

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF WEST CARROLL WATER)
DISTRICT FOR AN ADJUSTMENT IN RATES) CASE NO.
PURSUANT TO THE ALTERNATIVE RATE) 2012-00433
FILING PROCEDURE FOR SMALL UTILITIES)

NOTICE OF FILING OF COMMISSION STAFF REPORT

Notice is hereby given that, in accordance with the Commission's Order of January 4, 2013, the attached report containing the findings and recommendations of Commission Staff regarding the Applicant's proposed rate adjustment has been filed in the record of the above-styled proceeding.



Jeff Derouen
Executive Director
Public Service Commission
P.O. Box 615
Frankfort, KY 40602

DATED JAN 29 2013

cc: Parties of Record

STAFF REPORT
ON
WEST CARROLL WATER DISTRICT
CASE NO. 2012-00433

West Carroll Water District ("West Carroll") provides water service to approximately 981 customers residing in the Kentucky Counties of Carroll, Henry, and Trimble.¹ On November 26, 2012, it filed an application with the Commission requesting to adjust its rates for water service based upon adjusted test-year operations ending December 31, 2011.

With its application, West Carroll provided financial exhibits² demonstrating that a revenue increase of \$38,021, or 7.71 percent, is justified. These exhibits are presented in condensed form below.

Pro Forma Operating Expenses	\$468,491
Plus: Average Annual Debt Principal and Interest Payments	72,386
Debt Service Coverage	<u>14,477</u>
Total Revenue Requirement	555,354
Less: Other Operating Revenue and Non-Operating Revenue	<u>(24,421)</u>
Total Revenue Required from Water Sales	530,933
Less: Pro Forma Present Rate Water Sales	<u>(492,912)</u>
Revenue Increase Warranted	<u>\$38,021</u>
Percentage Increase	<u>7.71%</u>

West Carroll made an error in its application that has a material effect on its required revenue increase. In Attachment A, and in the condensed financial exhibit

¹ Annual Report of West Carroll Water District to the Public Service Commission of Kentucky for the Year Ended December 31, 2011, at 5 and 27.

² See App Attachments A, C, and D.

above, Revenues from Sales at Present Rates are erroneously stated at \$492,912. This is shown above in the condensed financial exhibit. The correct amount shown in the billing analysis at Attachment D to the Application is \$468,478. Correction of this error increases the required revenue increase shown in the Application from \$38,022 to \$62,456, which is a 13.33 percent³ increase.

West Carroll's proposed rates will produce additional revenues of \$38,201, an increase of 7.71 percent over proforma test-year revenues from water sales. To develop these rates, West Carroll increased current water service rates across the board by 7.71 percent.⁴ These rates would increase the monthly cost of 5,000 gallons of water from \$46.12 to \$49.69, an increase of \$3.57 or 7.74 percent.

To determine the reasonableness of the proposed rates, Commission Staff ("Staff") performed a limited financial review of West Carroll's test-year operations. This 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

³ Corrected Required Increase to Revenues	\$62,459
Divide by: Pro Forma Present Rate Water Sales	<u>468,478</u>
Percentage Increase	<u>13.33%</u>

⁴

		Current	Increase	Requested
First	2,000 gallons	\$ 22.54	7.71%	\$ 24.28
Next	3,000 gallons	7.86	7.71%	8.47
Next	5,000 gallons	7.08	7.71%	7.63
Next	10,000 gallons	6.30	7.71%	6.79
All Over	20,000 gallons	5.55	7.71%	5.98

to be material. All insignificant or immaterial discrepancies were not pursued and were not addressed.

Staff's findings and recommendations are summarized in this report. Daryl Parks reviewed the calculation of revenue requirements. Jason Green reviewed the billing analysis, reported revenues, and the method used to calculate the proposed rates. James Rice and George Wakim reviewed the estimated service lives that the water district used to calculate its depreciation expense.

Staff finds, using the approach that the Commission has historically employed to determine a water district's revenue requirements, that a revenue increase of \$50,642, or 10.8 percent, is required. To calculate the rates to generate this revenue increase, Staff followed the method applied by West Carroll and increased current rates evenly across the board. This method allocates the revenue requirement to all customers in an equal manner. These rates, which are set forth in Attachment A, would increase the monthly cost of 5,000 gallons of water from \$46.12 to \$51.11, an increase of 10.8 percent.

Staff recommends that the Commission authorize rates that will produce revenues that are at least equal to those that West Carroll's proposed rates would produce, but no greater than the level that the rates in Attachment A will produce. While the rates requested by West Carroll will not produce the full revenue requirement calculated by Staff, as shown below, they will produce net revenues that exceed the 120

percent Debt Service Coverage (“DSC”) ratio required by West Carroll’s debt agreements.⁵

Water Sales at Rates Requested by West Carroll	\$ 504,597
Other Water Revenues	22,909
Interest Income	<u>1,512</u>
Total Annual Revenues at Requested Rates	529,018
Less: Operating Expenses	(461,388)
Add Back: Depreciation Expense	<u>80,967</u>
Net Revenues	148,597
Divide by: Average Annual Debt Payments 2012-2014	<u>68,765</u>
DSC Ratio	<u><u>216%</u></u>

Pro Forma Operating Statement

West Carroll reported test-year operating revenues of \$489,999 and test-year operating expenses of \$560,733. It proposed numerous adjustments to these amounts that it considered known and measurable. These adjustments are detailed on the Pro Forma Operating Statement included in West Carroll’s Application at Attachment C. Staff prepared a Pro Forma Operating Statement detailing its recommended adjustments to test-year operations. Staff’s statement is shown below followed by discussion of all adjustments made by Staff and by West Carroll.

⁵ Rural Development (“RD”) currently holds West Carroll’s outstanding revenue bonds. The resolutions authorizing these bond issuances require West Carroll to charge water service rates that produce Net Revenues that are at least 120 percent of the average annual principal and interest payments of all RD bonds and all other long-term debts that are on par with these bonds.

	<u>Test Year</u>	<u>Adjustment</u>	<u>Ref.</u>	<u>Pro Forma Present Rates</u>
Operating Revenue				
Water Sales	\$ 471,489	\$ (3,011)	(A)	\$ 468,478
Other Water Revenues	18,510	4,399	(B)	22,909
Total Operating Revenue	<u>489,999</u>	<u>1,388</u>		<u>491,387</u>
Operating Expenses				
Operation and Maintenance Expense				
Salaries and Wages - Officers	9,000			9,000
Purchased Water	134,211	(22,816)	(C)	111,395
Purchased Power	12,512	(2,127)	(C)	10,385
Materials and Supplies	18,425			18,425
Contractual Services	203,376	3,381	(D)	206,757
Water Testing	6,468			6,468
Insurance	7,485			7,485
Bad Debt Expense	4,176		(E)	4,176
Miscellaneous Expenses	4,726	(53)	(F)	4,673
Total Operation and Maintenance Expenses	400,379	(21,615)		378,764
Depreciation Expense	158,697	77,730	(G)	80,967
Amortization Expense	268			268
Taxes Other Than Income	1,389			1,389
Total Operating Expenses	<u>560,733</u>	<u>56,115</u>		<u>461,388</u>
Net Operating Income	(70,734)	(54,727)		29,999
Plus: Interest Income	1,512			1,512
Gain on Disposal of Asset	1,096	(731)	(H)	365
Income Available to Service Debt	<u>\$ (68,126)</u>	<u>\$ (55,458)</u>		<u>\$ 31,876</u>

(A) Water Sales. West Carroll reported test-year water sales revenue in the amount of \$471,489. It proposed to decrease this amount by \$1,486 to \$470,003,

based on its billing analysis.⁶ In the analysis, billed revenues were recalculated by applying present rates to test-year customer usages.⁷

The billing analysis does not support the adjustment requested by West Carroll. The analysis states total billed revenues at \$468,478, not \$470,003. West Carroll provided no explanation for this discrepancy.

Staff has reviewed West Carroll's billing analysis and determined that it is appropriate and should be used to adjust test-year water sales to a billed basis. Staff recommends test-year water sales be decreased by \$3,011 to match sales reported for the test-year to the results of the billing analysis.

(B) Other Water Revenues. Test-year Other Operating Revenues was reported at \$18,510. This revenue includes late payment penalties of \$14,937 and revenues from miscellaneous charges of \$3,573. The miscellaneous charge revenue was derived from nonrecurring charges that were in effect during the test year. Effective April 1, 2012, the following changes were made to those nonrecurring charges.

	<u>Old</u>	<u>New</u>	<u>Percent Change</u>
Connection/Turn On	\$25	\$40	60%
Field Collection	15	40	167
Disconnect/Reconnect	15	40	220
Returned Check	5	25	400
Service Call	0	40	
After Hours Service Call	0	80	
Meter Test	0	50	
Meter Relocation	0	Actual Cost	
Equipment Damage	N/A	Actual Cost	

⁶ App. Attach. D.

⁷ The test period stated on the billing analysis is the 12 months ending January 31, 2012. This is a reference to the billing periods shown in the analysis. The usages shown in the analysis are for the calendar year ended December 31, 2011, the test period used in West Carroll's application.

West Carroll determined that the new miscellaneous charges will result in annual revenues that total \$7,972. It calculated this amount by adding actual revenues of \$3,917 that were recognized during the first seven months of 2012 to the anticipated revenue of \$4,055 to be earned during the remaining five months of 2012.⁸ This results in a \$4,399 increase to test-year revenues.

Staff agrees that the new fees will result in additional revenues that should be accounted for in pro forma operations and that the amount calculated by West Carroll fairly represents, in all material respects, a reasonable estimate of the additional revenues. Staff recommends test-year revenues be increased by \$4,399, as determined by West Carroll.

(C) Purchased Water and Purchased Power, Water Loss. Pursuant to 807 KAR 5:066, Section 6(3), a water utility's unaccounted-for water loss for ratemaking purposes may not exceed 15 percent of the total water produced and purchased. West Carroll purchases its total water requirements. Its water loss for the test year was 32 percent of its total water purchases, exceeding the allowable limit by 17 percent. West Carroll decreased Purchased Water expense by \$22,816 and decreased Purchased Power expense by \$2,127 to remove the cost of purchasing and pumping the excess water loss during the test year. Staff agrees with these adjustments and recommends they be accepted.

(D) Contractual Services. West Carroll reported test-year Contractual Services of \$203,376. Included in this amount is \$188,591 paid to Carrollton Utilities for

⁸ The anticipated revenues were determined using the average of the actual monthly revenues for May, June, and July of 2012 (\$811, Average Monthly Revenue x 5 Months = \$4,055).

contracted operating and management services. West Carroll has no employees. It is operated and managed by Carrollton Utilities pursuant to the Operational Agreement (“Agreement”) dated July 1, 2002. The Agreement was last amended on May 24, 2012. The amendment became effective on July 1, 2012, and increases the annual fee to \$200,402.

West Carroll proposed to increase to the test-year expense by \$8,893 to recover the actual expense to be incurred during 2012. Staff recommends the test-year amount be increased by \$11,811 (\$200,402 - \$188,591) to reflect the full effect of the annual fee increase.

Contractual Services also includes \$9,425 for a major repair to a water main. This repair is a nonrecurring expense that should be capitalized as a regulatory asset and amortized over the remaining life of the repaired main. The remaining life was determined to be 28 years.⁹ Amortization of the repair over 28 years requires a decrease to test-year expenses of \$9,088.¹⁰

Test-year audit fees were reported at \$5,045. These fees increased by \$658 to \$5,703 in the following year. West Carroll proposed to increase the test-year expense accordingly. Staff agrees and recommends this adjustment be approved.

⁹ West Carroll estimated that this main was first placed into service in 1975. Assuming full depreciation was taken in that year, the main had been depreciated 37 years at test-year end. Its remaining life was estimated to be 28 years by subtracting its age from its 65-year estimated service life.

¹⁰ Test Year	\$9,425
Divide by: 28 Years	<u>28</u>
Annual Amortization Expense	337
Less: Test Year	<u>(9,425)</u>
Decrease	<u>\$(9,088)</u>

The total adjustment to test-year Contractual Services recommended by Staff is a net increase of \$3,381.¹¹

(E) Bad Debt Expense. During the test year, West Carroll reported \$4,176 for bad debt expense. It increased this amount by \$1,203 to account for customer accounts written off in 2012. This adjustment is not appropriate and should be denied.

Bad debt expense represents an allowance for uncollectable revenues. The amount expensed in any accounting period is derived from, and is entirely dependent upon, the amount of the revenue reported for the same period. West Carroll's adjustment improperly matches the 2012 expenses with 2011 revenues.

Additionally, West Carroll provided no evidence showing that the test-year expense is not sufficient to allow for uncollectible revenues that were billed during the test-year. There is evidence that the allowance is sufficient. Generally, Staff has found that a utility with effective customer deposit and collection policies will realize bad debts that range from .5 percent to 1 percent of retail sales to residential and small commercial customers. West Carroll's test-year percentage is within this range at .89 percent.¹² The level of the test-year expense appears to be reasonable when compared to test-year revenues and requires no adjustment.

¹¹ Agreement	\$11,811
Amortization of Water Main Repair	(9,088)
Audit Fees	<u>658</u>
Total	<u>\$3,381</u>
¹² Bad Debt Expense	\$4,176
Divide by: Test Year Water Sales Revenue	<u>471,489</u>
Percentage of Bad Debts to Sales	<u>.89%</u>

(F) Miscellaneous. West Carroll reported a \$53 expense that was not necessary for the delivery of potable water and was, therefore, outside its statutory purpose.

“As a creature of statute, a water district created pursuant to KRS Chapter 74 may expend funds only in keeping with its statutory purpose, or express statutory authorization.”¹³ “To expend any part of the funds arising from fees for water services for any purpose other than those for which the district was created is to contravene the provisions contained in sections 171 and 180, State Constitution, and to do so, is illegal.”¹⁴ Accordingly, Staff recommends the expense be removed for ratemaking purposes.

(G) Depreciation Expense. West Carroll reported \$158,697 for test-year depreciation expense. It proposed to reduce this amount by \$78,053 restating the pro forma expense to \$80,644.¹⁵ This adjustment was made for ratemaking purposes to account for changes to the depreciable lives assigned to certain assets.

Staff reviewed the lives that West Carroll used. A summary of this review is found at Attachment B of this report. Staff agrees with the lives assigned by West Carroll except for the 20-year life assigned to telemetry equipment. Staff recommends a life of 10 years be assigned to this asset group.

Staff accepts West Carroll's adjustment to depreciation expense except for the amount calculated for telemetry equipment. Application of a 10-year life to this asset

¹³ OAG 92-43 (Mar. 19, 1992).

¹⁴ 1956 OAG 36,219 (Oct. 19, 1956).

¹⁵ App. Attach. E.

requires a \$323 increase to the pro forma expense calculated by West Carroll.¹⁶ Staff has increased pro forma depreciation expense to \$80,967.¹⁷

Staff also recommends that that West Carroll be required to use a 10-year service life for this asset group for accounting purposes in all future reporting periods. These lives better represent the life expectancy of West Carroll's assets than the current lives and will better match expenses to the revenues generated by the water-service rates approved by the Commission in this proceeding. This action will minimize the erosion of equity. Staff further recommends that adjustment to accumulated depreciation or retained earnings should be made to account for the retroactive effect of this change in accounting estimate.

(H) Gain on Disposal of Asset. During the test-year, West Carroll recognized a \$1,096 gain on the sale of a trailer used to haul equipment. Being an asset of a depreciable class, the Uniform Systems of Accounts ("USoA") requires that any gain or loss realized from its disposition be accounted for using the accumulated depreciation account. Through this accounting treatment, the depreciable basis of the replacement asset is adjusted to include the amount of the gain or loss recognized on the disposition

¹⁶ Depreciable Basis of Telemetry Equipment	\$6,471
Divide by: 10 Years	<u>10</u>
Annual Depreciation Expense	647
Less: Amount included in Pro Forma Expense Calculated by West Carroll	<u>(324)</u>
Increase	<u>\$323</u>
¹⁷ Pro forma Expense Requested by West Carroll	\$80,644
Plus: Additional Expense Recommended by Staff	<u>323</u>
Pro forma Expense Recommended by Staff	<u>\$80,967</u>

of the asset replaced. The gain or loss is then recognized as a component of depreciation expense recorded on the replacement asset in future periods.

In this case, there is no replacement asset or any other depreciable assets remaining in the plant account group from which the trailer was retired. Absent any assets to which the gain can be attached and recognized in future periods, Staff decreased the test-year amount by \$731¹⁸ to amortize the gain over a three year period, the anticipated life of the rates to be approved by the Commission in this case.

Revenue Requirement and Required Revenue Increase

West Carroll applied the DSC method to calculate its revenue requirement. The Commission has historically accepted this method for calculating the revenue requirements of water districts and water associations. Staff determined West Carroll's revenue requirement to be \$543,906 using this method. It requires a revenue increase of \$50,642. Staff's calculations are shown below.

¹⁸ Test Year	\$9,425
Divide by: 3 Years	<u>3</u>
Annual Amortization Expense	3,142
Less: Test Year	<u>(9,425)</u>
Decrease	<u>\$(6,283)</u>

Pro Forma Operating Expenses	\$ 461,388
Debt Service Requirement	<u>82,518</u>
Total Revenue Requirement	543,906
Less: Other Operating Revenues	(22,909)
Interest Income	(1,512)
Gain on Disposal of Asset	<u>(365)</u>
Revenue Required from Rates	519,120
Less: Pro Forma Present Rate Revenue	<u>(468,478)</u>
Required Revenue Increase	<u>\$ 50,642</u>
Percentage Increase	<u>10.81%</u>

To calculate the debt service requirement, West Carroll determined that its five-year average debt principal and interest payments on all long-term debts for the years 2012 through 2016 is \$72,386. This amount includes payments to RD on Water System Revenue Bonds Series 1975, Series 1981, Series 1994, and Series 2005. This also includes a payment to the city of Carrollton that is expected to begin in 2015 pursuant to an Interlocal Agreement.¹⁹ Following the Commission's DSC method, West Carroll added 20 percent of the average payment, \$14,477, to determine its total debt service requirement to be \$86,863.

West Carroll's calculations were not provided in the Application. Staff attempted to duplicate West Carroll's calculations using the RD bond amortization schedules provided in the application²⁰ and the annual payment to be required by the Interlocal

¹⁹ See Case No. 2012-00386, *Application of West Carroll Water District for an Order Authorizing the District Securities Pursuant to KRS 278.300* (Ky. PSC. Nov. 16, 2012), authorizing West Carroll to enter the Interlocal Agreement.

²⁰ App. Attach. H.

Agreement.²¹ Using this information, West Carroll's calculation appears as shown below. There are no material differences in the result of this calculation and the amount requested by West Carroll.

Year	Principal and Interest Payments					Total
	RD Bonds				Interlocal Agreement	
	1975	1981	1994	2005		
2012	\$ 20,375	\$ 6,525	\$ 21,680	\$ 19,726		\$ 68,306
2013	20,500	6,813	21,809	19,514		68,635
2014	21,550	6,588	21,915	19,301		69,354
2015	21,525	6,850	21,510	19,089	\$ 18,218	87,192
2016		6,600	22,083	19,855	18,218	66,756
Total	\$ 83,950	\$ 33,375	\$ 108,996	\$ 97,485	\$ 36,436	\$ 360,243
Average	\$ 16,790	\$ 6,675	\$ 21,799	\$ 19,497	\$ 7,287	72,049
Plus: 20 Percent						14,410
Total Debt Service Requirement						<u>\$ 86,458</u>

Staff calculated West Carroll's debt service requirement to be \$82,526 using the three-year average debt payments for years 2012 to 2014. Staff's calculation is shown below.


²¹ Case No. 2012-00386, App. Attach. B.

Year	Principal and Interest Payments				Interlocal Agreement	Total
	RD Bonds					
	1975	1981	1994	2005		
2012	\$ 20,375	\$ 6,525	\$ 21,680	\$ 19,726		\$ 68,306
2013	20,500	6,813	21,809	19,514		68,635
2014	21,550	6,588	21,915	19,301		69,354
Total	\$ 62,425	\$ 19,925	\$ 65,404	\$ 58,541		\$ 206,295
Average	\$ 20,808	\$ 6,642	\$ 21,801	\$ 19,514		\$ 68,765
Plus: 20 Percent						13,753
Total Debt Service Requirement						\$ 82,518

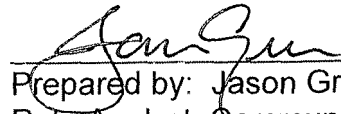
The three-year average properly excludes any payments to be made pursuant to the Interlocal Agreement. The Interlocal Agreement was executed to partner West Carroll with the city of Carrollton in the construction of a water system improvement project. A portion of these water facilities will be owned and operated by West Carroll. West Carroll anticipates adding up to 18 additional customers through these facilities.²² After the facilities are operational, changes will occur to West Carroll's debt service payments and to its revenues and expenses. In its application, West Carroll proposed adjustments to account for the changes to the debt service requirements only. It did not propose adjustments to account for the changes that will occur to revenues and expenses. It is not appropriate to account for the change in only one component of the revenue requirement affected by the Interlocal Agreement. Absent adjustments to account for all changes, no adjustment should be made. Use of the three-year average removes all effects of the Interlocal Agreement.

²² Case No. 2012-00386, Order of Nov. 16, 2012, at 2.

Signatures



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ATTACHMENT A
STAFF REPORT, CASE NO. 2012-00433
RATES CALCULATED BY STAFF

Monthly Rates

First	2,000 gallons	24.98 Minimum Bill
Next	3,000 gallons	8.71 per 1,000 gallons
Next	5,000 gallons	7.85 per 1,000 gallons
Next	10,000 gallons	6.98 per 1,000 gallons
All Over	20,000 gallons	6.15 per 1,000 gallons

ATTACHMENT B
STAFF REPORT, CASE NO. 2012-00433
ENGINEERING DIVISION'S
RECOMMENDED AVERAGE SERVICE LIVES

Historically, the Commission has relied on the National Association of Regulatory Utility Commissioners Study of Depreciation Practices for Small Water Utilities ("NARUC Study"), dated August 15, 1979, to evaluate the reasonableness of a utility's depreciation practices. This study outlines expected service life ranges for various asset groups designed, installed, and maintained in accordance with good water works practices. Typically, an adjustment is made when the Commission finds that a utility is proposing to use a service life that falls outside of this range while service lives falling within these ranges are generally accepted.

In the following table, Engineering staff has identified the account classifications for which the utility's proposed service life is not consistent with that contained in the NARUC Study. The table shows the utility's current, proposed, and Engineering staff's recommendation for the estimated service lives based on a review of information contained in the record of this case.

Asset Classification	Current	Proposed	Staff's Recommendation	NARUC Study
Communication Equipment	10	20	10	10

Absent any specific and verifiable evidence supporting an alternative service life, Engineering staff recommends using the service life identified above which is within the range found reasonable in the NARUC Study.

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