	260,568	272,238	292,252	189,594	195,196	200,557

Figure 8

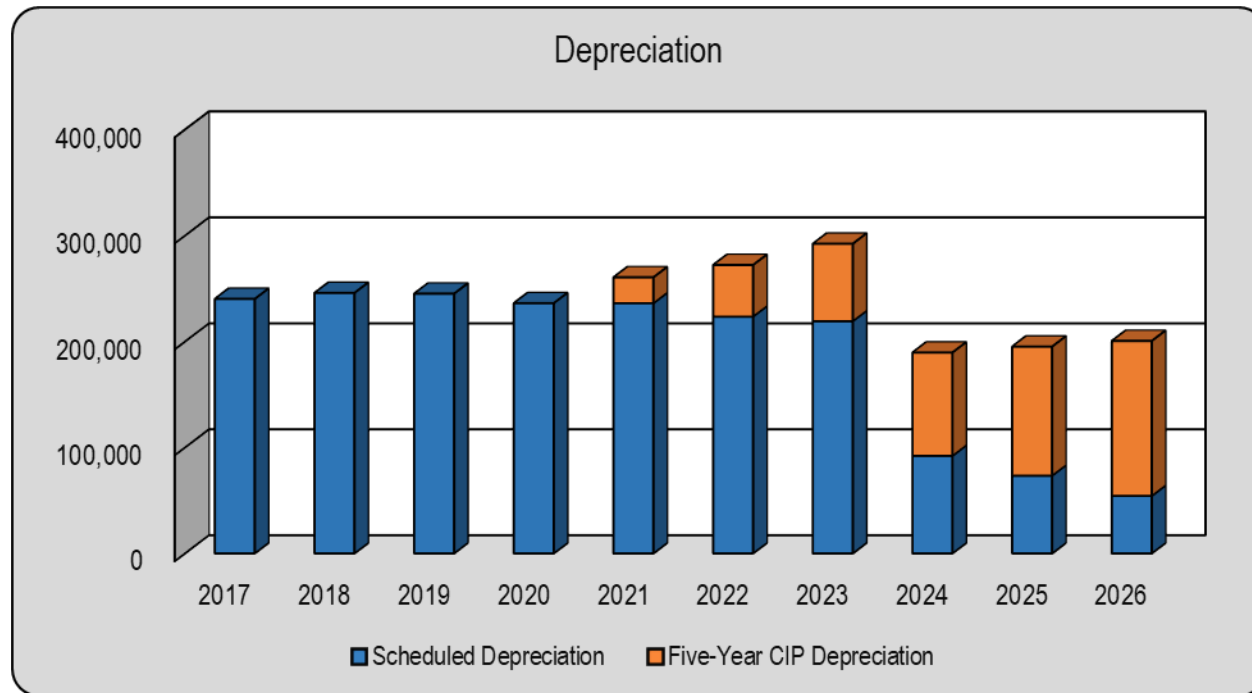


Figure 9

General Expenses

Overview

General expenses are listed in the annual audit report's "Statement of Revenues, Expenses, and Changes in Net Position" page. Items such as salaries and benefits, repair and maintenance, operating supplies, and other operating expenses are included. Depreciation is an expense and is included in the Change in Net Position Analysis but is not shown as an expense in the Cash Flow Analysis. The City's trial balance sheets were used as a more detailed accounting of the wastewater general expenses.

Methodology

Work sessions were held with the City's staff to make projections of each line item listed. The cost of each expense for the previous four years was used in determining the projections for the next five years. The wastewater's FY 2020 budget and the actual cost from July 1 through December 31 helped determine the projected cost for the current FY 2021.

Analysis

Although the total cost of the expenses has varied over the past four years, it is the staff's consensus that future costs will increase about five percent per year for FY 2022 – FY 2025. The most significant line-item increase is the cost of chemicals used for odor control, which is estimated to cost about 32% in FY 2021, more than the year before. **Figure 10** shows a summary of the total expenses with a graphical representation.

Other Considerations

For a small city like Belle Meade, operating expenses can vary widely from year to year. A significant repair item or the need to buy large quantities of materials & supplies can make a difference in general expenses. A considerable, unexpected expense would have a negative impact on the Cash Flow and the Change in Net Position.

General Expenses										
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Salaries	40,935	45,923	45,678	43,607	45,090	46,894	48,769	50,720	52,749	54,859
Oasi (Employer's Share)	3,077	3,478	3,450	3,110	3,449	3,587	3,730	3,880	4,035	4,196
Health And Dental Insurance	102	69	75	4,858	5,917	6,213	6,523	6,850	7,192	7,552
Retirement - Current	2,879	3,574	3,813	3,548	3,607	3,751	3,901	4,057	4,220	4,388
Employee Education And Training	495	195		250	800	840	882	926	972	1,021
Telephone And Telegraph	1,227	1,051	1,236	1,013	1,200	1,260	1,323	1,389	1,459	1,532
Other Professional Svcs.	6,244	4,983	6,136	9,268	10,730	10,945	11,163	11,387	11,614	11,847
Repair And Maintenance Services	19,370	52,070	43,443	58,434	50,000	52,500	55,125	57,881	60,775	63,814
Repair & Maint.-Motor Vehicles	1,205	2,169	344	1,144	750	825	908	998	1,098	1,208
Office Supplies & Refreshments			804	42	400	408	416	424	433	442
Operating Supplies	353	631	1,933	42	400	408	416	424	433	442
Chemicals	82,104	99,808	86,172	93,440	123,000	129,150	135,608	142,388	149,507	156,983
Clothing And Uniforms	1,097	1,146	915	1,497	1,330	1,357	1,384	1,411	1,440	1,468
Gas, Oil, Diesel Fuel, Grease, Etc.	2,734	2,543	2,368	2,303	4,235	4,320	4,406	4,494	4,584	4,676
Consumable Tools	349	328	345	114	400	420	441	463	486	511
Insurance	5,344	4,844	4,886	4,491	5,400	5,670	5,954	6,251	6,564	6,892
Total Expenses	167,513	222,810	201,599	227,163	256,708	268,547	280,950	293,945	307,561	321,829
<i>Percent Change</i>		33%	-10%	13%	13%	5%	5%	5%	5%	5%

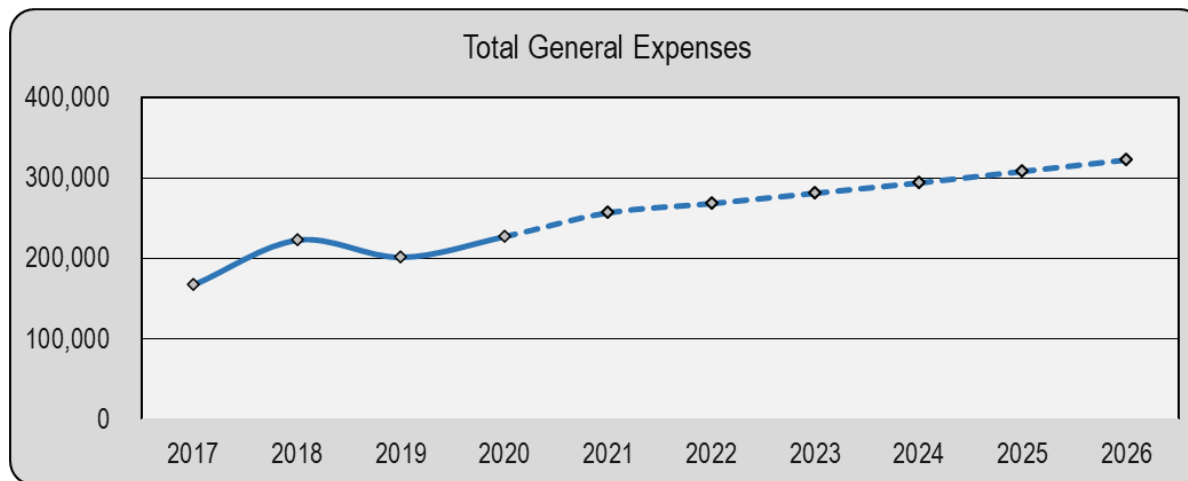


Figure 10

Cash Flow Analysis with No Rate Increases

Overview

It is essential for the City to know the amount of cash it has on hand and whether its cash reserves are growing or being depleted. Cash is necessary to pay for the utility's operational and maintenance needs, debt service payments, and capital expenditures to preserve its infrastructure. Also, cash is needed to retain its staff, deliver services to customers, and maintain a healthy cash reserve. Therefore, it is vital to predicting its anticipated expenditures and how much cash the City expects to receive from its customers and other sources. Such an examination is called a Cash Flow Analysis. If the projected Cash Flow reaches an amount detrimental to the City's wastewater operation, then a rate increase is needed.

Methodology

The Cash Flow Analysis is configured like a cash budget showing the amount of cash at the beginning of the fiscal year, the amount of income (including customer charges and miscellaneous fees), general expenses, and debt payment. The Cash Flow Analysis does not include depreciation as an expense. Adding income and subtracting expenses provides the amount of cash available for capital expenses or adding to the cash reserves. Additional financing from contributions (tap and connection fees), loans, and grants are also included. The City operates on an accrual accounting basis, so an accrual adjustment line item is added to facilitate a cash amount at the end of the year. It is difficult to project the accrual adjustment (reconciliation of operating income) in future years, so it is not included in the projected years. The cash balance at the end of one year becomes the amount of cash available at the beginning of the following year.

The Cash Flow Analysis is developed without rate increases to provide a base for understanding the current rates' effectiveness and the need for future rate increases.

Figure 11 shows the Cash Flow Analysis with no rate increases over the next five years. The income less expenses show a decline in cash from FY 2019 – 2020 and are projected to continually decline through FY 2025. The cash flow also shows cash being transferred to the LPIG through FY 2020, but \$800,000 will be withdrawn to finance the CIP.

It is prudent for the City to maintain a cash reserve that is ample to cover emergencies and pay for items needing to be replaced unexpectedly. The extent of cash reserves required should be evaluated each year to determine if additional action is necessary regarding setting rates.

Figure 13 is a graphical representation of the Cash Flow Analysis showing total income, total expenses, and cash ending each year. The trend lines for the income and expenses are converging, indicating action needing to be taken before expenses become greater than the income.

Other considerations

Having a better understanding of cash flow and the accumulation or depletion of cash can support developing a multi-year capital improvement plan and future project financing.

Cash Flow Analysis - No Rate Increases										
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Cash Beginning Jul 1	125,000	23,937	75,771	91,623	169,133	506,191	826,707	1,130,154	1,415,978	1,283,597
Income										
Revenue	475,231	474,328	468,674	461,609	456,866	452,162	447,497	442,869	438,281	433,730
Other Income	115,724	79,356	92,104	75,387	91,900	91,900	91,900	91,900	91,900	91,900
Total Income	590,955	553,684	560,778	536,996	548,766	544,062	539,397	534,769	530,181	525,630
Expenses										
General Expenses	167,513	222,810	201,599	227,163	256,708	268,547	280,950	293,945	307,561	321,829
Income Less Expenses	423,441	330,874	359,180	309,833	292,058	275,516	258,447	240,824	222,619	203,801
Financing										
LGIP					200,000	200,000	200,000	200,000		
Capital Improvements										
Capital Improvements	110,510	191,950	114,726	112,484	355,000	355,000	355,000	355,000	355,000	355,000
Annual Net Gain (Loss)	312,931	138,924	244,454	197,349	137,058	120,516	103,447	85,824	(132,381)	(151,199)
Year End Cash										
Reconciliation	(4,864)	62,910	(48,602)	10,161						
Cash Ending June 30	433,067	225,771	271,623	299,133	306,191	626,707	930,154	1,215,978	1,283,597	1,132,398
LGIP Transfer	385,000	150,000	180,000	130,000	(200,000)	(200,000)	(200,000)	(200,000)	0	0
Available Cash	48,067	75,771	91,623	169,133	506,191	826,707	1,130,154	1,415,978	1,283,597	1,132,398
Interest	1,256	6,044	13,881	12,394	2,500	2,833	3,127	3,382	3,594	3,287
Accumulated LGIP	386,256	542,301	736,182	878,576	681,076	483,909	287,036	90,418	94,012	97,300
Total Cash with LGIP	434,323	618,072	827,805	1,047,709	1,187,267	1,310,616	1,417,190	1,506,396	1,377,610	1,229,698

Figure 11

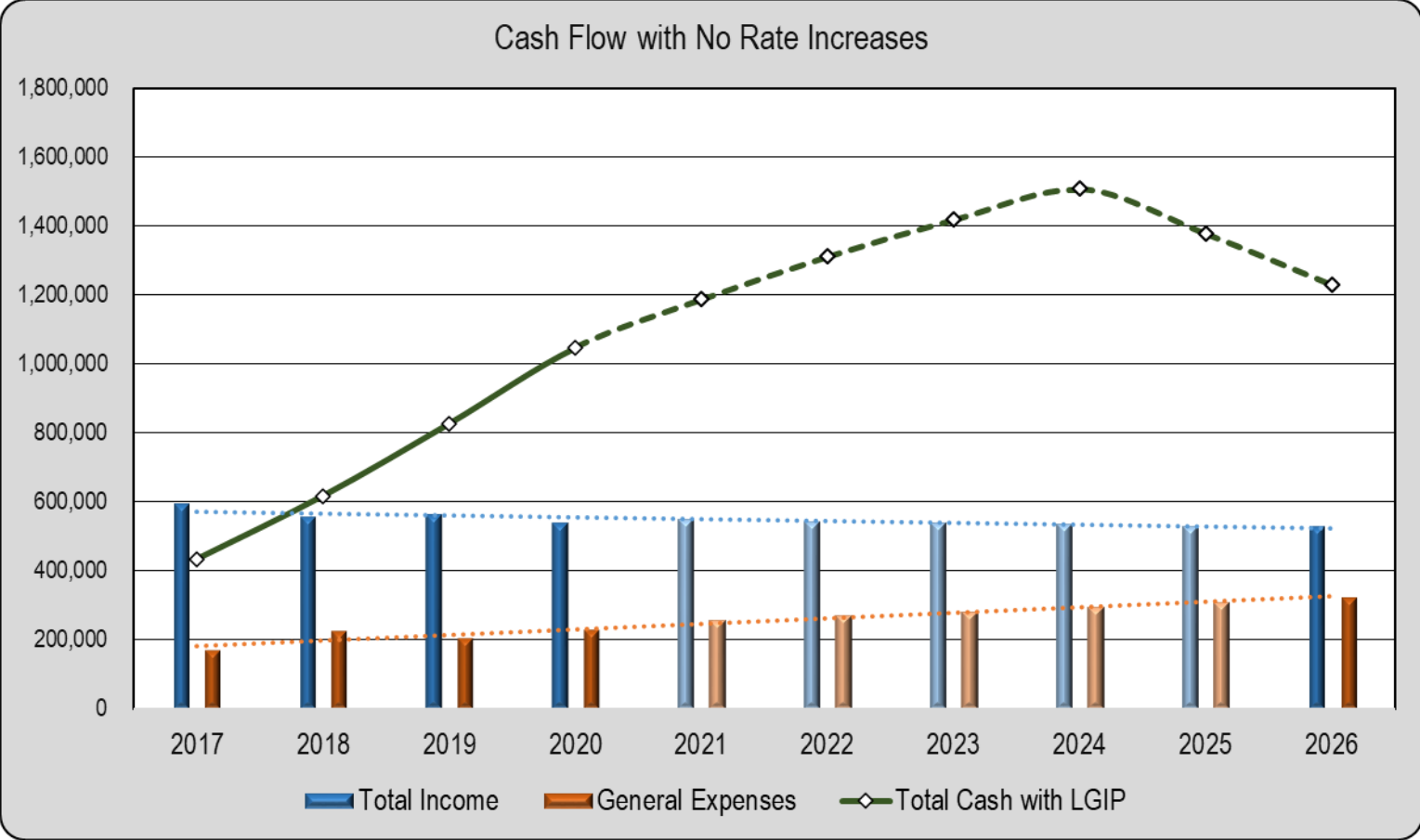


Figure 12

Change in Net Position Analysis with No Rate Increases

Overview

Net position is generally defined as assets minus liabilities. The City's wastewater assets include all cash (unrestricted and restricted), land, and the "net value" of everything owned, such as pipes in the ground, tanks, pumps, building, furniture, vehicles, and other purchases necessary to the operation of the utility. The net value is defined as the original cost of a capital asset less its accumulated depreciation. Each year there is a change in net position because of the amount of cash changes with increasing or decreasing revenues and expenses, and the amount of the net capital asset value changes because of new capital assets being purchased, all capital assets being depreciated, and possibly some capital assets being totally depreciated. This Change in Net Position is calculated in a section of the City's audit report called "Statement of Revenues, Expenses, and Changes in the Net Position." The Change in Net Position Analysis in this report contains the same data and information in that annual audit section.

Methodology

The Change in Net Position Analysis is different from the Cash Flow Analysis. It includes depreciation as an operating expense. However, it does not have the amount of money paid for capital improvements. The change in net position does not flow from one year to the next like the cash flow. Instead, the change in net position is calculated each year. TCA § 68-221-1010 states the City is subject to actions by the Water and Wastewater Financing Board if the Change in Net Position is negative for two consecutive years.

The Change in Net Position Analysis is developed without rate increases to provide a base of understanding the current rates' effectiveness and the need for future rate increases.

Figure 13 is the Change in Net Position Analysis with a graphical representation. The Change in Net Position has been declining since FY 2019 and is projected to be negative in FY 2023. The reduction in depreciation in FY 2024 and FY 2025 creates a positive Change in Net Position for those years. The depreciation decrease is due to the original wastewater system being fully depreciated, saving an annual operating expense of \$115,250.

Just as the cash flow is indicating future financial challenges, so is the change in net position. Although the City gets a big financial break due to the total depreciation of the original system, the operating income shows a continual decline in FY 2025 – 2026.

Although best intentions and thoughtful analysis are applied in making projections, there is a margin of error to be considered when evaluating the results. The change in net position of \$6,111 in FY 2022 and \$6,531 in FY 2026 may be lower because of the margin of error in making projections. It is best not to rely on such low projections. Increases in rates should be sufficient to produce at least \$100,000 in change net position.

Change in Net Position - No Rate Increases										
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Operating Revenue										
Revenue	475,231	474,328	468,674	461,609	456,866	452,162	447,497	442,869	438,281	433,730
Other Income	115,724	79,356	92,104	75,387	91,900	91,900	91,900	91,900	91,900	91,900
Total Operating Revenue	590,955	553,684	560,778	536,996	548,766	544,062	539,397	534,769	530,181	525,630
Operating Expenses										
General Expenses	167,512	222,809	201,599	227,163	256,708	268,547	280,950	293,945	307,561	321,829
Depreciation	240,191	245,839	245,146	249,155	260,568	272,238	292,252	189,594	195,196	200,557
Total Expenses	407,703	468,648	446,745	476,318	517,276	540,785	573,202	483,539	502,758	522,386
Operating Income (Loss)	183,251	85,036	114,034	60,678	31,491	3,278	(33,805)	51,230	27,423	3,244
Non-operating Income										
Interest	1,257	6,044	13,881	12,394	2,500	2,833	3,127	3,382	3,594	3,287
Change in Net Position										
Change in Net Position	184,508	91,080	127,915	73,072	33,991	6,111	(30,678)	54,612	31,017	6,531

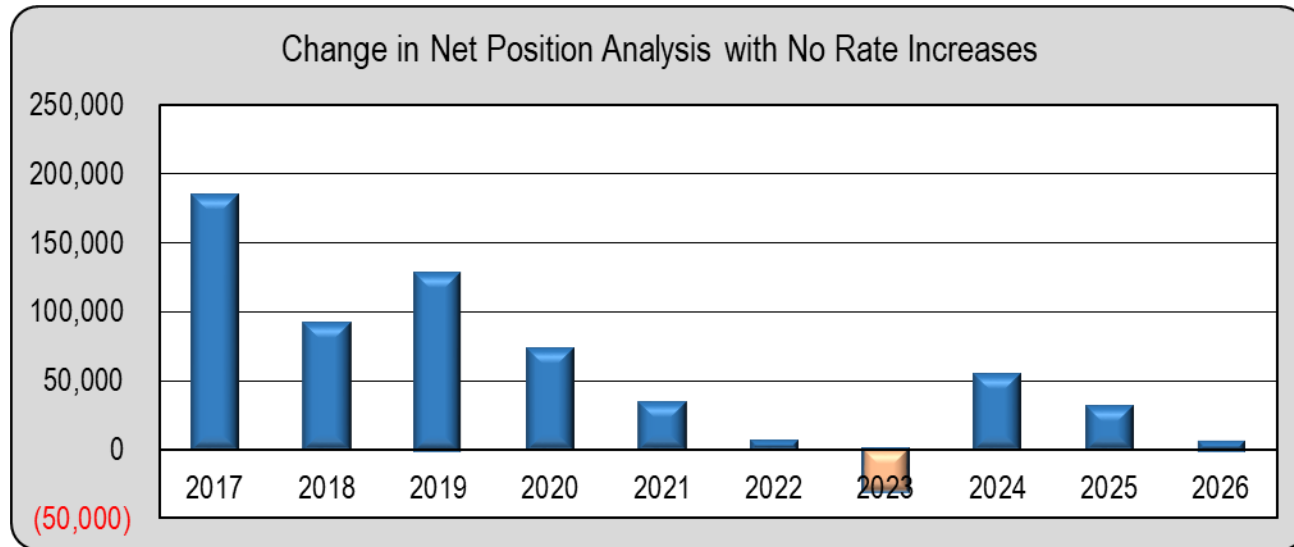


Figure 13

Cash Flow Analysis with Rate Increases

Figure 14 shows the Cash Flow Analysis with the recommended annual rate increases. Although the City has sufficient cash through FY 2026, the amount of change in net position demonstrates a greater need for rate increases. However, the proposed rates also improve the revenue trend, as shown in **Figure 15** of the Cash Flow Analysis.

Cash Flow Analysis - With Rate Increases										
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Cash Beginning Jul 1	125,000	23,937	75,771	91,623	169,133	506,191	871,923	1,229,965	1,579,757	1,520,713
Income										
Revenue	475,231	474,328	468,674	461,609	456,866	497,378	502,091	506,837	511,617	516,431
Rate Increase						10%	2%	2%	2%	2%
Other Income	115,724	79,356	92,104	75,387	91,900	91,900	91,900	91,900	91,900	91,900
Total Income	590,955	553,684	560,778	536,996	548,766	589,278	593,991	598,737	603,517	608,331
Expenses										
General Expenses	167,513	222,810	201,599	227,163	256,708	268,547	280,950	293,945	307,561	321,829
Income Less Expenses	423,441	330,874	359,180	309,833	292,058	320,732	313,041	304,792	295,956	286,502
Financing										
LGIP					200,000	200,000	200,000	200,000		
Capital Improvements										
Capital Improvements	110,510	191,950	114,726	112,484	355,000	355,000	355,000	355,000	355,000	355,000
Annual Net Gain (Loss)	312,931	138,924	244,454	197,349	137,058	165,732	158,041	149,792	(59,044)	(68,498)
Year End Cash										
Reconciliation	(4,864)	62,910	(48,602)	10,161						
Cash Ending June 30	433,067	225,771	271,623	299,133	306,191	671,923	1,029,965	1,379,757	1,520,713	1,452,216
LGIP Transfer	385,000	150,000	180,000	130,000	(200,000)	(200,000)	(200,000)	(200,000)		
Available Cash	48,067	75,771	91,623	169,133	506,191	871,923	1,229,965	1,579,757	1,520,713	1,452,216
Interest	1,256	6,044	13,881	12,394	2,500	2,833	3,235	3,620	3,986	3,855
Accumulated LGIP	386,256	542,301	736,182	878,576	681,076	483,909	287,144	90,764	94,750	98,605
Total Cash with LGIP	434,323	618,072	827,805	1,047,709	1,187,267	1,355,832	1,517,109	1,670,522	1,615,464	1,550,821

Figure 14

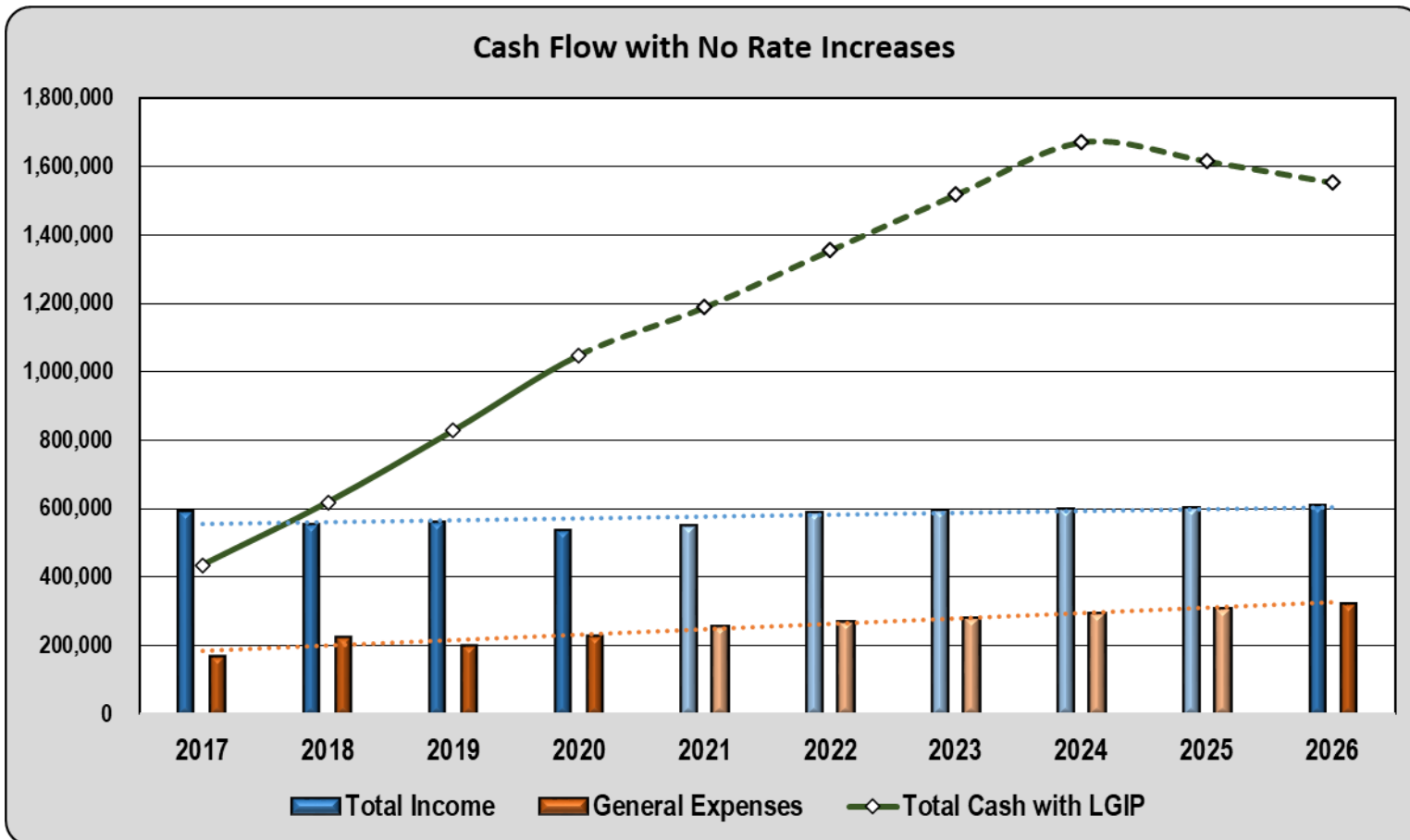


Figure 15

Change in Net Position Analysis with Rate Increases

Figure 16 is the Change in Net Position Analysis with rate increases, and **Figure 17** is the graphical representation. Although the recommended rate increases the change in net position to a safe level, there is a declining trend for FY 2024 – FY 2026. The City should monitor the change in net position annually and take appropriate action for any unforeseen changes in income and/or expenses.

Change in Net Position - With Rate Increases										
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Operating Revenue										
Revenue	475,231	474,328	468,674	461,609	456,866	497,378	502,091	506,837	511,617	516,431
Other Income	115,724	79,356	92,104	75,387	91,900	91,900	91,900	91,900	91,900	91,900
Total Operating Revenue	590,955	553,684	560,778	536,996	548,766	589,278	593,991	598,737	603,517	608,331
Operating Expenses										
General Expenses	167,512	222,809	201,599	227,163	256,708	268,547	280,950	293,945	307,561	321,829
Depreciation	240,191	245,839	245,146	249,155	260,568	272,238	292,252	189,594	195,196	200,557
Total Expenses	407,703	468,648	446,745	476,318	517,276	540,785	573,202	483,539	502,758	522,386
Operating Income (Loss)	183,251	85,036	114,034	60,678	31,491	48,494	20,790	115,198	100,760	85,946
Non-operating Income (Expenses) and Transfers										
Interest	1,257	6,044	13,881	12,394	2,500	2,833	3,235	3,620	3,986	3,855
Change in Net Position										
Change in Net Position	184,508	91,080	127,915	73,072	33,991	51,327	24,025	118,818	104,746	89,800

Figure 16

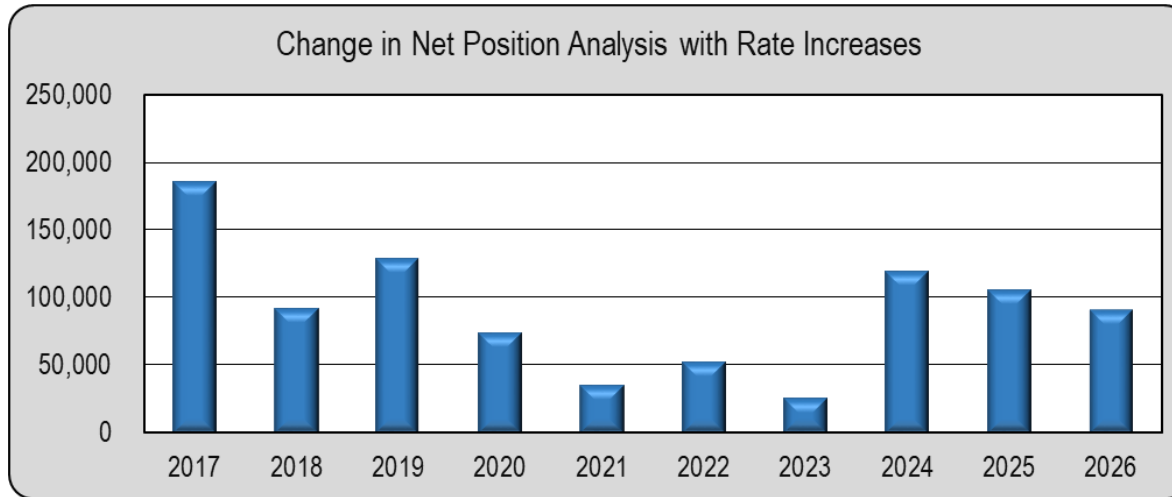


Figure 17

Figure 18 is a table showing the impact of the first year's 10% increase in rates. The average Belle Meade residential customer's monthly increase using 600 cubic feet of water will be \$4.34.

2021 Wastewater Rates		2022 Wastewater Rates			
Minimum		Minimum	% Inc.		
\$26.25		\$28.88	10%		
Per 100 Cubic Feet		Per 100 Cubic Feet			
\$2.85		\$3.14	10%		
Water Sold Cubic Feet	Monthly Charge	Water Sold 100 Cubic Feet	Monthly Charge	Percent Diff.	Percent Increase
200	\$31.95	200	\$35.15	\$3.20	10%
600	\$43.35	600	\$47.69	\$4.34	10%
800	\$49.05	800	\$53.96	\$4.91	10%
1,000	\$54.75	1,000	\$60.23	\$5.48	10%
2,500	\$97.50	2,500	\$107.25	\$9.75	10%
5,000	\$168.75	5,000	\$185.63	\$16.88	10%

Est. Avg. Monthly Bill

Figure 18

Comparison with other Cities and Utility Districts

Figure 19 is a comparison of monthly bills with four other cities and two utility districts. The average residential Belle Meade customer is estimated to use about 800 cubic feet of water per month or 6,000 gallons of water per month. The overall average usage for all customers, including churches and the Belle Meade Country Club, is about 10 ccf (1,000 cubic feet, or 7,500 gallons), as indicated in **Figure 2**.

The City remains competitive in rates with the other cities and utilities even after the recommended rate increase to be implemented on July 1, 2021.

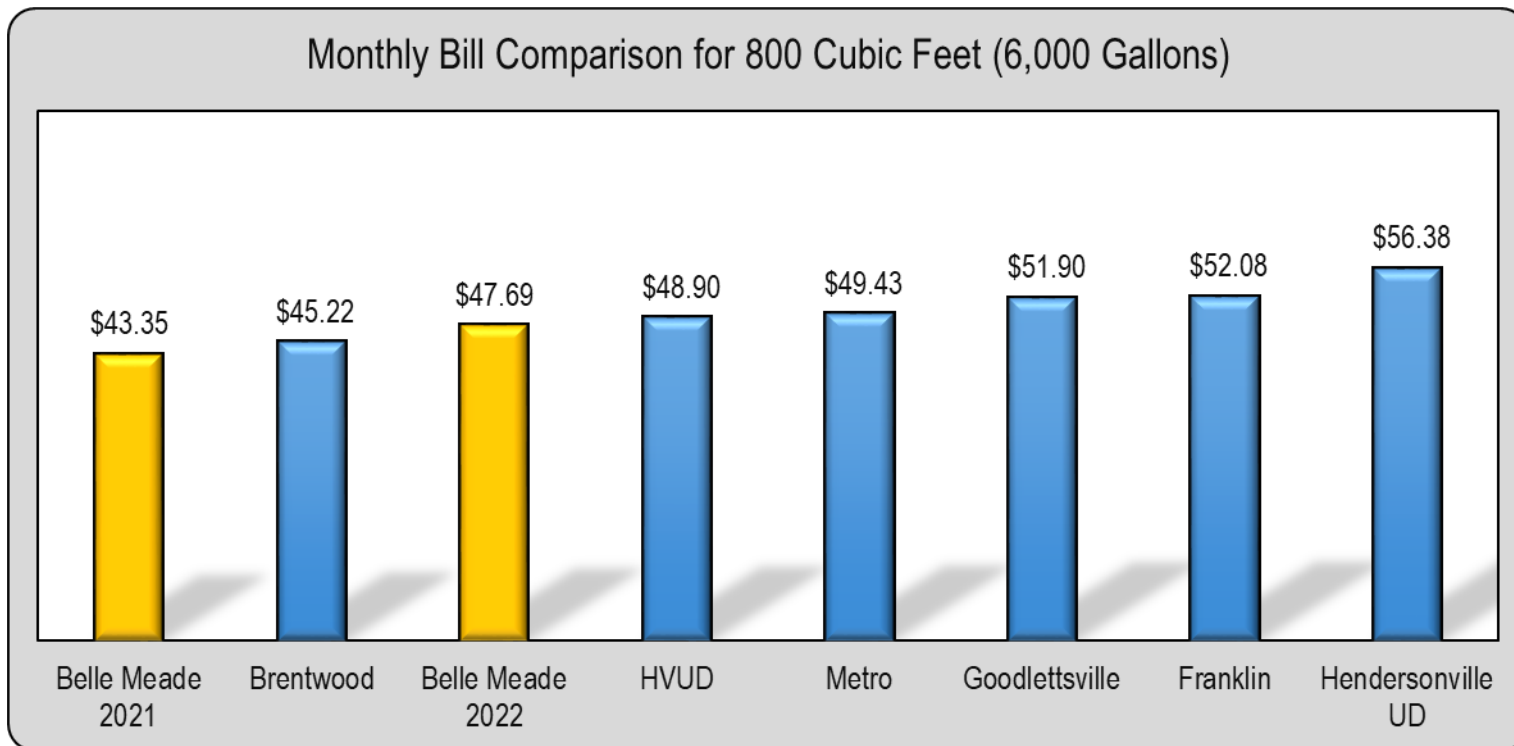


Figure 19

Tenn. Code Ann. § 68-221-1010

Current through the 2019 Regular Session

§ 68-221-1010. Facilities with earnings or operating deficit or operating in default.

(a)

(1) Within sixty (60) days from the time that an audit of a water system or wastewater facility is filed with the comptroller of the treasury, the comptroller of the treasury, shall file with the board the audited annual financial report of any water system or wastewater facility that has a deficit total net position in any one (1) year, has a negative change in net position for two (2) consecutive years or is currently in default on any of its debt instruments. For purposes of this section, “change in net position” means total revenues less all grants, capital contributions, and expenses, but without reduction for any excluded non-cash items. For purposes of this section, “excluded non-cash items” means any non-cash charges arising from changes to or the implementation of pension and other post-employment benefit standards promulgated by the governmental accounting standards board.

(2) Notwithstanding any other law to the contrary, a government joint venture that supplies or treats water or wastewater for wholesale use only to other governments shall not fall under the jurisdiction of the water and wastewater financing board for the purpose of reporting negative change in the net position annually, but must be referred to the board if the government joint venture is in a deficit or default position as provided herein.

(b)

(1) Within sixty (60) days from the receipt of the audited annual financial report filed by the comptroller of the treasury, the board shall schedule a hearing to determine whether the water system or wastewater facility described in the report is likely to continue in a deficit position. In reaching its determination, the board shall consider current user rates charged by the water system or wastewater facility, the size of the facility and the local government served by it, the quality of the facility's operation and management, and other relevant criteria.

(2) Upon a determination that the water system or wastewater facility is likely to remain in a deficit position, the board may order the management of the water system or wastewater facility to adopt and maintain user rate structures necessary to:

(A) Fund operation, maintenance, principal and interest obligations and adequate depreciation to recover the cost of the water system or wastewater facility over its useful life;

(B) Liquidate in an orderly fashion any deficit in total net position; and

(C) Cure a default on any indebtedness of the water system and wastewater facility.

(3) Any such order shall become final and not subject to review unless the parties named therein request by written petition a hearing before the board, as provided in §§ 68-221-1007 — 68-221-1013, no later than thirty (30) days after the date such order is served. Any hearing or rehearing provided by §§ 68-221-1007 — 68-221-1013 shall be brought pursuant to the

Uniform Administrative Procedures Act, compiled in title 4, chapter 5, part 3. Such hearing may be conducted by the board at a regular or special meeting by any member or panel of members as designated by the chair to act on its behalf, or the chair may designate an administrative judge who shall have the power and authority to conduct hearings in the name of the board to issue initial orders pursuant to the Uniform Administrative Procedures Act.

(c) In the event a water system and wastewater facility fails to adopt user rate structures pursuant to a final order of the board, the board may petition the chancery court in a jurisdiction in which the water system and wastewater facility is situated or in the chancery court of Davidson County to require the adoption of the user rate structures ordered by the board or to obtain other remedial action, which, in the discretion of the court, may be required to cause the water system and wastewater facility to be operated in a financially self-sufficient manner.

(d)

(1) Within sixty (60) days from the time that an audit of a water system is filed with the comptroller of the treasury, the comptroller of the treasury shall file with the board the audited annual financial report of any water system whose water loss as reported in the audit is excessive as established by rules promulgated by the board. Failure of the water system to include the schedule required in this section constitutes excessive water loss and the water system shall be referred to the water and wastewater financing board.

(2) In the event a water system fails to take the appropriate actions required by the board to reduce the water loss to an acceptable level pursuant to § 68-221-1009(a)(7), the board may petition the chancery court in a jurisdiction in which the water system is operating to require the water system to take such actions.

(3) By February 1 of each year, the comptroller of the treasury shall provide a written report to the speaker of the house of representatives and the speaker of the senate listing the average annual water loss contained in the annual audit for those utility systems described in § 68-221-1007.