

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF WEST) CASE NO.
CARROLL WATER DISTRICT FOR RATE) 2017-00244
ADJUSTMENT)

NOTICE OF FILING OF COMMISSION STAFF REPORT

Notice is hereby given that, in accordance with the Commission's Order of August 18, 2017, the attached report containing the findings of Commission Staff regarding the Applicant's proposed rate adjustment has been filed in the record of the above-styled proceeding. Pursuant to the Commission's August 18, 2017 Order, West Carroll Water District is required to file written comments regarding the findings of Commission Staff no later than 14 days from the date of this report.



Gwen R. Pinson
Executive Director
Public Service Commission
P.O. Box 615
Frankfort, KY 40602

DATE DEC 04 2017

cc: Parties of Record

STAFF REPORT
ON
WEST CARROLL WATER DISTRICT
CASE NO. 2017-00244

West Carroll Water District (“West Carroll”) is a water utility district, organized pursuant to KRS Chapter 74, that owns and operates a water distribution system through which it provides retail water service to approximately 959 customers residing in Carroll, Henry, and Trimble counties, Kentucky.¹ On June 23, 2017, West Carroll tendered an application (“Application”) to the Commission requesting to increase its water service rates pursuant to 807 KAR 5:076. After deficiencies were cured, West Carroll’s Application was accepted for filing on August 4, 2017. To ensure the orderly review of the Application, the Commission established a procedural schedule by Order dated August 18, 2017.

West Carroll based its requested rates on a historical test period that coincides with the reporting period shown in its most recent Annual Report on file with the Commission at the time it filed the Application, the calendar year ended December 31, 2016, as required by 807 KAR 5:076, Section 9.

Although West Carroll provided exhibits demonstrating that a 27.84 percent increase was reasonable, it did not request rates that would generate such additional annual revenues. The rates requested by West Carroll would increase the monthly bill of

¹ *Annual Report of West Carroll Water District to the Public Service Commission for the Calendar Year Ended December 31, 2016 (“Annual Report”)* at 12 and 48.

a typical residential customer² by \$10.22, from \$51.11 to \$61.33, or approximately 20.00 percent. West Carroll did not explain why it requested the lower amount. West Carroll presented financial exhibits in the Application that show how it calculated the amount of increase it could have justified. The exhibits are summarized below in condensed form.

Pro Forma Operating Expenses	\$ 556,804
Plus: Average Annual Principal and Interest Payments	73,411
Additional Working Capital	<u>14,682</u>
Overall Revenue Requirement	644,897
Less: Other Operating Revenue	(22,647)
Interest Income	<u>(352)</u>
Revenue Required from Rates	621,898
Less: Pro Forma Present Rate Service Revenues	<u>(486,483)</u>
Required Revenue Increase	<u>\$ 135,415</u>
Percentage Increase	<u>27.84%</u>

To determine the reasonableness of the rates requested by West Carroll, Staff performed a limited financial review of West Carroll's test-year operations. The scope of Staff's review was limited to determining whether operations reported for the test year were representative of normal operations. Known and measurable changes to test-year operations were identified, and adjustments were made when their effects were deemed to be material. Insignificant and immaterial discrepancies were not necessarily pursued or addressed.

Staff's findings are summarized in this report. Ariel Miller reviewed the calculation of West Carroll's Overall Revenue Requirement. Jason Green reviewed West Carroll's reported revenues and rate design.

² A typical residential customer purchases 5,000 gallons of water per month through a 5/8-inch x 3/4-inch meter.

Summary of Findings

1. Overall Revenue Requirement and Required Revenue Increase. By applying the Debt Service Coverage (“DSC”) method, as generally accepted by the Commission, Staff found that West Carroll’s Overall Revenue Requirement is \$608,763 and that a \$99,372 revenue increase, or 20.43 percent, to pro forma present rate revenues is necessary to generate the Overall Revenue Requirement.

2. Water Service Rates. West Carroll proposed to increase its current water service rates by approximately 20.00 percent evenly across the board. West Carroll has not performed a cost-of-service study (“COSS”). The Commission has previously found that an across-the-board increase is an appropriate and equitable method of cost allocation in the absence of a COSS. Staff finds that an across-the-board increase to all rate classes is the appropriate means to allocate the increased revenue requirement. The rates set forth in the Attachment to this report are based upon the revenue requirement as calculated by Staff and will produce sufficient revenues from water sales to recover the \$585,764 Revenue Required from Rates as determined by Staff, an approximate 20.43 percent increase. These rates will increase a typical residential customer’s monthly water bill from \$51.11 to \$62.30, an increase of \$11.19, or approximately 21.89 percent.

Pro Forma Operating Statement

West Carroll’s Pro Forma Operating Statement for the test year ended December 31, 2016, as determined by Staff, appears below.

	Test Year	Adjustment (Ref.)	Pro Forma
Operating Revenues			
Sales of Water	\$ 486,483	\$ (91) (A)	\$ 486,392
Other Water Revenues	22,647		22,647
Total Operating Revenues	<u>509,130</u>	<u>(91)</u>	<u>509,039</u>
Operating Expenses			
Operation and Maintenance Expenses			
Salaries and Wages - Commissioners	9,000		9,000
Purchased Water	123,517	(21,405) (B)	102,112
Purchased Power for Pumping	11,553	(2,002) (B)	9,551
Materials and Supplies	21,668		21,668
Contractual Services	269,086	(10,142) (C)	258,944
Insurance	8,407		8,407
Bad Debt Expense	5,492		5,492
Miscellaneous Expense	1,257		1,257
Total Operation and Maintenance Expenses	449,980	(33,550)	416,430
Taxes Other Than Income	1,717		1,717
Depreciation	105,107		105,107
Total Operating Expenses	<u>556,804</u>	<u>(33,550)</u>	<u>523,254</u>
Net Operating Income	(47,674)	33,459	(14,215)
Interest Income	352		352
Income Available to Service Debt	<u>\$ (47,322)</u>	<u>\$ 33,459</u>	<u>\$ (13,863)</u>

(A) Billing Analysis Adjustment. West Carroll provided a billing analysis showing the gallons of water billed to retail customers during the test year. Applying the water service rates that were in effect during the test year to the water sales shown in the billing analysis, Staff determined that a billing analysis adjustment is appropriate that decreases test-year revenues by \$91.

(B) Water Loss. In its Annual Report, West Carroll reported water loss of 32.33 percent.³ 807 KAR 5:066, Section 6(3), limits water loss to 15 percent for ratemaking purposes unless an alternative level is found reasonable by the Commission.⁴ As shown below, Staff calculated the cost to purchase and pump excess water loss to be \$23,408, and reduced test-year expenses accordingly.

	Test Year	Times: Excess Water Loss Percentage	Decrease
Purchased Water	\$ 123,517	-17.33%	\$ (21,405)
Purchased Power	11,553	-17.33%	(2,002)

(C) Contracted Services. In the test year, West Carroll reported \$269,086 in Contractual Services paid. Included in this amount was \$5,970 in audit fees, \$88 in legal fees, \$4,708 in water sampling, and \$258,320 that was paid to Carrollton Utilities (“CU”) pursuant to an Operational Agreement (“Agreement”) between CU and West Carroll. As

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Water Produced and Purchased	64,018,000
Less: Water Sold	(43,283,000)
Water Used for Flushing	<u>(39,000)</u>
Water Loss	<u>20,696,000</u>
Water Loss Percentage	<u>32.33%</u>

⁴ 807 KAR 5:066, Section 6(3), states: “Unaccounted-for water loss. Except for purchased water rate adjustments for water districts and water associations, and rate adjustments pursuant to KRS 278.023(4), for rate making purposes a utility's unaccounted-for water loss shall not exceed fifteen (15) percent of total water produced and purchased, excluding water used by a utility in its own operations. Upon application by a utility in a rate case filing or by separate filing, or upon motion by the commission, an alternative level of reasonable unaccounted-for water loss may be established by the commission. A utility proposing an alternative level shall have the burden of demonstrating that the alternative level is more reasonable than the level prescribed in this section.”

a part of the Agreement, which was last amended September 21, 2017, CU agrees to provide “system operation and maintenance, customer billing services, and accounting responsibilities” for which West Carroll agrees to compensate CU.⁵ West Carroll has no employees; all business is conducted by CU for West Carroll pursuant to the Agreement. Staff reviewed the financial information and allocations on which CU based its contracted annual compensation and determined it to be reasonable. The current amended annual compensation due to CU is \$248,178. Staff reduced the amount of Contractual Services by \$10,142⁶ to reflect the annual amount of the amended Agreement.

Overall Revenue Requirement and Required Revenue Increase

The Commission has historically applied a DSC method to calculate the Overall Revenue Requirement of water districts and water associations. This method allows for recovery of: 1) Cash-related pro forma operating expenses; 2) recovery of depreciation expense, a non-cash item, to provide working capital;⁷ 3) the average annual principal

⁵ Response to the Attorney General’s First Request for Information, Item 3, Exhibit B, at 2.

⁶

Re-negotiated Contract Amount	\$	248,178
Less: Contract Fees for 2016		(258,320)
Adjustment	\$	(10,142)

⁷ The Kentucky Supreme Court has held that the Commission must permit a water district to recover its depreciation expense through its rates for service to provide internal funds for renewing and replacing assets. See *Public Serv. Comm’n of Kentucky v. Dewitt Water Dist.*, 720 S.W.2d 725, 728 (Ky. 1986). Although a water district’s lenders require that a small portion of the depreciation funds be deposited annually into a debt reserve/depreciation fund until the account’s balance accumulates to a required threshold, neither the Commission nor the Court requires that revenues collected for depreciation be accounted for separately from the water district’s general funds or that depreciation funds be used only for asset renewal and replacement. The Commission has recognized that the working capital provided through recovery of depreciation expense may be used for purposes other than renewal and replacement of assets. See Case No. 2012-00309, *Application of Southern Water and Sewer District for an Adjustment in Rates Pursuant to the Alternative Rate Filing Procedure for Small Utilities* (Ky. PSC Dec. 21, 2012)

and interest payments on all long-term debts, and 4) working capital that is in addition to depreciation expense.

A comparison of West Carroll's and Staff's calculations of the Overall Revenue Requirement and Required Revenue Increase using the DSC method is shown below.

	West Carroll	Staff	
Pro Forma Operating Expenses	\$ 556,804	\$ 523,254	
Plus: Average Annual Principal and Interest Payments	73,411	71,257	(1)
Additional Working Capital	14,682	14,251	(2)
	<hr/>	<hr/>	
Overall Revenue Requirement	644,897	608,763	
Less: Other Operating Revenue	(22,647)	(22,647)	
Interest Income	(352)	(352)	
	<hr/>	<hr/>	
Revenue Required from Rates	621,898	585,764	
Less: Pro Forma Present Rate Service Revenues	(486,483)	(486,392)	
	<hr/>	<hr/>	
Required Revenue Increase	\$ 135,415	\$ 99,372	
Percentage Increase	<hr/> <hr/> 27.84%	<hr/> <hr/> 20.43%	

(1) Average Annual Principal and Interest Payments. West Carroll currently has three outstanding bonds payable to the United States Department of Agriculture Rural Development ("RD") and two interlocal agreements with Carrollton Utilities on notes payable to the Kentucky Infrastructure Authority ("KIA"). In its Application, West Carroll requested recovery of its calculation of the average annual principal and interest payments on these loans of \$73,411. Staff finds, as shown below, that the average annual debt payment to be included in calculating West Carroll's Overall Revenue Requirement should be the five-year average of the annual principal and interest payments on these loans during the years 2018 through 2022, rather than the amount requested by West Carroll. This five-year average of \$71,257 will allow West Carroll

recovery of the debt payments that will be made during the anticipated life of the rates authorized by the Commission in this proceeding.⁸

Five-Year Average of Debt Payments	
Year	Annual Debt Payment
2018	\$ 72,545
2019	72,044
2020	73,021
2021	72,913
2022	<u>65,761</u>
Total	356,285
Divide by: 5 years	<u>5</u>
Average Annual Principal and Interest Payment	<u>\$ 71,257</u>

(2) Additional Working Capital. The DSC method, as historically applied by the Commission, includes an allowance for additional working capital that is equal to the minimum net revenues required by a district's lenders that are above its average annual debt payments. In addition to depreciation expense, West Carroll requested recovery of an allowance for working capital that is equal to 120 percent of its average annual debt payments.

RD requires that West Carroll charge rates that produce net revenues that are at least 120 percent of its average annual debt payments. Following the Commission's

⁸ Generally, the anticipated life of a utility's service rates is based on the frequency of the utility's previous rate case filings, but is no longer than five years, since rates tend to become obsolete due to changes that will likely occur to the utility's cost of service in a five-year period. West Carroll last adjusted its monthly water service rates pursuant to 807 KAR 5:076 in 2013. Case No. 2012-00433, *Application of West Carroll Water District for an Adjustment in Rates Pursuant to the Alternative Rate Filing Procedure for Small Utilities* (Ky. PSC Apr. 19, 2013). Therefore, Staff finds that the anticipated life of the rates approved in this proceeding is five years.

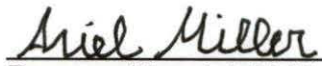
historic practice, Staff calculated West Carroll's allowance for additional working capital, based on a DSC ratio of 1.20, to be \$14,251, as shown below.⁹ Staff included this amount in the calculation of West Carroll's Overall Revenue Requirement.

Average Annual Principal and Interest	\$ 71,257
Times: DSC Coverage Ratio	<u>120%</u>
 Total Net Revenues Required	 85,508
Less: Average Annual Principal and Interest Payments	<u>(71,257)</u>
 Additional Working Capital	 <u>\$ 14,251</u>

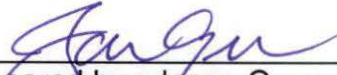
⁹ Inclusion of the additional working capital in West Carroll's revenue requirement is not necessary for it to earn revenues that meet the minimum DSC ratio required by its lenders. As depreciation is a noncash item, it is excluded from the ratio calculation, which is actually a measure of cash flow. As shown below, West Carroll's minimum DSC ratio is met with or without the inclusion of additional working capital.

	With Additional Working Capital	Without Additional Working Capital
Overall Revenue Requirement	\$ 608,763	\$ 594,511
Less: Operating and Maintenance Expense	(416,430)	(416,430)
Taxes Other Than Income	<u>(1,717)</u>	<u>(1,717)</u>
 Net Revenues	 190,615	 176,364
Divided by: Average Annual Debt Payments	<u>71,257</u>	<u>71,257</u>
 DSC Ratio	 <u>268%</u>	 <u>248%</u>

Signatures



Prepared by: Ariel Miller
Water and Sewer Branch
Division of Financial Analysis



Prepared by: Jason Green
Water and Sewer Branch
Division of Financial Analysis

ATTACHMENT

ATTACHMENT TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE
COMMISSION IN CASE NO. 2017-00244 DATED **DEC 04 2017**

Monthly Water Rates

First	2,000	Gallons	\$30.83 Minimum Bill
Next	3,000	Gallons	10.49 per 1,000 Gallons
Next	5,000	Gallons	9.45 per 1,000 Gallons
Next	10,000	Gallons	8.41 per 1,000 Gallons
Over	20,000	Gallons	7.41 per 1,000 Gallons

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