



# Arkansas Rural Water Association

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**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: November 30, 2022**

**To: City of Cotter Water Department**

**From: Arkansas Rural Water Association**

**Re: Water Rate Study Based on 2021 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 systems customers based on your systems operation the past twelve months.

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.

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.

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: III. Refurbishment & Replacement Account**

**Refurbishment & Replacement Account  
Calculation Page**

1. Refurbishment and Replacement accounts, as required under Ark. Code Ann. § 14-234-802(e), shall only be used to make repairs or to replace water system appurtenances.
2. Providers may designate existing depreciation or replacement accounts as the Refurbishment and Replacement Account required by Ark. Code Ann. § 14-234-802(e), so long as the amount deposited therein complies with the provisions of Ark. Code Ann. § 14-234-802(e).
3. The calculation of the amount required to be deposited into a Refurbishment and Replacement Account pursuant to these Rules and Ark. Code Ann. § 14-234-802(e) shall be based on the gross operating revenues of a System.
4. The funds shall not be used for routine repairs. Expenditures of \$1,000 or less shall be considered routine repairs.
5. Utilization of funds from the Refurbishment and Replacement account must be approved by the Provider Board prior to its use.

Refurbishment & Replacement Account will be based on the gross operating revenues of a system.

Gross Operating Revenue: : \$251,594

Minimum of five percent (5%) of gross operating revenue: (5.0%) = : \$12,580

**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).

**No Debt**

**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, if any, relative to each.)

**No Interest**

**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.

: 23,404

**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).

: 34,252

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

: 480

**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 \$221,002 + NON-Metered Revenue \$29,300 + Transfer 1,292.00 = : \$251,594**

**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.)

: \$316,895

**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).

: \$27,420

**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 5.0% = : \$12,580

**Rules: IV Rate Studies for Retail Water Providers**

**Water Provider & 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.)

: \$356,895

**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.")

: \$4.76

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

: \$14.08

**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) : \$105,301

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

: \$61.96

**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.)

: \$18.84

**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.)

: 31.67 %

**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 = \$(65,301) / 0.00 - Total Debt (Principal & Interest)  
 DSCR Calculations = Net Operating Income / Total Debt (Principal & Interest) = (65,301) DSCR  
 ANRD Rules require at least a 1.1 DSCR  
 This shows Water Provider has (**not adequate**) amount of revenue to cover Debt.

Total Revenue (Meter Sales & Other Revenue)	\$ 251,594
Total Operating Expenses =	\$ 316,895
Refurbishment & Replacement Account =	\$ 12,580
Debt (principal and interest) =	\$ 0.00
Debt Service Coverage Ratio of 1.1 =	\$ (65,301)
Depreciation Account =	\$ 27,420
Total Revenue Required =	\$356,895

Based on the calculations of DSCR your system provided shows your DSCR is **(\$65,301)**.  
**The Cotter Water Department has no debt on the water system and has the \$65,301 is a negative revenue.**

Debt Service Coverage Ratio = Net Operating Income/Annual Debt  
 Calculations For Net Operating Income = Revenue – Operating Expense = Net Operating Income  
 Net Operating Income = \$40,000 / 0.00 - Total Debt (Principal & Interest)  
 DSCR Calculations = Net Operating Income / Total Debt (Principal & Interest) = 40,000 DSCR  
 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)	\$ 356,895
Total Operating Expenses =	\$ 316,895
Refurbishment & Replacement Account =	\$ 12,580
Debt (principal and interest) =	\$ 0.00
Debt Service Coverage Ratio of 1.1 =	\$ 40.000
Reserve Account =	\$ 27,420
Total Revenue Required =	\$356,895

Based on the calculations of DSCR your system provided shows your DSCR is **40,000.00**

**Summary of Rate Study Findings:**

**Recommended New Minimum Bill & Rates Per 1,000 Gallon**

Minimum Bill With 1,000 Gallons: \$18.84  
Calculated Operating Cost per 1,000 Gallons Funding Refurbishment/Replacement/Depreciation Account = \$14.08/1,000 Gallons

**Present water rates were last adjusted on: (12/17/09)**

Present Rates:  
Minimum Bill: \$16.07/1,000 Gallons  
Allover 1,000 Gallons are charged at: \$6.99 Cost Per 1000 Gallons

**Cotter Water Department** produced 34,252,000 Gallons of water from January 1, 2021, through December 31, 2021.

**Cotter Water Department** sold 23,404,000 Gallons of Water to their customers for the year of 2021.

Water Sold for the system showed to be 23,404,000 Gallons  
Water Produced 34,252,000 Gallons  
Water Loss for the system showed to be 10,848,000 Gallons Loss or 31.67 %.

**Cotter Water Department** showed that they have 480 customers for the 2021 year.

23,404,000 Gallons of Water / 480 customers = 48,758 Gallons/Year/Customer Average  
48,758 Gallons/Year/Customer / 12 Months/Year = 4,063 Gallons/Month Average Water Usage/Customer

**New Minimum Recommended Water Rates Based on Rate Study Findings:**

Minimum Bill = \$18.84 /1,000 Gallons Minimum  
14.08/1,000 Gallons  
Total Average Bill = \$61.96 Average/Customer/Month  
480 customers x \$61.96 Avg/Month/Customer x 12 Months = \$356,889.00/Year  
(\$36.36/Customer/Month More Than Present Rate)

New Rate Total Annual Projected Metered Revenue = \$356,889

Present Rate Total Annual Metered Revenue = \$251,694

Projected Increase of Revenue = \$105,195

**1<sup>st</sup> Recommendation:** Water provider system goal should be to maintain water loss to an acceptable level of 15% or less approximately. 31.67% is a high loss and should be tracked monthly to make sure water loss % doesn't increase and efforts are made to reduce water loss. Water can be lost through leaks in the system, meters that have slowed down due to age, fire hydrant flushing and source meters that are not included in calculation. ARWA has Circuit Riders that can assist system operation staff in performing water loss.

**2<sup>nd</sup> Recommendation:** System needs to increase Water Rate Structure by increasing Minimum Bill to at least \$18.84/Customer and adjust the per 1000 minimum bill to at least \$14.08/1,000 Gallons.

**3<sup>rd</sup> Recommendation:** Also, I recommend adjusting rates annually to "Cover Cost of Service Increases" (3%-5%) for inflation.

**New Water Rate Break-Even Recommendation:**

Minimum Bill \$18.84/Month/Customer with 1,000 Gallons Water  
 All over Minimum Bill Cost/1,000 Gallons = \$14.08/1,000 Gallons

**Five Year Projection of Revenue & Expenses:**

(Based on 3% Increase/Year)

	Year 1	Year 2	Year 3	Year 4	Year 5
Revenue	\$356,895	\$367,602	\$378,630	\$389,989	\$401,688
R & R Account (5%)	\$12,580	\$13,209	\$13,869	\$14,562	\$15,290
Expenses	\$316,895	\$326,402	\$336,194	\$346,279	\$356,667
Debt & Interest	\$ 27,420	\$27,420	\$27,420	\$27,420	\$27,420
DSCR	40,000	41,200	42,436	43,710	45,021

(R&R Account = Refurbishment & Replacement Account)

Cash Balances at the end of December 31, 2021: \$535,219.00

Number of days cash balances could cover O&M:  $\$316,895 / 365/\text{Days}/\text{Year} = \$868/\text{Day}$   
 Cash Balances / Average Daily Operational Expenses:  $\$535,219 / \$868/\text{Day} = 616 \text{ Days}$

**Rate Structure Recommendations:**

After "Minimum Bill" all cost of water are at one flat rate per 1,000 gallons. That provides fair rates to all customers.

**Asset Management Plan: See attached Letter from Cotter Water Department.**

**Short summary of systems assets:** Cotter has no Asset Management Plan at this time

**Rate Study Findings:** Based on the figures your system provided the Water Rate Study shows water rates **would need to be increased** to meet Rules pertaining to Act 605 of 2021.

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