



Arkansas Rural Water Association



Dennis Sternberg, CEO

P.O. Box 860 • Lonoke, AR 72086 • 501-676-2255 • Fax 501-676-2266

E-mail: arkrwa@arwa.net

Web: www.arkansasruralwater.org

ARWA Mission Statement:

To provide Arkansas Rural Water Utilities the highest level of Training & Technical Services in order to obtain a Quality Water at the lowest possible cost.

Date: March 10, 2024

To: East End Water Improvement District #1

From: Arkansas Rural Water Association

Re: Water Rate Study Based on 2022 Financials - Meeting Rules of Act 605 of 2021

Thank you for trusting Arkansas Rural Water Association to review your financial status to determine an adequate rate for your system customers based on your systems operation the past calendar year of 2022.

In determining water or sewer rates Water Providers (all public water utilities) must use one of Arkansas Natural Resource Division (ANRD) approved rate study providers. Rate study companies must start performing rate studies that conform with Act 605 of 2021 and the rules adopted by the Arkansas Natural Resource Division Commissioners/Arkansas Department of Agriculture.

I have attached a copy of Act 605 and the ANRD rules adopted by the commission for your review as well as the rate study findings. The results of your rate study findings will state that this rate study was done in accordance with the rules pertaining to Act 605 of 2021. Your system is required to meet the new requirements and rules of Act 605 of 2021 by July 1, 2026, 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 and Act 545 of 2023.

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.

Rules: IV Rate Studies for Retail Providers

1. **Retail water providers shall obtain rate studies pursuant to the requirements in Ark. Code Ann. 14-234-802: This rate study performed by Arkansas Rural Water Association (ARWA) complies with the above Ark. code.**
2. **A provider that plans to undertake a major development project, as defined above and in Ark. Code Ann. § 14-234-802(h)(2), shall obtain a rate study or amend the provider's 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 provider.**

Is the Water Provider requesting this rate study to comply with requirements of section Ark. Code Ann. § 14-234-802(h)(2) referring to a major development project? YES

3.
 - a. **Rate Study Needed Information:**

Yearly Payment of Loan(s) Principle: (Indicate the total yearly amount paid to meet any loan(s) principle regarding water and/or sewer debts. This should include the total of all loans, if any, relative to each).

Existing Yearly Principal & Interest = \$153,474 = : \$153,475

Yearly Payment of Loan(s) interest: (Indicate the total yearly amount paid by the facility to meet any interest associated with any loans per year for water or sewer. This should indicate the total of all loans,

Nature- Land Principal & Interest = \$30,010
Water Tower Principal & Interest = \$153,474 : \$183,484

Total Amount of Gallons of Water Sold Per/ Year or (For Sewer) Show 80 Percent of the Total Amount of Gallons of Water Pumped (Next Field): Enter the total amount based on usage only. Show in figure in 1,000's. Example:9,765,000 gallons would be shown as 9,765 in the blank.

: 159,246

Total Amount of Gallons of Water Pumped Per Year: (Show the total gallons of water pumped by the facility in the last year, in 1,000's).

: 185,154

Total Number of Active Customers: (List the total number of active customers served by the facility.)

: 2,445

Total Revenue from Metered Sales: (Show the total monetary amount taken in by the facility through metered sales. This also includes NON-Metered Revenue, etc.)

Metered Sales \$923,144 + NON-Metered Revenue \$81,668 : \$1,004,812

Total Operating Expenses Per Year: (List all costs for Water and/or Sewer, which are expended to operate the system for a one-year period): These may include salaries, insurance, utility costs, maintenance and other repairs costs, capital costs, chemical costs, rent, equipment costs, taxes, purchases of water, office supplies costs, miscellaneous, engineering, legal and audit or agreed upon procedure fees, etc.)

: \$978,334

Payment To Reserve Account Per Year: (Show the yearly amount invested into a reserve account, each year, which is required by any loan documentation. If the required minimum level has been attained, and the facility no longer funds such account, leave this field blank). : \$0.00.

Payment To Refurbishment & Replacement/Depreciation Account Per Year: (This yearly amount shall deposit a minimum of five percent (5) per annum of gross revenues in a dedicated refurbishment and replacement account within twelve months of implementation of the rate unless a different amount is determined by the rate study.)

Refurbishment & Replacement/Depreciation Account Per Year 5% : \$50,240
Total Revenue x 0.05% = \$1,004,812 x 0.05%

Rules: IV Rate Studies for Retail Water Providers

**Water Provider & Sewer Provider
Rate Study Form Results Page**

Calculated Total Yearly Cash Requirement: (This figure represents the total cash needed to just meet the financial obligations of the water and/or sewer utility for a one-year period, based on information supplied by the facility personnel.)

: \$1,365,533

Calculated Debt Service Per Customer Per Month: (This figure represents an equal debt obligation per customer and can be used as monthly "User's Fee.")

: \$11.48

Calculated Operating Cost Per 1000 Gallons Funding Depreciation Account: (This figure represents the lowest amount needed for each 1000 gallons above minimum.)

:\$6.46

Calculated Shortage of Revenue: (Indicates the shortage of money, if any, that is needed to cover all costs/ A negative figure indicates a positive surplus.)

(Shortage) : \$360,721

Calculated Average Bill Per Customer Per Month: (This figure indicates an average amount needed per customer to meet all debt service and operational expenses.)

: \$46.54

Calculated Minimum Rate Allowing 1000 Gallons and Funding Refurbishment & Replacement Account: (This figure can be used as a "Minimum Charge" per customer for the first 1000 gallons each month.)

Minimum Bill = Debt \$11.48/Customer/Month + \$6.46/1,000 + \$6.46/1,000 = : \$24.40
2,000 Gallons

Allover 2,000 gallons \$6.46/1.000 gallons

calculated Yearly Average Percent of Water Loss: (System water loss is excessive, if above 15 percent. Calculation will indicate the amount NOT accounted for in total gallons of water pumped a year.)

: 13.99%

**Debt Service Cover Ratio –
Calculation Page**

Debt Service Coverage Ratio= Net Operating Income/Annual Debt
 Calculations For Net Operating Income= Revenue - Operating Expense = Net Operating Income
 Net Operating Income= \$1,004,812 - \$978,334 = \$26,478
 DSCR Calculations = \$26,478/ \$336,959 = **0.07 DSCR**
 ANRD Rules require at least a 1.1 DSCR.
 This shows Water Provider has (**inadequate**) amount of revenue to cover Debt.

Total Revenue (Meter Sales & Other Revenue)	\$1,004,812
Total Operating Expenses=	\$ 978,334
Refurbishment & Replacement Account=	\$ 50,240
Debt (principal and interest) =	\$ 336,959
Debt Service Coverage Ratio of 1.1 = (0.07)	\$ 0
Total Revenue Required =	\$1,365,533

Based on the calculations of DSCR your system provided shows your DSCR is inadequate @ (0.07).

**NEW Debt Service Cover Ratio
Calculation Page**

Debt Service Coverage Ratio= Net Operating Income/Annual Debt
 Calculations For Net Operating Income= Revenue - Operating Expense = Net Operating Income
 Net Operating Income= \$1,365,533 - \$978,334 = \$387,199
 DSCR Calculations= Net Operating Income/ Total Debt (Principal & Interest) = 1.1 DSCR
 DSCR Calculations= \$387,199 / \$336,959 = **(1.14)**
 ANRD Rules require at least a 1.1 DSCR.
 This shows Water Provider has (**adequate**) amount of revenue to cover Debt.

Total Revenue (Meter Sales & Other Revenue)	\$1,365,533
Total Operating Expenses=	\$ 978,334
Refurbishment & Replacement Account =	\$ 50,240
Debt (principal and interest) =	\$ 336,959
Debt Service Coverage Ratio of 1.1 = (1.14)	\$
Reserve Account =	\$ 0
Total Revenue Required=	\$1,365,533

Based on the calculations of DSCR your system provided shows your DSCR is adequate @ (1.14).

Summary of Rate Study Findings:

**East End Water Improvement District #1
Present Water Rates were last adjusted on: (2-2021)**

Present Water Rates:

Minimum Bill: 0-2,000 gallons : \$15.26
Allover 2,000 gallons \$ 3.61/1,000 gallons

New Water Rates:

Minimum Bill: 0-2,000 gallons : \$24.40
Allover 2,000 gallons \$ 6.46/1,000 gallons

**East End Water Improvement District #1
January 1, 2022, Through December 31, 2022**

Customers By Revenue Class with Charges and Customer Count & Percentages%

Revenue Class - # of Customers & % - Usage (In Gallons)

Residential	- 2,375	(97%)	- 154,469,270
Commercial	- 70	(3.0%)	- 4,458,906
TOTAL'S	- 2,445	(100%)	- 159,246,000

East End Water Improvement District #1:

Produced 185,154,000 gallons of water from January 1, 2022, through December 31, 2022.

Sold 159,246,000 gallons of water to their customers for the year 2022.

Water Loss for the system showed to be 25,908,000 gallons or a loss of 13.99%.

East End WID #1 showed that they have 2,445 customers for the year.

NEW Break-Even Water Rate:

Minimum Bill: 0-2,000 Gallons	\$24.40
Allover 2,000 Gallons	\$6.46/1,000

Break-Even Rate – 2,445 Customers

Water Sold for the year of 2022 was 159,246,000 gallons.

Monthly Average Water Usage Per Customer:

159,246,000 / 12 Months / 2,445 Customers = 5,427 Gallons / Customer / Month / Average

5,427 Gallons/Month/Average/Customer

Minimum Bill with 2,000 Gallons= \$24.40

3,427 Gallons x \$6.46/1,000 Gallons = \$22.14

\$46.54 x 2,445 Customers = \$113,790/Month/Average Revenue

\$113,790 x 12 Months = \$1,365,480/Year Revenue

Total Metered Revenue	: \$1,365,480
Total Non-Rate Revenue Per Year	: \$ 81,668
Total Annual Revenue	: \$1,447,148
Total Required Annual Revenue	: \$1,365,533
Profit	\$ 81,615

**Five Year Projection of Revenue & Expenses:
(Based on 3% Increase/Year)**

	Year-1	Year-2	Year-3	Year-4	Year-5
Revenue	\$1,447,148	\$1,490,562	\$1,535,278	\$1,581,337	\$1,628,777
R & R Account	\$52,240	\$ 72,357	\$ 74,528	\$ 76,763	\$ 79,066
Expenses	\$ 978,334	\$1,007,684	\$1,037,914	\$1,069,051	\$1,101,123
Debt & Interest	\$ 336,959	\$336,959	\$336,959	\$336,959	\$336,959
DSCR (1.!) (R&R Account= Refurbishment & Replacement Account)	1.3	1.4	1.4	1.5	1.5

Cash Balances at the end of December 31, 2022: = \$1,845,907

Number of days cash balances could cover O&M: $\$978,334 / 365/\text{Days}/\text{Year} = \$2,680/\text{Day}$
 Cash Balances/ Average Daily Operational Expenses: $\$1,845,907 / \$2,680/\text{Day} = 688 \text{ Days}$

Recommended Water Rates Based on Rate Study Findings:

1st Recommendation: East End Water Improvement District #1 water rate study findings show that the present water rates are NOT set adequately to cover all present and projected debt, O&M and fund the required minimum 5% refurbishment and replacement account. The board of directors will need to adjust rates.

2nd Recommendation: East End Water Improvement District #1 findings show that this is a very well operated and expanding system. Water loss is something every water system has and the recommended level by the American Water Works Association (AWWA) is for a system to try and stay below 15%. Water loss can be from several possibilities water leaks, slow meters, flushing, and backwash water from the water treatment facility. Systems is to be commended for keeping water loss to 13.99 % water loss.

3rd Recommendation: ARWA recommends looking at rates annually and adjusting rates as necessary since inflation has had a major effect on all water industry products in the last couple of years. Recommend increasing rates for cost per thousand by 3% annually to keep up with inflation.

Rate Structure Recommendations:

Recommend adjusting water rates to the following rate schedule.

NEW Break-Even Water Rate:

Minimum Bill: 0-2,000 Gallons	\$24.40/2,000 gallons
Allover 2,000 Gallons	\$ 6.46/1,000 gallons

Asset Management Plan: System has attached their asset management plan.

Rate Study Findings: Based on the figures your system provided the Water Rate Study shows water rates are NOT adequate to meet Rules pertaining to Act 605 of 2021 and Act 545 of 2023.

Prepared By: Dennis Sternberg, CEO
Arkansas Rural Water Association

ARWA
P.O. Box860
Lonoke, AR. 72086

Office:501-676-2255
Email: arwads@arkansas.net



Certification that certifies Arkansas Rural Water Association is an approved "Water Provider Rate Study Provider" by Arkansas Natural Resource Commission and that the East End Water Improvement District #1 is required to have a "Water Rate Study" done by July 1, 2026, but requested a rate study be done to assure their financial condition for possible system improvements. This study complies with all rate study provider requirements and this study complies with Act 605 of 2021 and Act 545 of 2023 and the rules implementing the Acts. Based on the Rate study, the water rates will NEED to be increased. The rate study reviewed the costs for the following:

- a. Debt Service/Principal
- b. Debt Service/Interest
- c. Required Reserves
- d. Required Replacement & Refurbishment Account
- e. Additional Capital Expenses
- f. Annual Audit or an Agreed-Upon Procedures and Compilation Report
- g. All Annual Expenses
- h. All Annual Revenue

East End Water Improvement District rates utilize a flat rate with 2,000 gallons of water for the minimum and after that they are set at a cost per thousand for all over 2,000 gallons. ARWA would recommend the utility to use the recommended rate changes and continue to use the present flat rate structure for all customers. Also, recommend utility needs to do a 3% annual increase annually to guarantee generating sufficient revenue to cover all costs in their operation into the future.

This is the 10th day of March 2024.

Arkansas Rural Water Association
By: Dennis Sternberg
Title: CEO

Arkansas Rural Water Association
P.O. Box 860
Lonoke, AR. 72086
Office: 501-676-2255
Email: arwads@arkansas.net