

Certification of Compliance with Act 605 of 2021 Ark. Code Ann. §14-234-802.

The City of Keiser Waterworks System rate study conducted by Communities Unlimited Inc.

The rate analysis complies with the rules and code pertaining to Act 605 of 2021 Ark. Code Ann. §14-234-802.

Attached is a copy of the Act 605 and the ANRD rules adopted by the commission for your review as well as the rate study findings. Your water system is required to meet the new requirements and rules of Act 605 of 2021 by July 1, 2024, based on the number of connections on your system.

Retail water providers shall obtain rate studies pursuant to the requirements in Ark. Code Ann. §14-234-802.

Communities Unlimited Inc. has conducted the rate analysis for the City of Keiser Waterworks System as the city plans to undertake a major development project as defined above and in Ark. Code Ann. § 14-234-802 (h) (2),

The City of Keiser Waterworks System has obtained a rate study conducted by Communities Unlimited and will amend the existing rate study before beginning the major development project to include consideration of the financial impact of the major development project on the fiscal sustainability of the City of Keiser Waterworks System.

The City of Keiser Waterworks rate study analysis is based on the FY 2024 financial statements and contain five-year projects through 2028 for its capital improvement projects. Rate recommendations for the City of Keiser Waterworks include:

- Establishing a Refurbishment and Replacement account and deposit \$8,855.37 each year to cover the cost of replacing its water assets for the system's operations and maintenance.
- Increase sewer rates by 3% to account for sewer improvements, cost of inflation and variable expenses.
- Per this report, the City of Keiser Waterworks is considered sustainable with an operating projected ratio of 1.98 for 2024, 1.71 for 2025, 1.68 for 2026, 1.65 for 2027, and 1.62 for 2028.

Furthermore, rate studies are required to comply with the rules of Act 605, which require each water provider to meet a 1.1 Debt Service Coverage Ratio (DSCR). As well as the provider shall deposit a minimum of 5% per annum of gross revenues into a dedicated "Refurbishment and Replacement Account" or "Depreciation Account" within twelve

months of the implementation of the rate unless a different amount is determined by the rate study.

Communities Unlimited Inc. is familiar with (a) Act 605 of 2021, codified at Title 14, Chapter 234, Subchapter 8 of the Arkansas Code of 1987 Annotated (the "Legislation") and (b) the rules implementing the legislation which have been adopted by the Arkansas Natural Resources Commission (the "Rules").

That the Rate Study complies with the Legislation and the Rules.

A handwritten signature in black ink, appearing to read 'BJ', is written on a light yellow rectangular background.

Brad Jarrett
Communities Unlimited Arkansas State Coordinator.

City of Keiser Water and Sewer Utility Rate Analysis



*The compilation of this Utility Rate Analysis and other technical assistance is provided
at no cost to the
City of Keiser Water and Sewer
by Communities Unlimited through funding provided by the
U.S. Department of Human Services-Office of Community Services*

www.communitiesu.org

- April 29, 2024 -

COMMUNITIES
Unlimited

April 29, 2024

Honorable Ricky Creecy, Mayor
 City of Keiser Water and Sewer
 P.O. Box 138
 Keiser, AR 72351

Dear Honorable Creecy,

We are pleased to present you with this Utility Rate Analysis which was compiled using information derived from your current rate structures and your Fiscal Year 2024 (05/31/2024) financial statements. This assistance is provided to the City of Keiser Water and Sewer at no cost through a technical assistance agreement with the U.S. Department of Human Services-Office of Community Services but we hope that you, your governing board, and your management team will find value in using this report as a tool to assist you in adjusting your rates.

Shown below is a summary of your current rates on the left and the proposed rates on the right. It is recommended that you consider implementing this rate adjustment on or before 07/01/2024. The proposed rates constitute an overall 3.00% increase from your Existing Average Combined Bill of \$151.86 to the proposed Average Combined Bill of \$156.27:

Residential Water -		Existing	Proposed	Residential Sewer -		Existing	Proposed
Minimum or Demand Rate:	\$	10.50	\$ 10.82	Minimum or Demand Rate:	\$	5.25	\$ 5.41
Volumetric Rate:	\$	1.35	\$ 1.39	Volumetric Rate:	\$	0.68	\$ 0.70
Average Monthly Residential Water Bill:	\$	44.59	\$ 45.92	Average Monthly Residential Sewer Bill:	\$	12.93	\$ 13.31
Rural- Water -		Existing	Proposed	Commercial Water -		Existing	Proposed
Minimum or Demand Rate:	\$	18.00	\$ 18.54	Minimum or Demand Rate:	\$	18.00	\$ 18.54
Volumetric Rate:	\$	1.45	\$ 1.49	Volumetric Rate:	\$	1.45	\$ 1.49
Average Monthly Rural- Water Bill:	\$	37.12	\$ 38.18	Average Monthly Commercial Water Bill:	\$	57.22	\$ 58.84

With the implementation of the proposed rates, the City of Keiser Water and Sewer is proposed to increase their total cash by \$862,150 to a projected fund balance of \$1,719,070 by the end of 2028. Factors calculated for both this rate analysis, rate affordability, and the long-range projections include the following: Inflation Index-3.60%; Median Household (Monthly) Income-\$2,604; Poverty Percentage-37.0%; Current Unemployment Rate to National Rate-20%; Affordability Factor (of Median Household Income)-1.6% (Adjusted for high Poverty / high Unemployment); and, Calculated Maximum Affordable Monthly Bill of \$41.67.

We appreciate this opportunity to work with the City of Keiser Water and Sewer and understand that you may choose to have a more thorough rate analysis performed that benchmarks detailed customer usage patterns, other scenarios of debt retirement and new debt to be incurred, as well as additional multiple rate proposals. If you would like to discuss a more thorough analysis or additional proposals, Community Resource Group has the capacity to provide this additional service on a fee-for-service basis. For more information on this or other services that we can provide to the City of Keiser Water and Sewer, please contact me at (479) 313-0621 or my supervisor, Central States Area Director Karen Conrad at (479) 313-0621.

Sincerely,

Brad Jarrett
 State Coordinator

Communities Unlimited mission is to move rural and under-resourced communities in areas of persistent poverty to sustainable prosperity.

BRAD JARRETT • STATE COORDINATOR

P.O. Box 615 E. Cooper, West Memphis, AR

Phone (479) 313-0621 • Fax • E-mail: brad.jarrett@communitiesu.org

City of Keiser Water and Sewer Utility Rate Analysis

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City of Keiser Water and Sewer Utility Rate Analysis

April 29, 2024

SOURCE DOCUMENTATION

Utility System Data:

Residential Water -

Current Active Customer Count:	303
Minimum or Demand Rate:	\$ 10.50
Minimum Allowance (if applicable):	1,000
Volumetric Rate (if applicable):	\$ 1.35

Residential Sewer -

Current Active Customer Count:	279
Minimum or Demand Rate:	\$ 5.25
Minimum Allowance (if applicable):	1000
Volumetric Rate (if applicable):	\$.68

Rural- Water -

Current Active Customer Count:	31
Minimum or Demand Rate:	\$ 18.00
Minimum Allowance (if applicable):	1000
Volumetric Rate (if applicable):	\$ 1.45

Commercial Water -

Current Active Customer Count:	21
Minimum or Demand Rate:	\$ 18.00
Minimum Allowance (if applicable):	1000
Volumetric Rate (if applicable):	\$ 1.45

Financial Data:

Date of Last Audit (or Compilation Report): **May 31, 2024**

Revenues -

Residential Water Service:	\$ 162,143
Residential Sewer Service:	\$ 43,285
Rural- Water Service:	\$ 13,807
Commercial Water Service:	\$ 14,420
Other Income:	\$ 157,113
Total Revenues:	\$ 390,768

Expenses -

Principal Installments:	\$ 21,654
Interest Installments:	\$ 33,282
Other Fixed Expenses:	\$ 36,079
Total Fixed Expenses:	\$ 91,015
Variable Expenses:	\$ 188,075
Total Expenses:	\$ 279,090

Fund Balance -

Fund Balance (June 1, 2023):	\$ 745,242
Net Change to Fund Balance:	\$ 111,678
Fund Balance (May 31, 2024):	\$ 856,920
Unrestricted Cash & Investments:	\$ 378,822
Restricted Cash & Investments:	\$ 478,098
	\$ 856,920

PAST AND CURRENT OPERATING RATIO ANALYSIS

2024 Fiscal Year Operating Ratio:

1.40

2024 Fiscal Year Projected Operating Ratio:

1.98

1.10 or Greater: Sustainable - *The utility is generating the necessary Operating Revenues to cover not only current expenses but to also set aside reserve funds for the replacement or repair of major system components. Financially Sustainable utilities should continue to review the financial sustainability of the utility each year and be prepared to increase rates before the operating ratio is projected to drop below 1.10.*

1.03 - 1.09: Operational - *The utility is generating the necessary revenues to adequately cover current operational expenses but may fall short in maintaining or acquiring the resources to adequately plan for the replacement or repair of major system components. Usually, utilities considered financially Operational should soon consider a small rate increase before financial viability is threatened.*

1.00 - 1.02: Threatened - *The utility is generating the necessary revenues to cover current operational expenses but may NOT be able to continue sustainable operations. Additionally, the utility can NOT expect to adequately plan for the replacement or repair of major system components. Usually, Utilities considered financially Threatened should implement a moderate rate increase as soon as possible.*

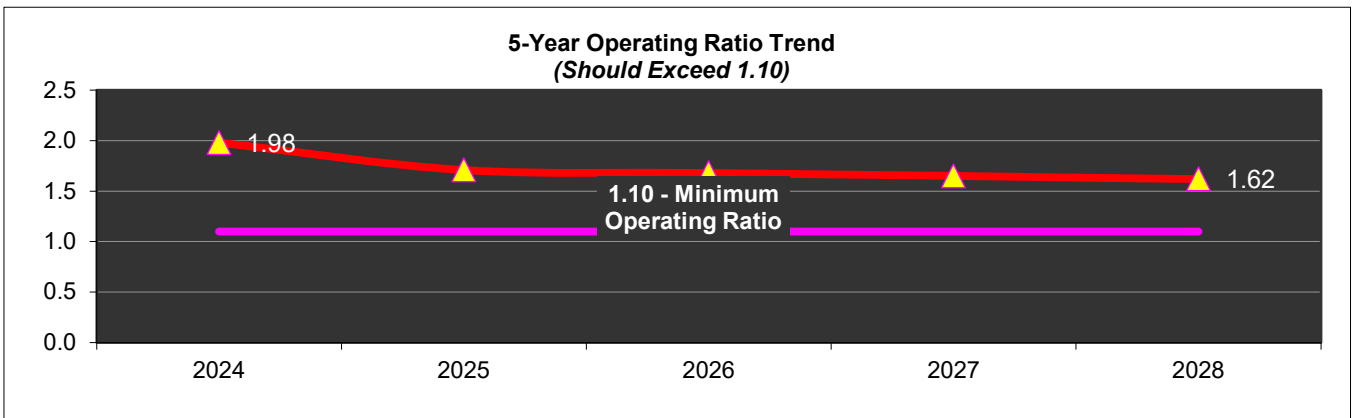
Less than 1.00: Non-Sustainable - *The utility is NOT generating the necessary revenues to cover operational expenses NOR is able to fund the replacement or repair of major system components without significantly depleting reserve funds. Financially Non-Sustainable utilities should significantly increase rates immediately.*

City of Keiser Water and Sewer Utility Rate Analysis

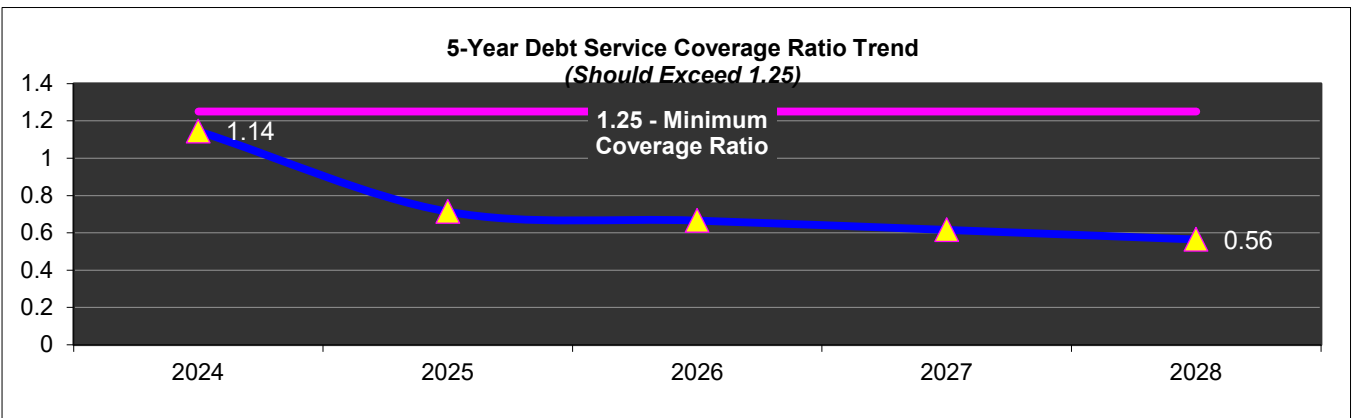
LONG RANGE BUDGET ANALYSIS MAINTAINING EXISTING RATE STRUCTURES - NO CHANGE

	Current Fiscal Year - 2024	Fiscal Year 2025	Fiscal Year 2026	Fiscal Year 2027	Fiscal Year 2028
Revenues -					
Residential Water Service:	\$ 162,143	\$ 162,143	\$ 162,143	\$ 162,143	\$ 162,143
Residential Sewer Service:	\$ 43,285	\$ 43,285	\$ 43,285	\$ 43,285	\$ 43,285
Rural- Water Service:	\$ 13,807	\$ 13,807	\$ 13,807	\$ 13,807	\$ 13,807
Commercial Water Service:	\$ 14,420	\$ 14,420	\$ 14,420	\$ 14,420	\$ 14,420
Other Income:	\$ 157,113	\$ 157,113	\$ 157,113	\$ 157,113	\$ 157,113
Total Projected Income:	\$ 390,768	\$ 390,768	\$ 390,768	\$ 390,768	\$ 390,768
Expenses -					
Variable Expenses:	\$ 106,494	\$ 110,328	\$ 114,300	\$ 118,414	\$ 122,677
Principal Installments:	\$ 21,979	\$ 33,440	\$ 33,942	\$ 34,451	\$ 34,968
Interest Installments:	\$ 32,957	\$ 49,319	\$ 48,818	\$ 48,309	\$ 47,792
Other Fixed Expenses:	\$ 36,079	\$ 36,079	\$ 36,079	\$ 36,079	\$ 36,079
Total Projected Expenses:	\$ 197,509	\$ 229,166	\$ 233,138	\$ 237,253	\$ 241,516
Operational Earnings:	\$ 193,259	\$ 161,602	\$ 157,630	\$ 153,515	\$ 149,252

Projected Operating Ratio: 1.98 1.71 1.68 1.65 1.62



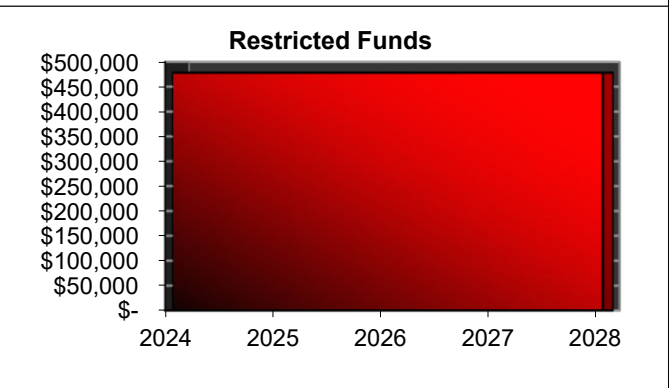
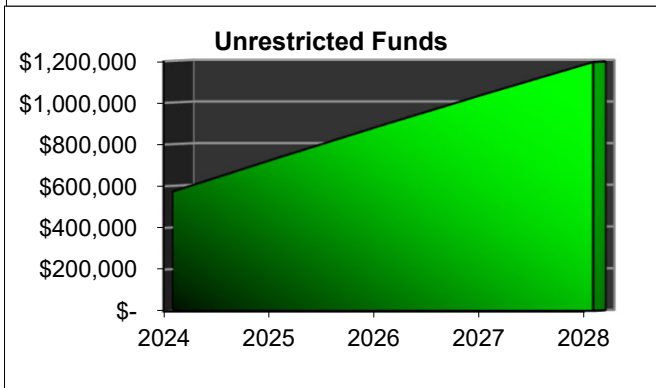
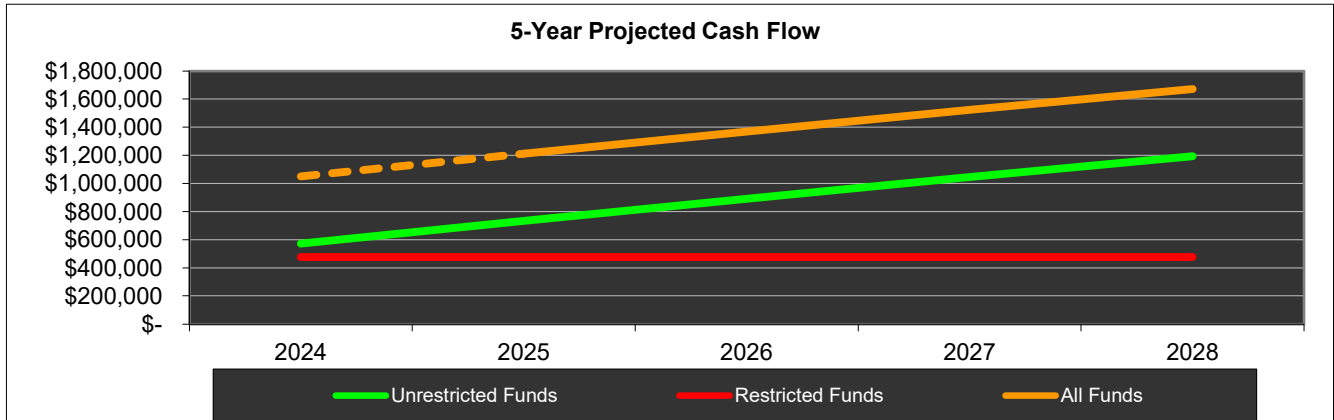
Projected Coverage Ratio: 1.14 0.71 0.67 0.62 0.56



City of Keiser Water and Sewer Utility Rate Analysis

LONG RANGE CASH FLOW ANALYSIS MAINTAINING EXISTING RATE STRUCTURES - NO CHANGE

	Current Fiscal Year - 2024	Fiscal Year 2025	Fiscal Year 2026	Fiscal Year 2027	Fiscal Year 2028
Operational Earnings:	\$ 193,259	\$ 161,602	\$ 157,630	\$ 153,515	\$ 149,252
Financing and Construction Activities -					
Projected Loans:	\$ 550,000		\$ -		\$ -
Projected Grants:	\$ -		\$ -		\$ -
Capital Outlay:	\$ (550,000)	\$ -	\$ -	\$ -	\$ -
Cash from Financing and Construction Activities:	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase to Cash:	\$ 193,259	\$ 161,602	\$ 157,630	\$ 153,515	\$ 149,252
Cash Beginning of Period:	\$ 856,920	\$ 1,050,179	\$ 1,211,781	\$ 1,369,410	\$ 1,522,926
Net Increase (Decrease):	\$ 193,259	\$ 161,602	\$ 157,630	\$ 153,515	\$ 149,252
Cash End of Period:	\$ 1,050,179	\$ 1,211,781	\$ 1,369,410	\$ 1,522,926	\$ 1,672,178
Cash & Investments -					
Unrestricted Funds:	\$ 572,081	\$ 733,683	\$ 891,312	\$ 1,044,828	\$ 1,194,080
Restricted Funds:	\$ 478,098	\$ 478,098	\$ 478,098	\$ 478,098	\$ 478,098
Projected Fund Balance:	\$ 1,050,179	\$ 1,211,781	\$ 1,369,410	\$ 1,522,926	\$ 1,672,178



City of Keiser Water and Sewer Utility Rate Analysis

OVERALL FINANCIAL SUSTAINABILITY ANALYSIS

Analysis of Current Financial Position		Sustainable	Operational	Threatened	Non-Sustainable
Current Operating Ratio:		15			0
Current Coverage:					
Current Cash Flow:		15			
Current Financial Viability Rating:			30		
		34 - 45 76% or Higher	22 - 33 49% - 75%	11 - 21 24% - 48%	0 - 10 Less than 24%
Analysis of Long-Term Financial Position		Sustainable	Operational	Threatened	Non-Sustainable
Long-Term Operating Ratio:		15			0
Long-Term Coverage:					
Long-Term Cash Flow:		15			
Long-Term Financial Viability Rating:			30		
		34 - 45 76% or Higher	22 - 33 49% - 75%	11 - 21 24% - 48%	0 - 10 Less than 24%
Overall Financial Viability Rating:		30	OPERATIONAL		
Urgency to Increase Rates:			LOW		
		Extremely High	HIGH	Moderate	Low
		None			

GENERAL RECOMMENDATION:

Sustainable	<i>Systems which are considered to be financially Sustainable usually do not have to increase rates in the near-term but should review the rates on an annual basis to ensure that both operational funds and capital reserve funds are adequately funded and that the system is not in danger of falling below an Operating Ratio of 1.10.</i>
OPERATIONAL	<i>The current as well as long-term viability for the City of Keiser Water and Sewer Water System is considered to be financially Operational. The Operating Ratio is projected to drop to in which will cause a negative cash-flow of \$193,259 and further deplete system reserves. It is recommended that the City of Keiser Water and Sewer consider a rate increase soon.</i>
Threatened	<i>Systems which are considered to be financially Threatened are not generating enough revenues to cover more than two months of operational expenses. Additionally, capital reserve funds necessary for the repair / replacement of critical system components are not adequately funded and the system is at risk of depleting existing reserve funds. It is usually recommended that financially Threatened systems implement a moderate rate increase as soon as possible before the Operating Ratio falls below 1.10.</i>
Non Sustainable	<i>Systems which are considered to be financially Non-Sustainable are depleting reserve funds to cover operational expenses. Systems experiencing even brief periods of non-sustainable operations run the risk of deferring maintenance and at the least, not possess the capacity to feasibly plan for the repair / replacement of critical system components. Both of these resulting actions caused by financial non-sustainability will ultimately lead to serious regulatory compliance issues. It is usually recommended that Non-Sustainable systems implement a significant rate increase immediately.</i>

City of Keiser Water and Sewer Utility Rate Analysis

PROPOSED NEW RATES

Overall Proposed Rate Increase: 3.0%

	Existing	Proposed		Existing	Proposed	
Residential Water -						
Minimum or Demand Rate: \$	10.50	\$ 10.82		\$ 5.25	\$ 5.41	
Volumetric Rate: \$	1.35	\$ 1.39		\$ 0.68	\$ 0.70	
Monthly Residential Water Bill: \$ 44.59		\$ 45.92	Average Monthly Residential Sewer Bill: \$ 12.93		\$ 13.31	
Rural- Water -						
Minimum or Demand Rate: \$	18.00	\$ 18.54		\$ 18.00	\$ 18.54	
Volumetric Rate: \$	1.45	\$ 1.49		\$ 1.45	\$ 1.49	
Average Monthly Rural- Water Bill: \$ 37.12		\$ 38.18	Average Monthly Commercial Water Bill: \$ 57.22		\$ 58.84	
Existing Average Combined Bill		\$ 151.86	(+\$3.69)	\$ 156.27	Proposed Average Combined Bill	

Affordability -

The proposed increase of 3.0% more per month to an average monthly bill of is still within the adjusted affordability index of 1.6% of the annual City of Keiser Water and Sewer Median Household Income of \$31,250 (\$41.67 per month).

The affordability index of 2.0% was adjusted down to 1.6% due to high poverty (37%).

LONG RANGE BUDGET & CASH FLOW ANALYSIS - Proposed New Rates

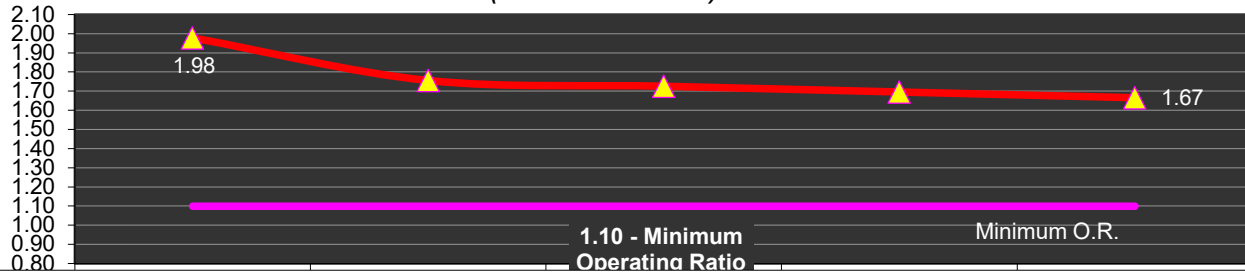
	Current Fiscal Year - 2024	Fiscal Year 2025	Fiscal Year 2026	Fiscal Year 2027	Fiscal Year 2028
Revenues -					
Residential Water Service: \$	162,143	\$ 167,007	\$ 167,007	\$ 167,007	\$ 167,007
Residential Sewer Service: \$	43,285	\$ 44,584	\$ 44,584	\$ 44,584	\$ 44,584
Rural- Water Service: \$	13,807	\$ 14,221	\$ 14,221	\$ 14,221	\$ 14,221
Commercial Water Service: \$	14,420	\$ 14,853	\$ 14,853	\$ 14,853	\$ 14,853
Other Income: \$	157,113	\$ 161,826	\$ 161,826	\$ 161,826	\$ 161,826
Total Projected Income:	\$ 390,768	\$ 402,491	\$ 402,491	\$ 402,491	\$ 402,491
Expenses -					
Variable Expenses: \$	106,494	\$ 110,328	\$ 114,300	\$ 118,414	\$ 122,677
Principal Installments: \$	21,979	\$ 33,440	\$ 33,942	\$ 34,451	\$ 34,968
Interest Installments: \$	32,957	\$ 49,319	\$ 48,818	\$ 48,309	\$ 47,792
Other Fixed Expenses: \$	36,079	\$ 36,079	\$ 36,079	\$ 36,079	\$ 36,079
Total Projected Expenses:	\$ 197,509	\$ 229,166	\$ 233,138	\$ 237,253	\$ 241,516
Operational Earnings:	\$ 193,259	\$ 173,325	\$ 169,353	\$ 165,238	\$ 160,975
Financing and Construction Activities -					
Projected Loans: \$	550,000	\$ -	\$ -	\$ -	\$ -
Projected Grants: \$	-	\$ -	\$ -	\$ -	\$ -
Capital Outlay: \$	(550,000)	\$ -	\$ -	\$ -	\$ -
Cash from Financing and	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase to Cash:	\$ 193,259	\$ 173,325	\$ 169,353	\$ 165,238	\$ 160,975
Cash Beginning of Period: \$	856,920	\$ 1,050,179	\$ 1,223,504	\$ 1,392,857	\$ 1,558,095
Net Increase (Decrease): \$	193,259	\$ 173,325	\$ 169,353	\$ 165,238	\$ 160,975
Cash End of Period:	\$ 1,050,179	\$ 1,223,504	\$ 1,392,857	\$ 1,558,095	\$ 1,719,070
Cash & Investments -					
Unrestricted Funds: \$	572,081	\$ 745,406	\$ 914,759	\$ 1,079,997	\$ 1,240,972
Restricted Funds: \$	478,098	\$ 478,098	\$ 478,098	\$ 478,098	\$ 478,098
Projected Fund Balance:	\$ 1,050,179	\$ 1,223,504	\$ 1,392,857	\$ 1,558,095	\$ 1,719,070

City of Keiser Water and Sewer Utility Rate Analysis

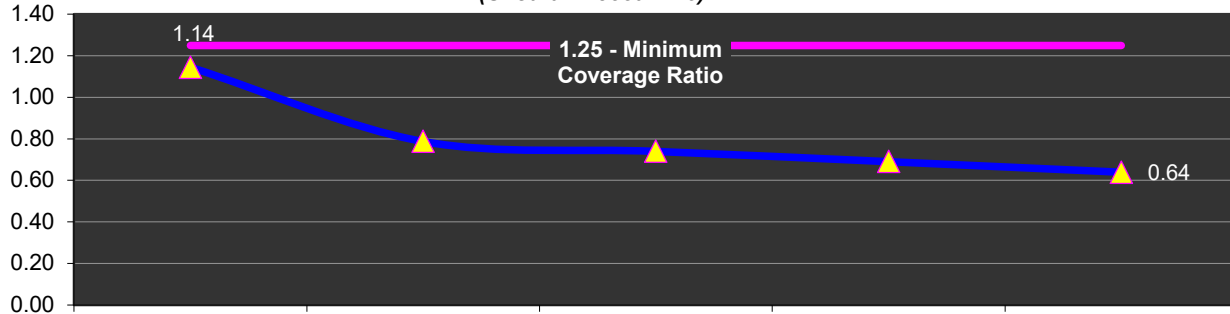
SUSTAINABILITY COMPARISON OF EXISTING RATES TO PROPOSED RATES

	2024	2025	2026	2027	2028
Current Rates Operating Ratio:	1.98	1.71	1.68	1.65	1.62
Proposed Rates Operating Ratio:	1.98	1.76	1.73	1.70	1.67
Current Rates Coverage Ratio:	1.14	0.71	0.67	0.62	0.56
Proposed Rates Coverage Ratio:	1.14	0.79	0.74	0.69	0.64
Current Rates Fund Balance:	\$1,050,179	#####	\$1,369,410	#####	\$1,672,178
Proposed Rates Fund Balance:	\$1,050,179	#####	\$1,392,857	#####	\$1,719,070
Current Rates Viability / Score:	30	OPERATIONAL			
Proposed Rates Viability / Score:	45	SUSTAINABLE			

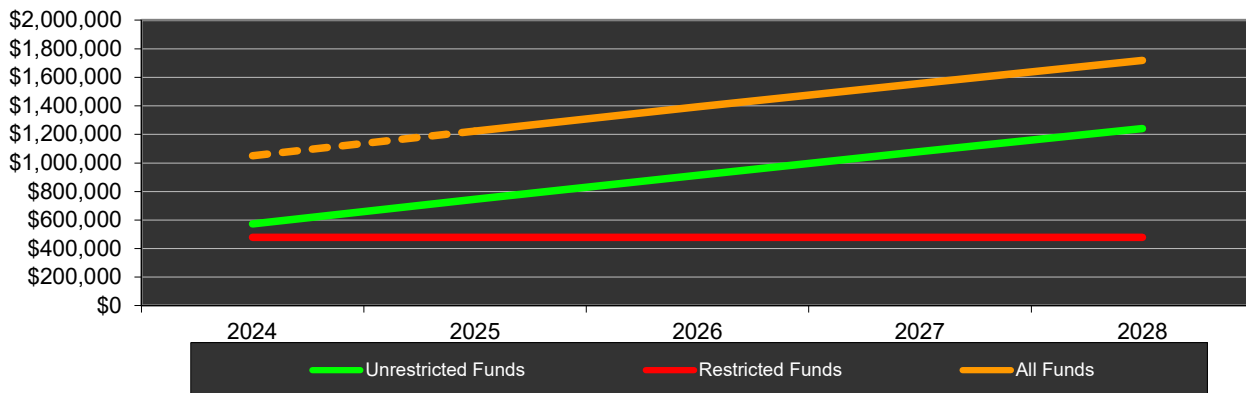
5-Year Proposed Rates Operating Ratio Trend - (Red Line)
(Should Exceed 1.10)



5-Year Proposed Rates Debt Service Coverage Ratio Trend - (Blue Line)
(Should Exceed 1.25)



5-Year Proposed Rates Projected Cash Flow



City of Keiser Water and Sewer Utility Rate Analysis

Notes

1. The City of Keiser Water and Sewer provided Communities Unlimited (CU) with the minimal source documentation necessary to complete this rate analysis. Among the information provided included the City of Keiser Water and Sewer Audit for the year-ending May 31, 2024 compiled by S.Don, CPA. Information included in this financial report including the year-ending cash balances (restricted and unencumbered), revenues generated by utility rates, other revenues and income, expenses (excluding depreciation expense), and debt service including existing principal and interest note payments was integral in analyzing the impact of the City of Keiser Water and Sewer's existing rate structures.
2. U.S. Census Data from the ACS 5-year estimates was obtained to determine the City of Keiser Water and Sewer's estimated service area Median Household Income of \$31,250, a Poverty Rate of 37.0%, and an Local Unemployment Comparison to the national average of 20.0%. The standard affordability index of 2.0% for one utility service was adjusted down to 1.6% due to high poverty (37.0%)
3. Historical growth in the number of the City of Keiser Water and Sewer Water System customers over the last five years, (since 2019), was calculated at 0.0% (or 0.00% per year). This 0.00% percentage factor is projected as future annual growth in revenues over the next five years for the City of Keiser Water and Sewer
4. A detailed cost analysis was not performed but rather the City of Keiser Water and Sewer's audited expenses were calculated at 43% variable expenses (\$106,494 excluding debt service in 2023) and 57% fixed expenses (\$137,266 plus \$54,936 in existing debt service). An annual inflation factor of 3.60% was used in projecting increases in future variable expenses.

Disclaimer

The accuracy of future projections with any financial analysis depends upon not only using accurate source data but can also be influenced by other factors which could significantly effect current and long-term projections. Other factors include unanticipated exceptional increases in operating costs, increased O&M system repair and rehabilitation needs, decline in customer population, and the significant slowing of customer water meters. All of which may negatively impact current and long-term financial projections. Additionally, inaccurate source documentation obtained from the City of Keiser Water and Sewer may also negatively impact projections. As such, Communities Unlimited and its Federal and/or State Contracting Agencies offers NO warranty or guarantee related to the projections contained herein this analysis.

COMMUNITIES Unlimited

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3 East Colt Square Drive, Fayetteville, Arkansas 72703-2884.

April 29, 2024

City of Keiser Waterworks Asset Management Plan

Inventory of System Assets:

The following table represents the short-lived assets of the City of Keiser utility systems. These components have a normal life expectancy of 1-5 years; 5-10 years; or 10-15 years. Line replacement falls in a category of more than 15 years, and while there is a need to save funds towards these replacements, that amount is not included in the asset management plan. Replacement costs were obtained by research of a water line replacement project under construction and through the internet.

Asset Type	Year Installed	Useful Life - Vendor Specified	Anticipated Date of Replacement	Number of Units Installed	Replacement Cost Per Unit	Total Replace Cost	Annual Maintenance Cost
Water Meters	2015	10-15 Years	23 (7%) per year thru 12/2029	115	\$130.00	\$15,398.50	\$3,079.70
Chlorinator Booster	2016	15 Years	2029	1	\$1,500.00	\$1,545.00	\$309.00
2007 Chevy Truck	2012	15-20 Years	2029	1	\$20,000.00	\$21,333.33	\$4,266.67
Elevated Water Storage Tank Inspection	2022	5 Years	2027	2	\$3,000.00	\$6,000.00	\$1,200.00
Totals						\$44,276.83	\$8,855.37

COMMUNITIES Unlimited

Rural Community Assistance Program

Allen Spradling
Community Environmental
Management Advisor
P.O. Box 135
Grubbs, AR 72431
Cell (479) 409-7424
Allen.spradling@communitiesu.org

ASSET TYPE	Score	PROJECTED CONSEQUENCE OF FAILURE
Water Meters (Radio Read)	5	Water meters have an efficiency lifespan of 10 to 15 years. After that the unregistered water flow correlates into lost revenues. This can show a loss of 10% or more on the unaccounted water loss report. The Arkansas Department of Health has set a goal of less than 15% water loss for a PWS. If Keiser waterworks had a loss of 10% in the 115 meters, it would show a water loss of 690,000 gallons per year based on a 5,000 gallon per month per household usage.
Chlorinator Booster	7	Chlorinator boosters are essential to the treatment process to maintain the chlorine levels in the drinking water. Inefficient boosters could supply too little chemical treatment to properly disinfect the water or too high of a level of chemicals resulting in hazardous levels of disinfectant byproducts in the water. Keiser Waterworks has a small system and a disruption in the chlorination process could potentially affect the entire system before any response could be implemented.
2007 Chevy Truck	7	Keiser Waterworks should maintain reliable transportation vehicles to allow for quick response to emergencies, the safety of workers traveling to and from worksites, and performing the day to day tasks.
Elevated Water Storage Tank Inspection	5	The Keiser Waterworks has two elevated storage tanks built in 1928 and 1982 which makes both tanks past the manufacturer's useful life expectancy. These tanks are beginning to require major maintenance and rehabilitation to maintain structural integrity and water quality. The Arkansas Department of Health requires PWS finished water storage tanks to have a comprehensive inspection including both the inside and outside of the tank completed at least once in any given five-year period to stay in compliance. These inspections are a crucial step in monitoring for any potential hazards or faults that may develop.

CONDITION OF ASSET SCORING

Excellent (1-2)		Good (3-4)		Moderate (5-6)		Poor (7-8)		Critical (9-10)	
Asset is like new, fully operable, well maintained, and performs consistently at or above current standards. Little wear shown and no further action required.		Asset is sound and well maintained but may be showing some signs of wear. Delivering full efficiency with little or no performance deterioration. Virtually all maintenance is planned preventive in nature. At worst, only minor repair might be needed in the near term.		Asset is functionally sound, showing normal signs of wear relative to use and age. May have minor failures or diminished efficiency and some performance deterioration. Likely showing modest increased maintenance and/or operations costs. Minor to moderate refurbishment may be needed in the near term.		Asset functions but requires a sustained high level of maintenance to remain operational. Shows substantial wear and is likely to cause significant performance deterioration in the near term. Near term scheduled rehabilitation or replacement needed.		Effective life exceeded and/ or excessive maintenance cost incurred. A high risk of breakdown or imminent failure with serious impact on performance. No additional life expectancy: immediate replacement or rehabilitation needed.	
1	2	3	4	5	6	7	8	9	10

Source: www.epa.gov

Schedule for Replacement:

During assessments conducted with the City of Keiser Waterworks, the above outlined water assets were identified. The system has 343 water connects that contain radio read meters. Replacement of the 115 meters in 5 years or 1/3 of the total number including inflation cost is \$15,398.50. The annual cost would be \$3,079.70 or \$256.64 per month to put in a reserve account to replace these meters in 5 years.

Keiser Waterworks currently has a Booster Chlorinator that needs replaced. The cost is \$1,545.00 with inflation. The system would need to budget \$309.00 per year or \$25.75 of savings each month to meet the yearly obligation.

Keiser Waterworks currently replaces work trucks as needed. The cost of replacing one truck in the next five years with inflation is approximately \$21,333.33 or \$4,266.67 per year. The system would need to budget \$355.56 of savings each month to meet the yearly obligation.

Keiser Waterworks has two water storage tanks. According to the Arkansas Department of Health regulations, these tanks must be inspected at least once every five years. The average cost for a tank inspection is \$3,000.00. The cost for these inspections will be \$6,000.00 over the next five years. Keiser Waterworks will need to budget \$1,200.00 per year or \$100.00 per month to

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accomplish this requirement. The next anticipated tank inspections for the two tanks will be in 2027.

Overall, the total replacement cost for the water assets lists totals \$44,276.83. The system would have to budget \$8,855.37 dollars each year or \$737.95 each month for 12 months to prepare for water asset replacements and maintain operational health of the system.