

EXHIBIT 1

ANALYSIS AND RECOMMENDATIONS FOR WATER RATES

Christian County Water District

July, 2026

Prepared by
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Kentucky Rural Water Association

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EXECUTIVE SUMMARY

Christian County Water District requested that Kentucky Rural Water Association perform a water rate study and assist with an application to the Public Service Commission using Alternative Rate Filing procedures. The study is complete and the results are presented in this report.

In accordance with PSC regulations, the study is based on the most recent Annual Report on file with the Commission; in this case, the test period is calendar year 2025. The Schedule of Adjusted Operations (SAO) lists the revenues and expenses for 2025 and applies required adjustments. The adjustments are to recognize any changes in operations after the test year and include certain other items that are commonly required by the PSC. The specific adjustments for Christian County Water District are shown in the Schedule of Adjusted Operations (SAO) with notes for each provided on the Reference pages. Total pro-forma operating revenues for the District are \$4,520,361 and total pro-forma operating expenses are \$4,048,105.

The SAO also shows the computations for Revenue Requirements. Utilizing the Debt Service Coverage method accepted by the PSC, the total Revenue Required from the Sale of Water comes to \$4,423,222. This is \$8,177 more than the existing pro forma sales of \$4,415,045 and indicates an overall rate increase of .20 percent could be adopted should the Board vote to adopt.

Christian County Water District's existing water loss is 16.55 percent. Since PSC allows for only 15% water loss, an adjustment must be made to expenses. Purchased water and power have been adjusted for the difference of 1.55% or \$21,609 combined.

Computations from this study are included in the Schedule of Adjusted Operations with details provided in the Reference pages. The Depreciation Schedule is shown in Table A. The projected Debt Service Schedule is shown in Table B. The current and proposed water rates are shown in Table C. A comparison of existing and proposed bills is shown in Table D. The current Billing Analysis is shown in Table E along with the Proposed Billing Analysis in Table F should the Board decide to adopt the .20% rate increase.

SCHEDULE OF ADJUSTED OPERATIONS
CHRISTIAN COUNTY WATER DISTRICT

	Test Year			
	<u>2025</u>	<u>Adjustments</u>	<u>Ref.</u>	<u>Proforma</u>
<u>Operating Revenues</u>				
Total Metered Retail Sales	4,278,788	136,257	A	4,415,045
Private Fire Protection	4,180			4,180
Sales for Resale	17,878			17,878
Interdepartmental Sales				-
Other Water Revenues:				
Forfeited Discounts	52,076			52,076
Miscellaneous Service Revenues	31,182			31,182
Interdepartments Rents				-
Total Operating Revenues	4,384,104	136,257		4,520,361
<u>Operating Expenses</u>				
Operation and Maintenance				
Salaries and Wages - Employees	831,828	8,148	B	
		(15,170)	B	
				824,807
Salaries and Wages - Officers	30,000			30,000
Employee Pensions and Benefits		23,396	B	
		(6,434)	B	
			B	16,962
Purchased Water	1,298,138	(20,133)	C	
Purchased Water		245,990	C	1,523,995
Purchased Power	95,140	(1,476)	C	93,664
Maintenance and Repairs	266,707			266,707
Rental Expense	2,884			2,884
Professional Services	77,388			77,388
Office Supplies and Expense	293,188			293,188
Operating Materials and Supplies	59,568	(35,396)	D	24,172
Transportation Expenses	35,783			35,783
Insurance - Vehicle	56,321			56,321
Insurance - Gen. Liab. & Workers Comp.	3,500			3,500
Insurance - Other	123,716			123,716
Payroll taxes and fringe benefits	60,463	6,090	E	66,553
Rate Case Expense	-	3,112	F	3,112
Miscellaneous Expenses				-
Total Operation and Mnt. Expenses	3,234,624	208,127		3,442,751
Depreciation Expense	717,751	(186,834)	G	530,917
Taxes Other Than Income	74,436			74,436
Total Operating Expenses	4,026,811	21,294		4,048,105
Total Utility Operating Income	357,293	114,963		472,256

REVENUE REQUIREMENTS

Pro Forma Operating Expenses		4,048,105
Plus: Average Annual Principal and Interest Payments	H	574,624
Additional Working Capital	I	<u>114,925</u>
Total Revenue Requirement		4,737,653
Less: Other Operating Revenue		83,258
Private Fire Protection		4,180
Sales for Resale		17,878
Interest and Dividend Income		<u>226,993</u>
Revenue Required From Sales of Water		4,423,222
Less: Revenue from Sales with Present Rates		<u>4,415,045</u>
Required Revenue Increase		8,177
Percent Increase/(Decrease)		0.20%

REFERENCES

- A. The Current Billing Analysis results in pro forma water sales revenue of \$4,415,045. This indicates that an increase of \$136,257 to water sales is required to match current rates.
- B. Since 2025, there have been changes in wage rates. These changes result in an average annual wage increase of \$8,148. The utility also collected \$50,566 in tapping fees in 2025, These taps were installed by the utility and were recorded as labor and material expenses. Labor expense has been reduced by \$15,170 or 30% of the tapping fees to represent labor that can be capitalized per PSC recommendations. Total net change to labor for these two items is a reduction of \$7,022. In addition, employee pensions and benefits were increased by a total of \$16,962 representing a net change for medical and pension expense related to the additional wages.
- C. Water loss allowable by PSC is 15%. Christian County Water District has water loss of 16.55%. Therefore, the expenses for purchased water and purchase power above the 15% limit are not allowed in the rate base and are deducted. Purchased water expenses were decreased by \$20,133 and purchased power was decreased by \$1,476. Also included is additional cost for increase in contract price of water purchased from HWEA of \$.46 per thousand gallons effective 10-1-20-26 of \$245,990.
- D. The utility collected \$50,566 in tapping fees in 2025. These taps were installed by the utility and were recorded as labor and material expenses. Repairs and Maintenance expense have been reduced by \$35,396 or 70% of the tapping fees to represent materials and supplies that can be capitalized.
- E. The increase in salaries and wages also results in higher payroll taxes of \$6,090.
- F. The estimated cost of the rate case expenses is amortized over three years in the amount of \$3,112.
- G. KYPSC requires adjustments to a water utility's depreciation expense when asset lives fall outside the ranges recommended by NARUC in its publication titled "Depreciation Practices for Small Utilities". Therefore, adjustments are included to bring asset lives to the midpoint of the recommended ranges resulting in a decrease in depreciation expense of \$186,834.
- H. The annual debt service payments for the District's loans are shown in Table B. The five-year average of these payments of \$574,628 is added in the revenue requirement calculation.
- I. The amount shown in Table B for coverage on long-term debt is required by the District's loan documents. This amount of \$114,925 is included in the revenue requirement as Additional Working Capital.

Table A
DEPRECIATION EXPENSE ADJUSTMENTS
Christian County Water District

<u>Asset</u>	<u>Date in Service</u>	<u>Original Cost *</u>	<u>Reported Life</u>	<u>Depr. Exp.</u>	<u>Proforma Life</u>	<u>Depr. Exp.</u>	<u>Depreciation Expense Adjustment</u>
<u>General Plant</u>							
Structures & Improvements	various	795,734	varies	26,515	37.5	21,220	(5,295)
Communication & Computer Eqmt.	various	28,442	varies	-	10.0	2,844	2,844
Office Furniture & Equipment	various	16,113	varies	39,820	22.5	716	(39,104)
Power Operated Equipment	various	288,226	varies	41,456	12.5	23,058	(18,398)
Tools, Shop, & Garage Equipment	various	9,267	varies		17.5	530	530
Tank Repairs & Painting	various	122,761	varies		15.0	8,184	8,184
<u>Pumping Plant</u>							
Structures & Improvements	various	172,754	varies		37.5	4,607	4,607
Telemetry	03/21/01	1,200	40.0	240	10.0	120	(120)
Pumping Equipment	various	701,661	40.0	18,895	20.0	35,083	16,188
<u>Transmission & Distribution Plant</u>							
Hydrants	various	665,876	50	16,449	50.0	16,449	-
Transmission & Distribution Mains	various	18,141,020	50	389,859	62.5	290,256	(99,603)
Meter Installations	various	711,915	15	54,776	45.0	15,820	(38,956)
Meter Change-outs	various	697,487	varies		15.0	46,499	46,499
Pump Equipment	05/01/94	2,969	50		20.0	148	148
Tank Fence	06/20/91	3,380	50		37.5	90	90
Services	various	214,574	50	4,953	40.0	5,364	411
Reservoirs & Tanks	various	433,308	50	63,707	45.0	9,629	(54,078)
Tank Painting & Repairs	various	414,633	varies		15.0	27,642	27,642
<u>Transportation Equipment</u>							
Entire Group	various	153,754	varies	60,408	7.0	21,965	(38,443)
<u>Water Treatment Plant</u>							
Transmission & Distribution Mains	various	43,260	varies	673	62.5	692	19
TOTALS		\$ 23,618,333		\$ 717,751		\$ 530,917	\$ (186,834)

Table B
DEBT SERVICE SCHEDULE
Christian County Water District
CY 2027 - 2031

	CY 2027		CY 2028		CY 2029		CY 2030		CY 2031		TOTALS
	Interest & Fees		Interest & Fees		Interest & Fees		Interest & Fees		Interest & Fees		
	Principal		Principal		Principal		Principal		Principal		
2004 RD Loan Phase VI	10,500	11,441	11,000	11,756	11,500	10,500	12,000	9,997	12,500	9,472	\$ 110,666
KRWFC Series 2013B	135,000	8,453	145,000	3,833	30,000	945					323,230
KRWFC Series 2016B	175,000	20,281	180,000	15,175	180,000	9,550	190,000	3,538			773,544
Series 2018 Phase VIII	34,000	42,845	35,000	41,910	36,000	40,948	37,000	39,958	38,000	38,940	384,600
KRWFC Series 2020G	45,000	37,969	50,000	35,606	50,000	32,981	50,000	31,856	55,000	30,231	418,644
KRWFC Series 2021C	115,000	53,155	125,000	47,175	135,000	40,675	140,000	33,655	145,000	27,775	862,435
TOTALS	514,500	174,143	546,000	155,455	442,500	135,599	429,000	119,003	250,500	106,418	\$ 2,873,118
Average Annual Principal & Interest											\$ 574,624
Average Annual Coverage											\$ 114,925

TABLE C

CURRENT AND PROPOSED RATES

CHRISTIAN COUNTY WATER DISTRICT

	<u>Current</u>	<u>Proposed</u>	<u>Difference</u>	
<u>5/8 Inch X 3/4 Inch Meter</u>				
First 0 gallons	\$20.65 per month	\$20.69 per month	\$0.04	0.20%
All Over 0 gallons	\$7.49 per thousand gallons	\$7.51 per thousand gallons	\$0.01	0.20%
<u>1 Inch Meter</u>				
First 5,000 gallons	\$58.42 per month	\$58.54 per month	\$0.12	0.20%
All Over 5,000 gallons	\$7.49 per thousand gallons	\$7.51 per thousand gallons	\$0.01	0.20%
<u>1 1/2 Inch Meter</u>				
First 10,000 gallons	\$95.89 per month	\$96.08 per month	\$0.19	0.20%
All Over 10,000 gallons	\$7.49 per thousand gallons	\$7.51 per thousand gallons	\$0.01	0.20%
<u>2 Inch Meter</u>				
First 50,000 gallons	\$395.58 per month	\$396.37 per month	\$0.79	0.20%
All Over 50,000 gallons	\$7.49 per thousand gallons	\$7.51 per thousand gallons	\$0.01	0.20%
<u>4 Inch Meter</u>				
First 100,000 gallons	\$770.19 per month	\$771.73 per month	\$1.54	0.20%
All Over 100,000 gallons	\$7.49 per thousand gallons	\$7.51 per thousand gallons	\$0.01	0.20%

TABLE D
EXISTING AND PROPOSED BILLS
CHRISTIAN COUNTY WATER DISTRICT

<u>Gallons</u> <u>per Month*</u>	<u>Meter</u> <u>Size</u>	<u>Existing</u> <u>Bill</u>	<u>Proposed</u> <u>Bill</u>	<u>Change</u>	<u>Percentage</u>
-	5/8 x 3/4"	\$ 20.65	\$ 20.69	\$ 0.04	0.20%
2,000	5/8 x 3/4"	\$ 35.63	\$ 35.70	\$ 0.07	0.20%
4,000	5/8 x 3/4"	\$ 50.61	\$ 50.71	\$ 0.10	0.20%
6,000	5/8 x 3/4"	\$ 65.59	\$ 65.72	\$ 0.13	0.20%
8,000	5/8 x 3/4"	\$ 80.57	\$ 80.73	\$ 0.16	0.20%
10,000	5/8 x 3/4"	\$ 95.55	\$ 95.74	\$ 0.19	0.20%
15,000	5/8 x 3/4"	\$ 133.00	\$ 133.27	\$ 0.27	0.20%
20,000	5/8 x 3/4"	\$ 170.45	\$ 170.79	\$ 0.34	0.20%
25,000	1"	\$ 208.22	\$ 208.64	\$ 0.42	0.20%
30,000	1"	\$ 245.67	\$ 246.16	\$ 0.49	0.20%
40,000	1"	\$ 320.57	\$ 321.21	\$ 0.64	0.20%
50,000	1"	\$ 395.47	\$ 396.26	\$ 0.79	0.20%
75,000	2"	\$ 582.83	\$ 584.00	\$ 1.17	0.20%
100,000	2"	\$ 770.08	\$ 771.62	\$ 1.54	0.20%
200,000	2"	\$ 1,519.08	\$ 1,522.12	\$ 3.04	0.20%
500,000	2"	\$ 3,766.08	\$ 3,773.62	\$ 7.54	0.20%

* Highlighted usage represents the average residential bill.

Table E
CURRENT BILLING ANALYSIS WITH 2025 USAGE & EXISTING RATES
CHRISTIAN COUNTY WATER DISTRICT

SUMMARY				
COMPONENT	BILLS	GALLONS	REVENUE	
Minimum Bill	77,585	9,055,721	\$ 1,715,170.31	
All Over Minimum	<u>-</u>	<u>366,578,391</u>	<u>\$ 2,745,672.15</u>	
Total Metered Retail Sales	77,585	375,634,112	\$ 4,460,842.46	
Less Adjustments			\$ (45,725.74)	
Total		375,634,112	\$ 4,415,116.72	
From PSC Annual Rep (Tot Metered Sales)		<u>430,522,000</u>	<u>\$ 4,278,860.00</u>	
Difference		54,887,888	\$ 136,256.72	Adjustment to SAO Billed Revenues
Mainly due to contract sales HWEA		51,079,409	3.2%	

5/8 INCH X 3/4 INCH METER					
	USAGE	BILLS	GALLONS	RATE	REVENUE
FIRST	-	75,468	-	\$20.65	\$ 1,558,414.20
ALL OVER	-	<u>-</u>	<u>310,403,374</u>	<u>\$7.49</u>	<u>\$ 2,324,921.27</u>
		75,468	310,403,374		\$ 3,883,335.47

1 INCH METER					
	USAGE	BILLS	GALLONS	RATE	REVENUE
FIRST	5,000	1,810	6,766,814	\$58.42	\$ 105,740.20
ALL OVER	5,000	<u>-</u>	<u>28,376,788</u>	<u>\$7.49</u>	<u>\$ 212,542.14</u>
		1,810	35,143,602		\$ 318,282.34

1 1/2 INCH METER					
	USAGE	BILLS	GALLONS	RATE	REVENUE
FIRST	10,000	235	1,612,104	\$95.89	\$ 22,534.15
ALL OVER	10,000	<u>-</u>	<u>8,684,607</u>	<u>\$7.49</u>	<u>\$ 65,047.71</u>
		235	10,296,711		\$ 87,581.86

2 INCH METER					
	USAGE	BILLS	GALLONS	RATE	REVENUE
FIRST	50,000	72	676,803	\$395.58	\$ 28,481.76
ALL OVER	50,000	<u>-</u>	<u>19,113,622</u>	<u>\$7.49</u>	<u>\$ 143,161.03</u>
		72	19,790,425		\$ 171,642.79

4 INCH METER					
	USAGE	BILLS	GALLONS	RATE	REVENUE
FIRST	100,000	-	-	\$770.19	\$ -
ALL OVER	100,000	<u>-</u>	<u>-</u>	<u>\$7.49</u>	<u>\$ -</u>
		-	-		\$ -

Table F

**PROPOSED BILLING ANALYSIS WITH 2025 USAGE & PROPOSED RATES
CHRISTIAN COUNTY WATER DISTRICT**

SUMMARY

COMPONENT	BILLS	GALLONS	REVENUE				
Minimum Bill	77,585	9,055,721	\$ 1,718,600.59				
All Over Minimum	<u>-</u>	<u>366,578,391</u>	<u>\$ 2,751,170.82</u>				
Total Metered Retail Sales	77,585	375,634,112	\$ 4,469,771.41				
Less Adjustments			<u>\$ (45,817.19)</u>				
Total			\$ 4,423,954.22	\$4,423,222.15	\$ 732.07	0.017%	
				Revenue Requirement	Difference		

5/8 INCH X 3/4 INCH METER

	USAGE	BILLS	GALLONS	RATE	REVENUE
FIRST	-	75,468	-	\$20.69	\$ 1,561,531.03
ALL OVER	-	-	310,403,374	\$7.51	<u>\$ 2,329,577.32</u>
		75,468	310,403,374		\$ 3,891,108.35

1 INCH METER

	USAGE	BILLS	GALLONS	RATE	REVENUE
FIRST	5,000	1,810	6,766,814	\$58.54	\$ 105,951.61
ALL OVER	5,000	-	28,376,788	\$7.51	<u>\$ 212,967.79</u>
		1,810	35,143,602		\$ 318,919.40

1 1/2 INCH METER

	USAGE	BILLS	GALLONS	RATE	REVENUE
FIRST	10,000	235	1,612,104	\$96.08	\$ 22,579.22
ALL OVER	10,000	-	8,684,607	\$7.51	<u>\$ 65,177.98</u>
		235	10,296,711		\$ 87,757.20

2 INCH METER

	USAGE	BILLS	GALLONS	RATE	REVENUE
FIRST	50,000	72	676,803	\$396.37	\$ 28,538.73
ALL OVER	50,000	-	19,113,622	\$7.51	<u>\$ 143,447.73</u>
		72	19,790,425		\$ 171,986.46

4 INCH METER

	USAGE	BILLS	GALLONS	RATE	REVENUE
FIRST	100,000	-	-	\$771.73	\$ -
ALL OVER	100,000	-	-	\$7.51	<u>\$ -</u>
		-	-		\$ -