

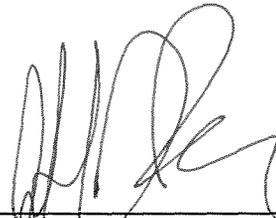
COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ALTERNATIVE RATE ADJUSTMENT FILING OF) CASE NO.
RATTLESNAKE RIDGE WATER DISTRICT) 2013-00338

NOTICE OF FILING OF COMMISSION STAFF REPORT

Notice is hereby given that, in accordance with the Commission's Order of October 22, 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 DEC 16 2013

cc: Parties of Record

STAFF REPORT
ON
RATTLESNAKE RIDGE WATER DISTRICT
CASE NO. 2013-00338

Rattlesnake Ridge Water District ("Rattlesnake Ridge") provides water service to approximately 4,015 customers residing in the Kentucky counties of Carter, Elliot, Lawrence, Lewis, and Morgan.¹ On October 14, 2013, it filed an application with the Commission requesting to adjust its rates for water service based upon adjusted test-year operations ending December 31, 2012. The adjusted rates will increase a monthly bill for 5,000 gallons of water provided through a 5/8- x 3/4-inch meter from \$51.70 to \$66.69, an increase of \$14.99, or 29.02 percent. Rattlesnake Ridge states that the requested rates will generate \$587,004 in additional annual revenue. The financial exhibits presented in its application that support the requested revenue increase are shown below in condensed form.

Pro Forma Operating Expenses	2,110,884
Plus: Average Annual Debt Principal and Interest Payments	<u>498,984</u>
Overall Revenue Requirement	2,609,868
Less: Interest Income	<u>(66)</u>
Revenue Required from Rates	2,609,802
Less: Revenue from Sales at Present Rates	<u>(2,022,798)</u>
Required Revenue Increase	<u>587,004</u>
Percentage	<u>29.02%</u>

¹ Annual Report of Rattlesnake Ridge Water District to the Public Service Commission Year Ended December 31, 2012 ("Annual Report") at 5 and 27.

To determine the reasonableness of the rates requested by Rattlesnake Ridge, Commission Staff ("Staff") performed a limited financial review of Rattlesnake Ridge's test-year operations. The scope of the 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.

Staff's findings and recommendations are summarized in this report. David Foster reviewed the calculation of revenue requirements. Jason Green reviewed the billing analysis, reported revenues, and the method used to calculate the proposed rates.

Summary of Findings

1) Overall Revenue Requirement and Required Revenue Increase. As demonstrated and discussed in this report, Staff determined that a revenue increase of \$589,043, or 29.78 percent, is warranted. The amount calculated by Staff is not materially different from the increase requested by Rattlesnake Ridge. Staff finds that the Commission should approve the rates requested by Rattlesnake Ridge as shown in Attachment A to this report.

2) Violation of Rural Development Bond Resolution. Article 4 of Rattlesnake Ridge's most recent Rural Development ("RD") bond resolution dated December 6, 2010, ("Current Bond Resolution") requires that Rattlesnake Ridge maintain a Revenue Fund, a Sinking Fund, a Debt Reserve Fund, and an Operation and Maintenance Fund. The Revenue Fund is to be deposited with all revenues of the system. These deposits

are to be transferred to the other funds, either on or before the 20th day of each month, to be used in accordance with the Current Bond Resolution and the resolutions of all prior bonds.

Monthly transfers to the Sinking Fund must be equal to one-sixth (1/6) of the next succeeding six-month interest payment on all bonds plus one-twelfth (1/12) of the next succeeding annual principal payment on all bonds. All bond payments are to be made from the Sinking Fund.

Monthly transfers to the Debt Reserve Fund in the amount of \$2,600 are required until the account balance reaches the cumulative total amount required by the resolutions of all bonds. The required balance as of December 31, 2012, was \$187,770. At that time, Rattlesnake Ridge deposits totaled \$16,832.² Funds deposited into this account may be used to pay the cost of extraordinary repair, renewal, or replacement of the existing system or to pay the cost of system improvements that either enhance revenues or improve service. They may also be used to pay bond principal and interest payments when deposits in the Sinking Fund are not adequate. Upon full retirement of the principal balance of any bond, its deposits to the Debt Reserve Fund may be removed from the fund to be used for any purpose at the discretion of Rattlesnake Ridge.

Monthly transfers to the operation and maintenance fund are to be made in amounts that are sufficient to pay expenses incurred to operate and maintain the water system.

² Rattlesnake Ridge 2012 Audit Report at 12. In the report, this fund is referred to as the Depreciation Fund as it is generally labeled by lenders in most bond resolutions, including Rattlesnake Ridge's earlier resolutions.

Rattlesnake Ridge did not make timely deposits to its Sinking Fund or its Debt Reserve Fund during the test year. In addition, its Debt Reserve Fund is under funded by a material amount. It is Staff's opinion that these violations were caused primarily due to lack of adequate cash flow. After the Commission issues its final order in this proceeding, Rattlesnake Ridge will have sufficient cash flow to make timely deposits to these funds. Rattlesnake Ridge should make the required deposits in all future accounting periods.

Rattlesnake Ridge does not maintain an Operation and Maintenance Fund. All expenses incurred to operate and maintain the water system are paid from the Revenue Fund. Rattlesnake Ridge should establish and maintain an Operation and Maintenance Fund as required by the RD bond resolution. This would strengthen internal controls for cash.

3) Property Taxes. During the test year, Rattlesnake Ridge paid \$369 to the Carter County Sheriff for property taxes that were assessed on an office building, a pump station, and a water tower. Rattlesnake Ridge is exempt from paying property taxes.³ The test-year payments, which were reported as Taxes Other Than Income, were removed by Staff to calculate Rattlesnake Ridge's pro forma operations. Rattlesnake Ridge should contact the Carter County Sheriff to avoid future property tax assessments.

4) Depreciation Practices. In this report, Staff revised the depreciable lives assigned to many of Rattlesnake Ridge's assets for ratemaking purposes. The revised lives should be used for accounting purposes in all future reporting periods, as they better match the life expectancy of Rattlesnake Ridge's assets and will better match

³ Ky. Constitution § 170. See also *City of Harlan v. Blair*, 251 S.W. 51, 64 S.W.2d 434 (1933).

expenses to the revenues generated by the water service rates approved in this proceeding. This action will minimize the erosion of equity. No adjustment should be made to accumulated depreciation or retained earnings to account for the retroactive effect of this change in accounting estimate.

Pro Forma Operating Statement

Staff prepared a Pro Forma Operating Statement detailing adjustments made to Rattlesnake Ridge's test-year operations. Staff's statement is shown below, followed by discussion of all adjustments requested by Rattlesnake Ridge and made by Staff.

	Test Year	Adjustments	Ref.	Pro Forma
Operating Revenues				
Sales of Water	\$ 2,022,800	\$ (56,160)	(A)	
		(2,302)	(B)	
		21,847	(C)	
		72,623	(D)	
		(53,598)	(E)	
		(45,349)	(F)	
		18,000	(G)	\$ 1,977,861
Other Operating Revenue	19,411	56,160	(A)	75,571
Total Operating Revenue	2,042,211	11,221		2,053,432
Operating Expenses				
Operation and Maintenance Expenses				
Salaries and Wages - Employees	565,995	(99,490)	(H)	466,505
Salaries and Wages - Officers	14,619			14,619
Employee Pension and Benefits	298,324	(52,017)	(I)	246,307
Purchased Water	4,169	(914)	(J)	3,255
Utilities Expense	249,211	(53,008)	(J)	196,203
Testing	23,506			23,506
Materials and Supplies:				
Chemicals	106,091	(23,254)	(J)	82,837
Materials	173,906	(18,119)	(K)	155,787
Contractual Services	17,910	6,900	(L)	24,810
Transportation Expenses	56,678			56,678
Insurance - Other	53,426			53,426
Advertising Expense	742			742
Total Operation and Maintenance Expenses	1,564,577	(239,903)		1,324,674
Depreciation Expense	806,209	(113,317)	(M)	692,892
Taxes Other Than Income	48,754	(2,302)	(B)	
		(9,646)	(N)	36,806
Total Operating Expenses	2,419,540	(365,168)		2,054,372
Net Operating Income	(377,329)	376,389		(940)
Interest and Dividend Income	66			66
Nonutility Income	18,460	(18,460)	(O)	
Income Available to Service Debt	\$ (358,803)	\$ 357,929		\$ (874)

(A) Late-Payment Penalties. Rattlesnake Ridge collected test-year late-payment penalties of \$56,160 that were improperly reported using account 461, Water Sales Revenue. Proper accounting requires that it be reclassified to account 470, Forfeited Discounts.

(B) Sales Tax. Rattlesnake Ridge collects and remits school taxes on behalf of the Commonwealth of Kentucky. Rattlesnake Ridge acts as a collecting agent for the taxing authorities. The taxes collected are not revenue to the utility. Likewise, the tax remittances are not an expense. Rattlesnake Ridge improperly reported sales taxes as revenue and as an expense. Staff removed these amounts from test-year operations.

(C) Allowance for Uncollectible Accounts. During the test year, Rattlesnake Ridge wrote off \$78,822 of aged customer accounts receivable. To record the entry, Rattlesnake Ridge properly credited Accounts Receivable but improperly debited Water Sales instead of Allowance for Uncollectible Accounts. This resulted in a \$78,822 understatement of unaudited revenues. Rattlesnake Ridge's auditor reversed \$56,975 of the accounting error during the audit process, leaving test-year revenues understated by \$21,847. Staff increased test-year revenues by this amount to fully correct the original error.

(D) Correction of Recording Error. During the test year, Rattlesnake Ridge made an error in its Accounts Receivable Subsidiary Ledger when recording cash received from a large commercial customer. Rattlesnake Ridge properly made a \$72,623 entry to the subsidiary ledger to correct the error; however, the correcting entry was mistakenly recorded as a reduction to test-year Water Sales in the general ledger. Staff increased test-year revenues by \$72,623 to remove the effects of this error.

(E) Unbilled Revenue. The Uniform System of Accounts (“USoA”) allows for the accrual of unbilled revenues. When unbilled revenues are accrued, expenses incurred to produce these revenues must also be accrued.⁴ During the test year, Rattlesnake Ridge accrued \$53,598 for unbilled revenues, but did not accrue the related expenses. This accounting treatment results in a mismatch of revenues and expenses and is in violation of the USoA. Staff removed unbilled revenues from test-year operations to properly match pro forma present rate revenues to pro forma present rate expenses. This adjustment restates pro forma present rate revenues to a billed basis, the basis historically applied by the Commission for ratemaking purposes.

(F) Posting Errors. As a part of Rattlesnake Ridge’s accounting cycle, the monthly sales subsidiary journals are posted to the Water Sales account shown in the General Ledger. During the test year, three posting errors occurred that resulted in a \$45,349 overstatement of Water Sales. Staff decreased test-year revenues by \$45,349 to remove the effects of these errors.

(G) Billing Analysis. In its Application, Rattlesnake Ridge provided a billing analysis that showed \$1,103,357 in revenue from water sales. Staff was able to obtain actual customer usage data from Rattlesnake Ridge for the test period in order to produce a more accurate billing analysis. Upon obtaining this usage data, as well as billing adjustments for water leaks and misread meters, Staff was able to calculate a normalized test period revenue of \$1,977,861, requiring an increase of \$18,000.

(H) Salaries and Wages-Employees. During the test year, Rattlesnake Ridge accrued \$571,551 for employee wages. It reported \$565,995, or 99.0279 percent, as wage expense, with the remaining \$5,556 capitalized as Utility Plant in Service. As

⁴ USoA for Class A/B Water Districts and Associations at 53.

shown below, Staff determined that the test-year expense should be decreased by \$99,490.

	2013 Wages		2012 Hours		Pro Forma Salaries
	Regular	Overtime	Regular	Overtime	
Employee 1	\$ 1,000.00				\$ 52,000
Employee 2	15.00	22.50	2080	81	33,016
Employee 3	860.00				44,720
Employee 4	18.96	28.44	2080	152	43,745
Employee 5	18.96	28.44	2080	228	45,921
Employee 6	19.96	29.94	2080	176	46,786
Employee 7	18.96	28.44	2080	141	43,433
Employee 8	20.44	30.66	2080	316	52,188
Employee 9	17.18	25.77	2080	146	39,493
Employee 10, Part Time	10.00	15.00	1040		10,400
Employee 11, Part Time	10.00	15.00	1040		10,400
Employee 12, Part Time	14.65	21.98	1761	111	28,227
Employee 13, Part Time	14.00	21.00	1454	19	<u>20,755</u>
Total Pro Forma Wages					471,084
Times: Test-Year Percentage Expensed					<u>99.03%</u>
Pro Forma Wages Expensed					466,505
Less: Test Year					<u>(565,995)</u>
Decrease					<u>\$ (99,490)</u>

Staff calculated pro forma wages by applying current pay rates to the test-year hours worked by all employees that were employed at the time of Staff's field work. There were many personnel changes that affected Staff's adjustment. First, during the test year, Rattlesnake Ridge employed 12 full-time and five part-time employees. Subsequent to the test year, three part-time and three full-time test-year employees were terminated as a result of layoffs, retirements, and resignations. Rattlesnake Ridge has no immediate plans to replace these employees. Their wages were not included in pro forma operations.

A fourth full-time office employee was replaced by two new part-time office employees and by an outside Certified Public Accountant ("CPA"). Staff removed the full-time employee and included the new part-time employees in its calculation of pro forma wages and included the CPA's fees in pro forma Contractual Services.

On September 5, 2013, Rattlesnake Ridge's Board of Commissioners authorized the hiring of a new general manager starting September 9, 2013. Pursuant to the original agreement, the general manager would serve as contract labor until January 1, 2014, when he would become an employee of Rattlesnake Ridge; however, he became an employee on December 1, 2013. Staff included the general manager's salary in pro forma operations at the level approved by the Board of Commissioners.

(I) Employee Pensions and Benefits. Rattlesnake Ridge provides uniforms, insurance, and retirement benefits to full-time employees, for which it reported \$299,006 during the test year. As shown below, Staff decreased the test-year amount by \$52,017.

Pro Forma Retirement	\$ 75,806
Pro Forma Insurance	165,924
Test-Year Uniforms	<u>6,995</u>
Total Pro Forma Employee Pensions and Benefits	248,725
Times: Test-Year Wage Expense Rate	<u>99.0279%</u>
Pro Forma Expense	246,307
Less: Test Year	<u>(298,324)</u>
Decrease	<u>\$ (52,017)</u>

Rattlesnake Ridge participates in the County Employee Retirement System, to which it contributes a percentage of each employee's wage to a retirement fund. By

applying the current contribution rate to pro forma full-time wages, Staff determined pro forma retirement contributions to be \$75,806.⁵

Rattlesnake Ridge provides health insurance benefits to all full-time employees. Staff determined pro forma health insurance costs to be \$165,924 by annualizing the most recent monthly premium paid on behalf of its nine full-time employees.⁶

(J) Purchased Water and Purchased Power, Water Loss. In its 2012 Annual Report, Rattlesnake Ridge calculated its test-year water loss to be 24.97 percent.⁷ In its calculation, Rattlesnake Ridge reports 430,935,000 gallons for total water produced and 52,361,000 gallons used at the water treatment plant. Staff understands that the amount stated in the annual report for “water produced” represents the quantity of treated water that was discharged from the treatment system into the distribution system. It does not include water used inside the treatment plant. Therefore, it is not appropriate to remove water used inside the plant from the “water produced” when

5

Pro Forma Full-Time Employee Wages	\$ 401,302
Times: Contribution Rate	<u>18.9%</u>
Pro Forma Retirement	<u>\$ 75,806</u>

6

Current Premium for Nine Full-Time Employee	13,827
Annualize	<u>12</u>
Pro Forma Insurance	<u>\$ 165,924</u>

⁷ Annual Report at 30.

calculating water loss. Correction of this error restates test-year water loss to 36.92 percent.⁸

Pursuant to 807 KAR 5:066, Section 6(3), the maximum allowable water loss for ratemaking purposes is 15 percent. To comply with the regulation, Staff removed the cost to purchase, pump, and treat water loss that is in excess of the allowable amount as shown in the table below.

	Test Year	Excess Water Loss Percentage	Decrease
Purchased Water	\$ 4,169	-21.92%	\$ (914)
Purchased Power for Pumping	241,833	-21.92%	(53,008)
Chemicals	106,091	-21.92%	(23,254)

(K) Materials and Supplies. Rattlesnake Ridge reported \$279,997 for test-year Materials and Supplies. Staff decreased this amount by \$18,119 as discussed below.

During the test year, Rattlesnake Ridge maintained a Materials and Supplies subsidiary account titled Service Charges and Penalties to which it reported \$18,066. All amounts charged to this account were either late-payment penalties paid by Rattlesnake Ridge for untimely payments to vendors or transaction fees incurred by Rattlesnake Ridge when accepting credit card payments from customers. Staff

8

Plant Usage	52,361,000
Divide By: Water Produced and Purchased	<u>433,675,000</u>
Understatement of Test-Year Water Loss	12.07%
Plus: Reported Water Loss	<u>24.85%</u>
Restated Water Loss	<u><u>36.92%</u></u>

eliminated the entire amount of this account. The late penalties were a result of poor cash management by Rattlesnake Ridge and should not be borne by its ratepayers. The credit card fees are no longer incurred. Subsequent to the test year, Rattlesnake Ridge contracted with The Neil Group, LLC (“Neil Group”) to process credit card transactions. Pursuant to the contract, the Neil Group pays all transaction fees.

In addition, it came to Staff’s attention that Rattlesnake Ridge reported a \$53 expense for flowers. As this expense was unrelated to the delivery of potable water and was outside the water district’s statutory purpose, Staff removed the amount from test-year operations.

The Attorney General has stated that a water district may only make expenditures that are consistent with its statutory purpose to furnish a water supply. “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.”⁹ “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. The officer making such illegal expenditure subjects himself to the obligation upon the demand of any citizen who pays fees for water services to either recover from the

⁹ OAG 92-43 (Mar. 19, 1992).

person to whom the illegal sum was donated or to reimburse the district for the amount of the illegal donation.”¹⁰

(L) Contractual Services – Accounting. As discussed in Staff’s adjustment to test-year Salaries and Wages – Employees expense, subsequent to the test-year Rattlesnake Ridge replaced a full-time office employee with two part-time employees and contracted services to be provided by an outside Certified Public Account. The contracted accounting fees are \$575 per month, or \$6,900 annually. Staff increased test-year expenses by \$6,900 to account for this change to Rattlesnake Ridge’s operations.

(M) Depreciation Expense. Rattlesnake Ridge reported \$806,209 for test-year depreciation expense. It proposed to reduce this amount by \$214,014 to account for a change to the depreciable life assigned to water mains from 40 years to 75 years. As explained below, Staff’s made two adjustments to test-year depreciation that results in a net decrease of \$113,317.

Change to Lives	\$	(284,701)
Water Treatment Plant Expansion		<u>171,384</u>
Decrease	\$	<u><u>(113,317)</u></u>

All lives assigned to asset groups by Rattlesnake Ridge were reviewed by the Commission’s Division of Engineering. A summary of their review is shown in Attachment B of this report. Using lives recommended in Attachment B, Staff determined that test-year depreciation expense should be decreased by \$284,701, as calculated below.

¹⁰ 1956 OAG 36,219.

Account Group	Depreciable Basis at December 31, 2012	Depreciable Life	Pro Forma Depreciation Expense	Less: Test Year	Adjustment
Pumps	\$ 1,253,819	20	\$ 62,691	\$(125,382)	\$ (62,691)
Transmission and Distribution Mains	18,344,070	75	244,588	(458,602)	(214,014)
Transportation Equipment	50,499	7	7,214	(10,100)	(2,886)
Excavator	42,588	12.5	3,407	(8,518)	(5,111)
Total			<u>\$ 317,900</u>	<u>\$(602,601)</u>	<u>\$(284,701)</u>

Staff increased test-year depreciation expense by \$171,384, as calculated below, to include depreciation on the water treatment expansion project that was approved by the Commission in Case No. 2010-00458.¹¹

	Estimated Cost	Depreciable Life	Pro Forma Depreciation Expense
Water Treatment Plant Upgrade	\$ 4,633,083	35	\$ 132,374
500,000 Elevated Storage Tank	1,141,381	40	28,535
Transmission Main	181,238	75	2,417
Computer Software	40,298	5	8,060
	<u>\$ 5,996,000</u>		<u>\$ 171,384</u>

With the project, Rattlesnake Ridge expanded its water treatment capacity from 1.608 million gallons per day ("MGD") to 2.408 MGD and added a 500,000-gallon

¹¹ Case No. 2010-00458, *Application of Rattlesnake Ridge Water District for a Certificate of Public Convenience and Necessity to Construct, Finance, and Increase Rates Pursuant to KRS 278.023* (Ky. PSC Dec. 22, 2010).

storage tank. The project was 89 percent¹² complete at the end of the test year and was fully operational at the time of Staff's review. It is Staff's position that the cost of the plant should be included in pro forma operations. Depreciation Expense and Interest Expense are the only test-year income statement accounts that will be materially affected by the project. Staff accounted for the interest when calculating Rattlesnake Ridge's debt service requirement. Staff estimated the impact on test-year depreciation for each plant subsidiary account using the information provided in Rattlesnake Ridge's application filed in Case No. 2010-00458.¹³ Calculation of the new plant's actual depreciation will not be performed until Rattlesnake Ridge's 2013 audit is completed. During the audit process, the entire project's costs that have been charged to Construction Work in Progress will be reclassified to the proper plant subsidiary accounts and depreciation on the reclassified amounts will be accrued for 2013.

¹²

Construction Work in Progress at December 31, 2012,	
Annual Report Page 13	\$ 5,363,354
Divide by: Cost Approved by the Commission Order	<u>5,996,000</u>
Percent Complete	<u><u>89%</u></u>

¹³ Case No. 2010-00458, Application, Final Engineering Report, C-1.

(N) Taxes Other Than Income. Rattlesnake Ridge reported \$48,754 for test-year Taxes Other Than Income. As previously discussed, Staff reduced this amount by \$2,302 to remove test-year sales tax remittances. Staff further decreased the test-year amount by \$8,100 to remove \$369 paid to the Carter County Sheriff for property taxes and to account for changes to payroll taxes that will occur due to the decrease to test-year wages. Staff's adjustment is shown below.

Pro Forma Employee Wage Expense	\$ 466,505
Test-Year Commissioner Salary	<u>14,619</u>
Total Pro Forma Wage Expense	481,124
Times: 7.65 Percent	<u>7.65%</u>
Pro Forma Payroll Tax Expenses	36,806
Less: Test Year	<u>(46,452)</u>
Decrease	<u>\$ (9,646)</u>

(O) Nonutility Income. Rattlesnake Ridge reported Nonutility Revenues below-the-line in the amount of \$18,460.¹⁴ This revenue was recognized as a result of accounting errors that occurred when recording: 1) a gain on the disposal of property; 2) a reimbursement from a vendor for the double payment of an invoice; and 3) a contribution from the Commonwealth of Kentucky to pay the cost of relocating a water main. Staff removed the test-year amount to correct these errors. Listed below are the cash receipt amounts and correct accounts to which they should have been recorded.

Description	Amount	Correct Account
Plant Salvage	\$ 7,395	Accumulated Depreciation
Vendor Reimbursement	3,315	Accounts Payable
Reimbursement for Main Relocation	<u>7,750</u>	Contribution in Aid of Construction
Total	<u>\$ 18,460</u>	

Rates

To calculate the rates to produce the Staff-recommended revenue requirements, Staff increased current rates by the percentage increase in the Staff-recommended revenue requirement evenly across the board to Rattlesnake Ridge's current rates. This method, which Rattlesnake Ridge also used, allocates the revenue-requirement increase to all customers in an equal manner.

¹⁴ The Commission generally includes below-the-line revenues in a non-profit utility's pro forma operations to award the benefits of these revenues to ratepayers in the absence of stockholders.

Overall Revenue Requirement and Required Revenue Increase

Rattlesnake Ridge calculated its Overall Revenue Requirement to be \$2,609,868 by combining three components.¹⁵ First, Rattlesnake Ridge included an amount to make deposits to the operation and maintenance fund that is sufficient to pay all pro forma operation and maintenance expenses, pro forma tax expenses, and payments on loans that are subordinate to its highest-ranked debts. In addition, it included the three-year average principal and interest payments on its highest-ranked debts to make deposits into the sinking fund from which these debts will be repaid. Finally, it requested recovery of depreciation expense, a non-cash item in the amount of \$595,061, to provide working capital to be used for capital investment and other purposes.¹⁶

15

Pro Forma Operation, Maintenance, Tax Expense	\$ 1,515,823
Average Debt Principal and Interest	498,984
Depreciation Expense	<u>595,061</u>
Overall Revenue Requirement	<u>\$ 2,609,868</u>

¹⁶ 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. It may also be used to offset decreases to operating income that may occur between general rate adjustments. See, e.g., 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).

Staff applied the DSC (“Debt Service Coverage”) Method to calculate Rattlesnake Ridge’s Overall Revenue Requirement to be \$2,642,541. This method is historically applied by the Commission to a water district or water association that has outstanding long-term indebtedness. The Commission’s method includes all the revenue requirement components requested by Rattlesnake Ridge, plus an allowance for working capital that is in addition to Depreciation Expense. The amount of the additional working capital is equal to the net revenues that are necessary to meet the minimum DSC ratio requirement less the average principal and interest payment. Staff calculated this amount to be \$94,578 for Rattlesnake Ridge.¹⁷

To generate the overall revenue requirement calculated by Staff, Rattlesnake Ridge must increase revenues by \$589,043. A comparison of the Overall Revenue Requirement and the Required Revenue Increase calculated by Staff and by Rattlesnake Ridge is shown below. While there are many differences in the components shown in each calculation, there is no material difference in the Required Revenue Increase.

17

Five-Year Average Principal and Interest Payments on Highest Rank Debts	\$ 472,888
Times: Required DSC Ratio	<u>120%</u>
Net Revenues Required	567,466
Less: Average Principal and Interest Payments	<u>(472,888)</u>
Additional Working Capital	<u><u>\$ 94,578</u></u>

	Rattlesnake Ridge	Staff
Pro Forma Operating Expenses	\$2,110,884	\$2,054,372
Plus: Average Principal and Interest Payments	498,984	493,591
	<u> </u>	<u>94,578</u>
Overall Revenue Requirement	2,609,868	2,642,541
Less: Other Operating Income		(75,571)
Interest Income	<u>(66)</u>	<u>(66)</u>
Revenue Required from Rates	2,609,802	2,566,904
Less: Pro Forma Present Rate Revenues	<u>(2,022,798)</u>	<u>(1,977,861)</u>
Required Revenue Increase	<u>\$587,004</u>	<u>\$ 589,043</u>
Percent Increase	<u>29.02%</u>	<u>29.78%</u>

As shown below, Staff calculated Rattlesnake Ridge's average annual debt payment using the five-year period beginning January 1, 2014. This period better matches the anticipated life of the rates to be implemented as a result of this proceeding than the three-year average requested by Rattlesnake Ridge.¹⁸

¹⁸ The six-month suspension period for the tariff requested in the application will end on April 14, 2014, over 15 months from the end of the test period. Also, Rattlesnake Ridge's previous rate application was filed five years ago.

	Principal and Interest Payments					Five-Year Average
	2014	2015	2016	2017	2018	
Highest Rank Debts						
Rural Development Bonds						
1989 Series	\$11,850	\$11,550	\$11,250	\$10,950	\$11,625	\$ 11,445
1992 Series	21,375	21,412	21,425	21,413	21,375	21,400
1994 Series A	23,512	24,085	23,635	24,162	23,668	23,812
1994 Series B	10,969	10,766	11,052	10,827	10,603	10,843
1995 Series A	24,007	24,580	24,130	24,657	24,162	24,307
1995 Series B	5,500	5,503	5,502	5,496	5,486	5,497
2000 Series A	49,717	50,020	50,277	49,513	50,702	50,046
2000 Series B	23,358	24,020	23,660	23,300	23,918	23,651
2001 Series A	41,310	41,249	41,172	41,571	40,954	41,251
2001 Series B	3,326	3,281	3,334	3,285	3,333	3,312
2004 Series A	72,331	72,478	72,092	72,173	73,631	72,541
2004 Series B	29,853	29,503	29,642	29,759	29,855	29,722
2011 Series A	47,510	47,585	47,650	47,705	47,750	47,640
2011 Series B	42,225	42,330	42,425	42,510	42,090	42,316
Kentucky Rural Water Finance Corporation, Series 2008 C	54,477	53,235	56,993	55,373	58,752	55,766
Kentucky Area Development District Financing Trust Lease	9,861	9,624	9,373	9,044	8,783	9,337
Total, Highest Rank Debts						<u>472,888</u>
Subordinate Debts						
Commercial Bank of Grayson						
Loan No. 1, 2009 Truck						
Loan No. 2, Computers	4,390	4,390	4,390	4,390	3,658	4,243
Loan No. 3, Excavator	5,241	5,241	5,241	5,241	3,057	4,804
Loan No. 4, 2012 Truck	5,016	5,016	5,016	5,016	2,508	4,514
Loan No. 5, Working Capital						
U.S. Army Corps of Engineers	7,041	7,091	7,091	7,091	7,091	7,081
Total, Subordinate Debts						<u>20,643</u>
Total Average Debt Principal and Interest Payment						<u>\$ 493,531</u>

Highest-Ranked Debts. The highest-ranked debts, as identified by the Current Bond Resolution,¹⁹ are secured by the revenues of the system and take priority over all subordinate debts. From review of the Commission's records, Staff determined that Rattlesnake Ridge sought and received authorization from the Commission to assume

¹⁹ Bond Resolution for Waterworks Revenue Bonds, 2011 Series A and B, Exhibit B.

all the Rural Development (“RD”) Bonds and the Kentucky Rural Water Finance Corporation (“KRWFC”) loan.²⁰

Staff found no evidence that the Kentucky Area Development District (“KADD”) lease had been authorized by the Commission. Rattlesnake Ridge personnel could not provide Staff with evidence of such authorization. They stated that the lease agreement was executed at the direction of a former employee and they did not know whether the Commission had approved the lease. Ross, Sinclair & Associates, the administrator of the KADD Financing Trust Lease Acquisition Program, provided Staff with information demonstrating that the lease was executed in 2005 to construct water system improvements that extended water service to unserved customers. Staff included the lease payments in its calculations.

In its average debt-payment calculation, Staff included the principal and interest payment to be made on all the highest-ranked debts with corrections made to the amounts shown by Rattlesnake Ridge for the 2004 Series A Bonds, the RD 2011 Series B Bonds, and the KRWFC loan.

Subordinate Debts. To calculate its annual average principal and interest payments, Rattlesnake Ridge included five loans payable to the Commercial Bank of Grayson (“Bank”) and a loan payable to the U.S. Army Corp of Engineers (“Corp”). These notes are subordinate to Rattlesnake Ridge’s highest-ranked debts. As explained below, Staff included payments on three of the Bank notes and the Corp note.

²⁰ KRS 278.300(1) requires a public utility to obtain Commission authorization prior to issuing an evidence of indebtedness. KRS 278.300(8) expressly exempts notes that “are payable at periods of not more than two (2) years from the date” of issuance and “to renewals of such notes, from time to time, not exceeding in the aggregate six (6) years from the date of the issue of the original notes so renewed or refunded.”

The first four bank loans were used to finance the purchase of equipment. Staff excluded Loan No. 1 from its calculation. The original principal balance of this note was fully repaid in 2013. No payments will be made on this loan in 2014 or beyond. Staff included principal and interest payments for Loan Nos. 2, 3, and 4, but used different payment amounts than those requested by Rattlesnake Ridge. Each loan has a two-year term with a balloon payment due at maturity. Rattlesnake Ridge stated that the balloon payment of each loan will be refinanced with a similar balloon loan. It stated that a third loan will be assumed to refinance the second loan and that the third loan will be paid in full upon maturity. It stated that this approach results in full repayment of the original loan within the six-year period allowed by KRS 278.300(8) and that it had used this method of financing for equipment purchases in prior periods.

In its average annual debt payment calculation, Rattlesnake Ridge accounted for full repayment of these loans in 2013 and 2014. This method of rate recovery does not match the plan of financing and is, therefore, not proper. Staff calculated monthly principal and interest payments on these loans using a six-year amortization period that ends six-years from each loan's origination date. This method better matches Rattlesnake Ridge's revenue requirements to its plan of financing.

Staff excluded Loan No. 5 from its calculation. This loan, with an original principal balance of \$75,075, originated on March 18, 2013, has a one-year term, and accrues annual interest at 4.75 percent. Rattlesnake Ridge stated this loan was assumed to provide cash working capital that was needed to pay expenditures when cash flow from revenues was insufficient. Rattlesnake Ridge could not identify the specific expenditures that were paid with the loan proceeds.

The appropriateness of rate recovery for this loan is dependent on the use of its proceeds. Rate recovery may be appropriate for the proceeds that were used to finance capital improvements. Rate recovery is not appropriate for any portion that was used for pay operating expenses. The Commission has long held that rate recovery of loan funds used to pay operating expense constitutes retroactive ratemaking and is, therefore, inappropriate.²¹

Determining the use of the loan proceeds was beyond the scope of Staff's review.²² Without knowing its use, Staff did not include any portion of the loan payments in its calculation. Any portion of this loan that Rattlesnake Ridge can demonstrate was used for capital improvements may be includable in revenue requirements. This should only be allowed if Rattlesnake Ridge also identifies and quantifies the adjustments necessary to account for all changes to other accounts that were affected by each improvement. These accounts may include, but would not be limited to, operating revenues, purchased power, purchase water, chemicals, transportation expenses, and depreciation expense. Rattlesnake Ridge may file this information when responding to this report.

On July 10, 2000, Rattlesnake Ridge entered into a 30-year contract with the Corp to reserve water storage space in Grayson Lake. Rattlesnake Ridge included

²¹ Case No. 7688, *Application of Running Creek Disposal System, Inc., for an Order Pursuant to Chapter 278 of the Kentucky Revised Statutes Authorizing an Adjustment in Rates for the Existing Sewage Treatment Plant Serving Running Creek Estates Subdivision, Jefferson County, Kentucky* (Ky. PSC. Aug. 1, 1980) at 3.

²² Determining the use of the loan proceeds would require a significant analysis of all financial transactions reported by Rattlesnake Ridge during 2013. The scope of Staff's financial review in this proceeding was limited to determining whether operations reported for 2012 were fairly representative of normal operations. While this required a limited review of selected post-test-period transactions, it did not require the in-depth review necessary to determine the use of the loan proceeds.

payments on this contract in its debt service calculation. Staff included the payments requested by Rattlesnake Ridge.

Signatures



Prepared by: David Foster
Financial Analyst, Water and Sewer
Revenue Requirements Branch
Division of Financial Analysis



Prepared by: Jason Green
Rate Analyst, Communications, Water
and Sewer Rate Design Branch
Division of Financial Analysis

ATTACHMENT A
 STAFF REPORT, CASE NO. 2013-00338
 RATES CALCULATED BY STAFF

Monthly Rates

5/8- X 3/4-Inch Meter

First	1,000	Gallons	\$ 19.32	Minimum Bill
Next	4,000	Gallons	11.84	per 1,000 Gallons
Next	5,000	Gallons	10.19	per 1,000 Gallons
Next	10,000	Gallons	8.75	per 1,000 Gallons
Next	20,000	Gallons	6.13	per 1,000 Gallons
All Over	40,000	Gallons	4.82	per 1,000 Gallons

3/4-Inch Meter

First	5,000	Gallons	\$ 66.69	Minimum Bill
Next	5,000	Gallons	10.19	per 1,000 Gallons
Next	10,000	Gallons	8.75	per 1,000 Gallons
Next	20,000	Gallons	6.13	per 1,000 Gallons
All Over	40,000	Gallons	4.82	per 1,000 Gallons

1-Inch Meter

First	10,000	Gallons	\$ 117.65	Minimum Bill
Next	10,000	Gallons	8.75	per 1,000 Gallons
Next	20,000	Gallons	6.13	per 1,000 Gallons
All Over	40,000	Gallons	4.82	per 1,000 Gallons

1 1/2-Inch Meter

First	30,000	Gallons	\$ 266.39	Minimum Bill
Next	10,000	Gallons	6.13	per 1,000 Gallons
All Over	40,000	Gallons	4.82	per 1,000 Gallons

2-Inch Meter

First	50,000	Gallons	\$ 375.91	Minimum Bill
All Over	50,000	Gallons	4.82	per 1,000 Gallons

3-Inch Meter

First	100,000	Gallons	\$ 617.14	Minimum Bill
All Over	100,000	Gallons	4.82	per 1,000 Gallons

4-Inch Meter

First	200,000	Gallons	\$ 1,099.14	Minimum Bill
All Over	200,000	Gallons	4.82	per 1,000 Gallons

6-Inch Meter

First	500,000 Gallons	\$2,546.98	Minimum Bill
All Over	500,000 Gallons	4.82	per 1,000 Gallons

Wholesale Rates

Big Sandy Water District	\$3.82	per 1,000 Gallons
--------------------------	--------	-------------------

City of Vanceburg	\$3.82	per 1,000 Gallons
-------------------	--------	-------------------

City of Olive Hill	\$4.30	per 1,000 Gallons
--------------------	--------	-------------------

Kentucky Department of Parks (Golf Course Only)	\$4.63	per 1,000 Gallons
--	--------	-------------------

Sandy Hook Water District

First	50,000 Gallons	\$145.15	Minimum Bill
All Over	50,000 Gallons	\$2.90	per 1,000 Gallons

ATTACHMENT B
 STAFF REPORT, CASE NO. 2013-00338
 RATTLESNAKE RIDGE WATER DISTRICT
 ENGINEERING DIVISION'S
 ANALYSIS OF ASSET SERVICE LIVES

Historically, the Commission has relied upon 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
Group 311, Pumps	10	20	20
Group 331, Lines	40	75*	50-75
Group 341, Transportation Equipment	5	7	7
Group 345, Excavator	5	12.5	10-15

* The utility has requested to depreciate its water line asset group 331 using a 75-year life cycle. This is within the NARUC study range and is considered reasonable and appropriate. As to asset groups 311, 341, and 345, the utility appears to be utilizing

service lives outside the range recommended by NARUC. 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, are reasonable and appropriate.

Prepared October 11, 2013:



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

Mr. Bill Gilbert
Rattlesnake Ridge Water District
P. O. Box 475
Grayson, KY 41143

Mr. Bill Gilbert
Rattlesnake Ridge Water District
P. O. Box 475
Grayson, KY 41143