

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ALTERNATIVE RATE ADJUSTMENT)
FILING OF KIRKSVILLE WATER) CASE NO. 2015-00097
ASSOCIATION, INC.)

NOTICE OF FILING OF COMMISSION STAFF REPORT

Notice is hereby given that, in accordance with the Commission's Order of July 27, 2015, the attached report containing the findings of Commission Staff ("Staff") regarding the Applicant's proposed rate adjustment has been filed in the record of the above-styled proceeding. Pursuant to paragraphs 2 and 5 of the Commission's July 27, 2015 Order, Kirksville Water Association, Inc. is required to file written comments regarding the findings of Staff no later than September 7, 2015.



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

DATED **AUG 24 2015**

cc: Parties of Record

STAFF REPORT
ON
KIRKSVILLE WATER ASSOCIATION, INC.
CASE NO. 2015-00097

Kirksville Water Association, Inc. ("Kirksville") provides water service to approximately 1,789 customers residing in the Kentucky counties of Garrard and Madison.¹ On March 30, 2015, Kirksville tendered an application to the Commission pursuant to 807 KAR 5:076 requesting to adjust its water service rates based on the test-year operations ended December 31, 2014. The application was considered filed on April 27, 2015, when all filing deficiencies were cured.

The requested rates would increase the monthly cost of 5,000 gallons of water purchased through a 5/8-inch x 3/4-inch meter from \$42.74 to \$48.63, an increase of \$5.89, or 13.8 percent. Kirksville stated that these rates would increase its annual revenues by \$110,211, or 13.8 percent.

Staff performed a limited financial review of Kirksville's test-year operations to determine the reasonableness of the requested water service rates. 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 or immaterial discrepancies were not pursued and were not addressed.

¹ *Annual Report of Kirksville Water Association, Inc. to the Public Service Commission for the Calendar Year Ended December 31, 2014 ("2014 Annual Report")* at 5 and 27.

Staff's findings are summarized in this report. Jack Scott Lawless reviewed the calculation of Kirksville's Overall Revenue Requirement. Sam Reid reviewed revenues and rate design.

Summary of Findings

1. Overall Revenue Requirement and Required Revenue Increase. Staff applied the Debt Service Coverage ("DSC") Method, as generally accepted by the Commission, to determine Kirksville's revenue requirement. Using this method, Staff found that Kirksville can justify a total Overall Revenue Requirement of \$934,902 and that a water sales revenue increase of \$79,035, or 9.58 percent, above pro forma present rate water revenues is necessary to generate the Overall Revenue Requirement.

2. Water Service Rates. Kirksville proposes an across-the-board increase in general water service rates of approximately 13.8 percent. The Commission has previously found that an across-the-board percentage increase is an appropriate and equitable method to increase rates in the absence of a cost-of-service study, and Staff has followed that method in this instance. The rates set forth in Attachment A to this report will produce sufficient revenues from water sales to meet the Overall Revenue Requirement of \$934,902 as calculated by Staff.

3. Depreciation. As discussed in detail in Attachment B, Staff found that Kirksville should change the depreciable lives assigned to certain water assets for ratemaking and accounting purposes. Staff further finds that no adjustment to accumulated depreciation or retained earnings should be made to account for the effect of this recommended change in accounting estimate.

Pro Forma Operating Statement

Kirksville's Pro Forma Operating Statement for the test year ended December 31, 2014, as determined by Staff, appears below.

	Test Year	Adjustments Ref.	Pro Forma
Operating Revenues			
Water Sales	\$ 798,562	\$ 26,131 (A)	\$824,693
Other Operating Revenue	30,198		30,198
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Total Operating Revenue	828,760	26,131	854,891
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Operating Expenses			
Operation and Maintenance Expenses			
Salaries and Wages - Employees	116,516		116,516
Salaries and Wages - Directors	18,600		18,600
Purchased Water	361,817	8,924 (B)	
		(4,060) (C)	366,682
Purchased Power	15,087	(165) (C)	14,922
Materials and Supplies	51,203		51,203
Contractual Services - Engineering	10,599		10,599
Contractual Services - Accounting	11,850		11,850
Contractual Services - Management Fees	53,051		53,051
Insurance - General Liability	15,673		15,673
Insurance – Worker's Compensation	6,826		6,826
Advertising Expense	80		80
Miscellaneous Expenses	36,745		36,745
	<hr/>		
Total Operation and Maintenance Expenses	698,047	4,700	702,747
Depreciation Expense	154,176	(21,882) (D)	132,294
Taxes Other Than Income	7,625		7,625
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Total Operating Expenses	859,848	(17,182)	842,666
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Net Operating Income	(31,088)	43,313	12,225
Plus: Interest Income	976		976
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Income Available to Service Debt	(30,112)	43,313	13,201
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(A) Billing Analysis Adjustment. In its application, Kirksville provided a billing analysis that stated total test-year gallons sold at 93,139,460. During its review, Staff determined that this amount did not account for leak adjustments awarded by Kirksville to customers during the test year that totaled 848,960 gallons. Subtracting the leak adjustments from the billing analysis reduced test-year gallons sold at the general service rates to 92,290,500. Applying Kirksville's current retail water service rates, which reflect Kirksville's recent purchased water adjustment increase,² to the adjusted test-year sales volume, Staff increased Kirksville's test-year revenue from Water Sales of \$798,562 by \$26,131 to \$824,693.

(B) Increase to Wholesale Water Costs. During the test year, Kirksville purchased 149,022 hundred cubic feet of wholesale water from Richmond Utilities. On May 15, 2015, Richmond Utilities notified Kirksville and the Kentucky Public Service Commission that it will increase the volumetric rate charged to Kirksville by 1.6 percent to \$2.35332 per hundred cubic feet for purchases made on and after July 1, 2015. As calculated below, Staff determined that this wholesale water rate increase will increase Kirksville's test-year purchased water costs by \$8,924. Accordingly, Staff increased Kirksville's test-year purchased water expense by \$8,924.

² Kirksville's current rates were approved by the Commission in Case No. 2015-00225, *Purchased Water Adjustment Filing of Kirksville Water Association* (Ky. PSC Aug. 3, 2015).

Test-Year Purchases, Hundred Cubic Feet	149,022
Times: Rate Effective July 1, per 100 Cubic Feet	<u>\$ 2.35332</u>
Pro Forma Volumetric Purchased Water Charge	350,696
Plus: Meter Charges, Annual	76
Kentucky River Withdrawal Fee	<u>19,969</u>
Pro forma Purchased Water	370,741
Less: Test Year	<u>(361,817)</u>
Increase	<u>\$ 8,924</u>

(C) Remove Cost of Excess Water Loss. Using information provided by Kirksville, Staff calculated Kirksville's test-year water loss to be 16.09 percent, or 1.09 percent above the 15 percent allowed for ratemaking purposes by 807 KAR 5:066, Section 6(3).³ As calculated below, Staff removed from pro forma operations the cost incurred by Kirksville to purchase and pump water loss that is above the allowable limit.

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Test-Year Purchases	111,468,456
Less: Test-Year Water Sales	(93,139,460)
System Flushing	(270,750)
Fire Department Use	<u>(117,400)</u>
Water Loss	17,940,846
Divide by: Test-Year Purchases	<u>111,468,456</u>
Water Loss Percentage	16.09%
Less: Allowable Percentage	<u>-15.00%</u>
Excess Water Loss	<u>1.09%</u>

	Test Year	Increase Due to Wholesale Rate Change	Adjusted Balance	Times: Excess Water Loss Percentage	Decrease
Purchased Water	\$361,817	\$ 8,924	\$370,741	1.09%	\$ (4,060)
Purchased Power for Pumping	15,087		15,087	1.09%	(165)

(D) Depreciation. Kirksville reported \$154,176 for test-year depreciation expense. Staff reviewed all the lives assigned to Kirksville's assets. A summary of this review is found at Attachment B of this report. Based on this review, Staff determined that Kirksville's test-year depreciation should be reduced by \$21,882, as calculated below.

	Original Cost	Depreciable Life Assigned By Staff	Pro Forma Depreciation Expense	Less: Test-Year Depreciation Expense	Adjustment
Transmission and Distribution Mains	\$ 486,470	50	\$ 9,729	\$ (12,162)	\$ (2,432)
Meter Sets	573,920	45	12,754	(23,248)	(10,494)
Office Equipment, Telemetry	37,093	10	3,709	(1,855)	1,855
Phase V	482,240	50	9,645	(19,290)	(9,645)
Pumping Equipment:					
Item 24	57,575	35	1,645	(1,919)	(274)
Items 38, 45, and 46	272,003	50	5,440	(8,700)	(3,260)
Item 50	24,054	20	1,203	(802)	401
Telemetry	32,818	10	3,282	(1,313)	1,969
Decrease to Test-Year Depreciation Expense					<u>\$ (21,882)</u>

Overall Revenue Requirement and Required Revenue Increase

Kirksville and Staff calculated Kirksville's overall revenue requirement and required revenue increase using the DSC Method that is generally accepted by the Commission. 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;⁴ 3) the average annual principal and interest payments on all long-term debts, and 4) working capital that is in addition to depreciation expense. A comparison of Kirksville's and Staff's calculation of Kirksville's Overall Revenue Requirement and Required Revenue Increase is shown below.

⁴ 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 to be used 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).

	Kirksville	Staff
Pro Forma Operating Expenses	\$ 850,450	\$ 842,666
Plus: Average Annual Debt Principal and Interest Payments	73,873	76,863
Additional Working Capital	14,775	15,373
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Overall Revenue Requirement	939,098	934,902
Less: Other Revenue	(30,325)	(30,198)
Interest Income		(976)
	<hr/>	<hr/>
Revenue Required from Rates	908,773	903,728
Less: Pro Forma Present Rate Revenue	(798,562)	(824,693)
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Revenue Increase Necessary to Meet Overall Requirement	\$ 110,211	\$ 79,035
Percentage Increase	13.80%	9.58%
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1. Average Principal and Interest Payments. Kirksville currently has four loans payable to the United States Department of Agriculture Rural Development ("RD") and one loan payable to the Kentucky Rural Water Financing Corporation ("KRWFC"). In its application, Kirksville requested recovery of \$73,873 for principal and interest payments on these loans, but did not provide the calculation of this amount or explain how the amount was determined.

To calculate Kirksville's revenue requirement, Staff included the five-year average debt principal and interest payments to be made by Kirksville in the years 2015 through 2019 to match the average debt payment with the anticipated five-year life of the water service rates that will be approved by the Commission in this proceeding. Staff's calculation of the five-year average is shown below.

	KRWFC	RD Loan No.				Total Annual Payment
		91-03	91-05	91-10	91-11	
2015	\$ 68,660	\$ 5,181	\$ 5,669	\$3,812	\$ 5,445	\$ 88,767
2016	52,610	5,181	5,669	3,812	5,445	72,717
2017	51,770	5,181	5,669	3,812	5,445	71,877
2018	55,860	5,181	5,669	3,812	5,445	75,967
2019	54,880	5,181	5,669	3,812	5,445	<u>74,987</u>
Five-Year Total						<u>\$ 384,315</u>
Five-Year Average						<u>\$ 76,863</u>

2. Additional Working Capital. The DSC method, as historically applied by the Commission, includes an allowance for additional working capital that is in addition to the amount provided through recovery of Depreciation Expense. The additional working capital is set equal to the minimum net revenues required by Kirksville's lenders that are above its average annual debt payments. RD requires a DSC ratio of 120 percent of the utility's average annual debt payments on RD's loans as well as all other debts that are on par with its loans, such as Kirksville's KRWFC loan. As shown below,

ATTACHMENT A
STAFF REPORT, CASE NO. 2015-00097

RATES CALCULATED BY STAFF

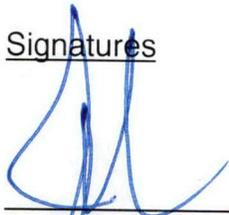
Monthly Rates

First	2,000 gallons	\$ 19.49	Minimum bill
Next	3,000 gallons	9.39	per 1,000 Gallons
Next	5,000 gallons	7.92	per 1,000 Gallons
All over	10,000 gallons	6.70	per 1,000 Gallons

Staff calculated Kirksville's allowance for additional working capital to be \$15,373. Staff included this amount in the calculation of Kirksville's revenue requirement.⁵

Average Annual Debt Payment	\$ 76,863
Times: 120 Percent	<u>120%</u>
Required Net Revenues	92,236
Less: Average Annual Debt Payment	<u>(76,863)</u>
Allowance for Additional Working Capital	<u>\$ 15,373</u>

Signatures



Prepared by: Jack Scott Lawless, CPA
Branch Manager, Water and Sewer
Revenue Requirements Branch
Division of Financial Analysis



Prepared by: Sam Reid
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Division of Financial Analysis

⁵ RD and KRWFC require that Kirksville assess rates for water service that produce net revenues that are equal to at least 120 percent of the average annual principal and interest payments. The DSC ratio measures an entity's ability to pay its cash-related operating expenses and to pay debt principal and interest. RD and KRWFC calculate the ratio by dividing net revenues by the entity's average annual debt principal and interest payments. Net revenues are equal to total gross revenues less cash-related expenses. Depreciation expense, a noncash operating expense, is excluded from the determination of net revenues. As shown below, the required DSC Ratio is met with and without including the additional allowance for working capital in Kirksville's Overall Revenue Requirement.

Overall Revenue Requirement	\$ 934,902	\$ 919,529
Less: Operation and Maintenance Expenses	(702,747)	(702,747)
Taxes Other Than Income	<u>(7,625)</u>	<u>(7,625)</u>
Net Revenues	224,530	209,157
Divide by: Average Annual Debt Payments	<u>76,863</u>	<u>76,863</u>
DSC Ratio	<u>292%</u>	<u>272%</u>

ATTACHMENT B
 STAFF REPORT, CASE NO. 2015-00097
 KIRKSVILLE WATER ASSOCIATION
 ENGINEERING DIVISION'S
 ANALYSIS OF ASSET SERVICE LIVES

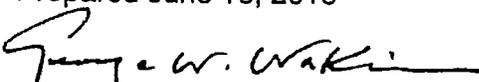
Historically, the Commission has relied on the National Association of Regulatory Utility Commissioners Study of Depreciation Practices for Small Water Utilities ("NARUC Study"), dated August 15, 1979, to evaluate the reasonableness of a utility's depreciation practices. This study outlines expected 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 current service lives are not consistent with the service lives contained in the NARUC Study. The table shows the utility's current and Engineering Staff's recommended reasonable and appropriate service lives based on a review of information contained in the record of this case.

Asset Classification	Current	Staff Recommended	NARUC Study
DISTRIB. & TRANS. MAINS:102, 103, 104,105, 108, 109, 113, and 114	40-50	50	50-75
METER SETS	7-25	45	40-50
OFFICE EQUIPMENT: 87, EIC SYSTEMS TELEMENTARY	20	10	10
PHASE V	25	50	50-75
PUMPING EQUIPMENT: 24, BOOSTER PUMP STATION	30	35	35-40
PUMPING EQUIPMENT:38, 45, and 46	30-35	50	50-75
PUMPING EQUIPMENT: 50, PUMPING EQUIPMENT	30	20	20
TELEMETRY	25	10	10

Absent any specific and verifiable evidence supporting alternative service lives, Engineering Staff finds that service lives based on the NARUC Study, as shown in the above table, should be considered reasonable and appropriate.

Prepared June 16, 2015


 George W. Wakim, P.E.
 Manager, Water and Sewer Branch

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