

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF PENDLETON COUNTY	)	
WATER DISTRICT FOR AN ADJUSTMENT IN	)	
RATES PURSUANT TO THE ALTERNATIVE	)	CASE NO.
RATE FILING PROCEDURE FOR SMALL	)	2012-00413
UTILITIES	)	

NOTICE OF FILING OF COMMISSION STAFF REPORT

Notice is hereby given that, in accordance with the Commission's Order of October 3, 2012, 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.



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

DATE OCT 29 2012

cc: Parties of Record

STAFF REPORT  
ON  
PENDLETON COUNTY WATER DISTRICT  
CASE NO. 2012-00413

Pendleton County Water District ("Pendleton District") provides water service to approximately 2,250 customers residing in the Kentucky counties of Campbell, Grant and Pendleton. On September 10, 2012, it filed an application with the Commission requesting to adjust its rates for water service based on operations for the test-year ending December 31, 2011.<sup>1</sup>

In its application, Pendleton District provided financial exhibits demonstrating that a revenue increase of \$264,760, or 21.8 percent, is justified. These exhibits are presented below in condensed form.<sup>2</sup>

Pro Forma Operating Expenses	\$	1,363,605
Plus: Average Annual Debt Principal and Interest Payments		139,895
Debt Service Coverage		24,262
 Total Revenue Requirement		 1,527,762
Less: Other Operating Revenue and Non-Operating Revenue		(47,003)
 Total Revenue Required from Water Sales		 1,480,759
Less: Pro Forma Present Rate Water Sales		(1,215,999)
 Revenue Increase Warranted	\$	 264,760
Percentage Increase		21.8%

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<sup>1</sup> The Application can be found at: <http://psc.ky.gov/Home/Library?type=Cases&folder=2012cases/2012-00413>.

<sup>2</sup> Refer to Exhibit 7 and Exhibit 8 of the Application for the fully disclosed exhibits.

Noting its current cash reserves are sufficient to warrant a reduction to the revenue requirement,<sup>3</sup> Pendleton District requests rates that will produce additional revenues of only \$122,985, a 10.1 percent increase. Revenues at this level will result in annual revenues that are \$141,775 less than the revenue requirement calculated by Pendleton District.

The rates requested by Pendleton District will produce the requested revenue increase. To develop these rates, Pendleton District first assigned the 10.1 percent increase evenly to each of its customer classes.<sup>4</sup> It then increased the minimum bills and volumetric rates applicable to each customer class to generate the assigned revenues. When determining the amounts of the minimum bills and volumetric rates, Pendleton District applied an approximate 10 percent increase to its rate structure so as to maintain the approximate 10 percent increase to revenues by each customer class.

To determine the reasonableness of the proposed rates, Commission Staff ("Staff") performed a limited financial review of Pendleton District'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.

A summary of Staff's findings and recommendations are summarized in this report. Samuel Bryant reviewed the calculation of revenue requirements. Eddie

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<sup>3</sup> Application, Exhibit 6, Page 3, Item D.

<sup>4</sup> Application, Exhibit 8, Page 2.

Beavers reviewed the billing analysis, reported revenues, and the method used to calculate the proposed rates.

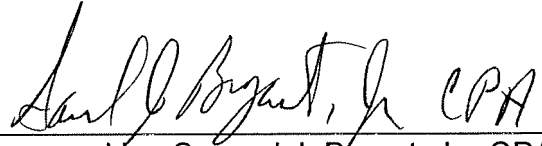
As shown in this report at Attachment A, Page 1, Staff calculated Pendleton District's required revenue increase to be \$168,908; however, Staff recommends that the Commission approve a revenue increase equal to the amount requested by Pendleton District. While these revenues do not meet the revenue requirement calculated by Staff or by Pendleton District, they do provide net revenues equal to at least 120 percent of Pendleton District's average annual debt payments as required by its debt agreements. This is demonstrated below and is discussed in more detail in Attachment A.

Revenue Requirement Requested by Pendleton District	\$ 1,385,987
Less: Pro Forma Expenses Calculated by Staff	(1,267,753)
Less: KACo Lease Payments	(8,797)
Add Back: Staff's Pro Forma Depreciation Expense	<u>242,970</u>
Net Revenues Available to Service Debt	352,407
Average Annual Payments on Debts Subject to Coverage Requirements	<u>\$ 131,098</u>
Debt Service Coverage	<u><u>269%</u></u>

As previously discussed, Pendleton District developed its requested rates by assigning the revenue increase to each customer class. The proposed rates will produce the required revenue assigned to each customer class. This method fairly assigns the additional revenue to all customers in an unbiased manner. Absent a cost-of-service study or other evidence indicating this method results in an inequitable or unfair distribution of the revenue increase to each customer class, Staff recommends that it be accepted by the Commission and that the rates as requested in the application and set forth in Attachment B be approved. As Pendleton District has not filed a cost-of-

service study in this case and has not had a general rate increase since 2002, Staff recommends that Pendleton District be required to file a cost-of-service study in its next application for a general rate increase. The billing analysis showing that these rates generate the appropriate level of revenue is shown at Exhibit 8 of the Application.

Signatures



Prepared by: Samuel J. Bryant, Jr., CPA  
Manager, Water and Sewer Revenue  
Requirements Branch  
Division of Financial Analysis



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

ATTACHMENT A  
STAFF REPORT, CASE NO. 2012-00413

Staff's calculation of Pendleton District's required revenue increase is shown below. Immediately following calculation is an explanation for the determination of the Debt Service and the Debt Service Coverage ("DSC") requirements included in the calculation. All other components included in the calculation are shown in the Pro Forma Operating Statement that appears on Page 5.

Pendleton District's Required Revenue Increase  
as Presented by Staff

Pro Forma Operating Expenses	\$ 1,267,753
Plus: Debt Service	139,895
Debt Service Coverage	24,262
Total Revenue Requirement	1,431,910
Less: Other Operating Revenue	(37,540)
Interest Income	(9,463)
Revenue Required from Water Sales	1,384,907
Less: Pro forma Present Rate Water Sales	(1,215,999)
Required Revenue Increase	\$ 168,908
Percentage Increase	13.89%

Debt Service. Staff recommends the Commission accept the debt service requirement requested by Pendleton District in the amount of \$139,895. This amount is equal to the three-year average annual principal and interest payments for the years 2012, 2013, and 2014<sup>5</sup> on all long-term debts outstanding at the time Pendleton District filed its application. These debts include bonds payable to Rural Development ("RD"), Series 1977, 1997, 2004 and 2010; a 2001 loan payable to Kentucky Rural Water

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<sup>5</sup> Application, Exhibit 7 at 3.

("KRW"); and a 1997 lease agreement with the Kentucky Association of Counties ("KACo").<sup>6</sup>

Staff reviewed Pendleton District's calculation of the average annual payments and the supporting documentation provided in its Application. Staff agrees that the amount requested represents, in all material respects, the average annual principal and interest payments that will become due in each of the next three to five years, the anticipated life of the water service rates that will be approved in this case.

DSC. In addition to the annual debt payments, Pendleton District requested recovery of a DSC. This request follows the Commission's historic method for calculating a water district's revenue requirements. Pendleton District determined its DSC to be \$24,262<sup>7</sup> by applying a 20 percent coverage ratio to the average annual payments to be made on the RD bonds and applying a 10 percent ratio to the KRW bond payment and the KACo lease payment. Staff disagrees with the DSC ratio applied to the KRW and KACo debts.

A 20 percent coverage ratio on the KRW loan is required by both the KRW loan agreement and the RD bond resolutions. The KRW Assistance Agreement specifically requires that Pendleton District's net revenues be equal to at least 120 percent of the average annual debt service payments to KRW.<sup>8</sup> Also, RD recognizes that the KRW

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<sup>6</sup> Application, Exhibit 10.

<sup>7</sup> Application, Exhibit 7 at 2.

<sup>8</sup> Application, Exhibit 10, Assistance Agreement with KRW at 17.

bonds rank on parity with all RD bonds.<sup>9</sup> As such, the RD bond resolutions require Pendleton District to maintain a 120 percent DSC on the KRW bonds.<sup>10</sup>

Staff has thoroughly reviewed the KACo lease agreement and found no requirement within the agreement for the requested 10 percent coverage.<sup>11</sup> Further, this lease is not recognized in the RD resolutions. Therefore, it is Staff's opinion that no DSC is required on the lease.

The actual DSC requirements of Pendleton District's debts are correctly calculated below.

<u>Lendor</u>	<u>Average Annual Payment</u>	<u>DSC Percentage</u>	<u>DSC Requirement</u>
RD and KRW	\$ 131,098	20%	\$ 26,220
KACo	<u>8,797</u>	0%	<u>-</u>
Total	<u>\$ 139,895</u>		<u>\$ 26,220</u>

Although Staff calculated a different DSC requirement, it recommends that the Commission accept the amount requested by Pendleton District. In support of its recommendation, Staff notes that the use of the amount requested will not result in a violation of the 120 percent DSC requirements of RD or KRW. In fact, the DSC component can be removed entirely from the calculation of revenue requirements and no violation of the DSC requirements will result. The calculations demonstrating this are shown below.

<sup>9</sup> Application, Exhibit 10, RD Bond Resolution Series 2010, Appendix B at 2.  
<sup>10</sup> Application, Exhibit 10, RD Bond Resolution Series 2010 at 20.  
<sup>11</sup> Application, Exhibit 10.



	<u>With DSC</u>	<u>Without DSC</u>
Revenue Requirement Requested by Pendleton District	\$ 1,385,987	\$ 1,385,987
Remove DSC Requested by Pendleton District		(24,262)
Adjusted Revenue Requirement	\$ 1,385,987	\$ 1,361,725
Less: Staff's Pro Forma Operating Expenses	(1,267,753)	(1,267,753)
Less: KACo Lease Payments	(8,797)	(8,797)
Add Back: Staff's Pro Forma Depreciation Expense	242,970	242,970
Net Revenues for DSC Calculation	352,407	328,145
Divide by: Average Annual RD and KRW Bond Payment	\$ 131,098	\$ 131,098
DSC	<u>269%</u>	<u>250%</u>

Pro forma Operating Statement  
as Presented by Staff

	Test Year	Adjustments	Ref.	Pro Forma
Operating Revenues				
Water Sales	\$ 1,202,507	\$ 13,492	(A)	\$1,215,999
Other Operating Revenues	<u>37,540</u>			<u>37,540</u>
Total Operating Revenues	<u>1,240,047</u>	<u>13,492</u>		<u>1,253,539</u>
Operating Expenses				
Operation and Maintenance				
Salaries and Wages - Employees	297,298			297,298
Salaries and Wages - Officers	23,600			23,600
Employee Pensions and Benefits	93,098			93,098
Purchased Water	403,943	9,090	(B)	413,033
Purchased Power	19,472			19,472
Materials and Supplies	83,709	(37,343)	(C)	46,366
Contractual Services - Accounting	18,600			18,600
Contractual Services - Testing	1,185			1,185
Contractual Services - Other	35,617	(2,560)	(D)	33,057
Equipment Rental	2,425			2,425
Transportation Expense	21,876			21,876
Insurance - Vehicle	6,182			6,182
Insurance - General Liability	10,087			10,087
Insurance - Worker's Comp	4,618			4,618
Insurance - Other	1,209			1,209
Advertising	1,166			1,166
Bad Debt	4,632			4,632
Miscellaneous	<u>2,983</u>	<u>(848)</u>	(E)	<u>2,135</u>
Total Operation and Maintenance	1,031,700	(31,661)		1,000,039
Depreciation	348,712	(105,742)	(F)	242,970
Taxes Other Than Income	<u>24,744</u>			<u>24,744</u>
Total Operating Expenses	<u>1,405,156</u>	<u>(137,403)</u>		<u>1,267,753</u>
Net Operating Income	(165,109)	150,895		(14,214)
Other Income and (Deductions)				
Interest Income	9,463			9,463
Loss on Disposition of Property	<u>(50,498)</u>	<u>50,498</u>	(G)	<u>-</u>
Income Available to Service Debt	<u>\$ (206,144)</u>	<u>\$ 201,393</u>		<u>\$ (4,751)</u>

(A) Water Sales. Pendleton District reported \$1,202,507 in test-year water sales revenues. It proposed two adjustments to this amount. First, it proposed an increase of \$3,259 to match reported revenues to the amount billed during the test year, \$1,205,766. Pendleton District submitted a billing analysis as part of its application verifying the amount billed.

Pendleton District then increased billed revenues by \$10,233 to account for an increase to its water service rates that occurred subsequent to the test year. This increase was approved by the Commission in Case No. 2011-00475<sup>12</sup> and was necessary to pass through an increase in wholesale purchased water costs charged by one of Pendleton District's wholesale water suppliers, Northern Kentucky Water District.

Pendleton District's adjustments to test-year water sales result in pro forma water sales revenue from present rates of \$1,215,999.<sup>13</sup> Staff reviewed the adjustments proposed by Pendleton District and finds them to be necessary and appropriate. Staff recommends they be accepted by the Commission.

(B) Purchased Water. As discussed in Reference Item (A), Pendleton District increased its water service rates to pass through an increase to the volumetric wholesale rate charged by Northern Kentucky Water District. While Pendleton District properly increased test-year revenues to account for the pass-through, it did not make a corresponding adjustment to test-year Purchased Water Expense. As shown below,

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<sup>12</sup> Application for a Purchased Water Adjustment Filing of Pendleton County Water District (Ky. PSC December 21, 2011).

<sup>13</sup> Application, Exhibit 8 at 1.

Staff determined that test-year expenses must be increased by \$9,089 to properly account for the increase to purchased water costs.

	<u>Gallons Purchased</u>	<u>Rate per 1,000 gallons</u>	<u>Volumetric Charge</u>
Pro forma	97,771,080	\$ 3.13	\$ 306,023
Less: Test Year, See below			<u>(296,934)</u>
Increase			<u>\$ 9,090</u>
Month	<u>Gallons Purchased</u>	<u>Rate per 1,000 gallons</u>	<u>Volumetric Charge</u>
Jan. - Feb.	15,852,364	\$ 2.97	\$ (47,082)
Mar. - Dec.	<u>81,918,716</u>	3.05	<u>(249,852)</u>
Total Test Year	<u>97,771,080</u>		<u>(296,934)</u>

(C) Materials and Supplies. During the test year, Pendleton District was required to relocate a large portion of water main that supplies its Ammerman Tank. The original main was displaced by a mudslide caused by unusually heavy rainfall. The replacement main is located and constructed so that future disturbance should not occur.

The total cost of the relocation was \$37,343. This amount was reported in account 620, Materials and Supplies. Pendleton District removed this amount from test year operations arguing that it is a non-recurring expense that should not be included in pro forma operations for annual recovery.

It is Staff's position that this expenditure represents the construction of a new asset that should be capitalized and depreciated. Accordingly, Staff removed the amount from account 620, as proposed by Pendleton District, and increased

depreciation expense by \$498<sup>14</sup> to provide for its recovery over its estimated useful 75 years.

(D) Contractual Services. During the test year, Pendleton District paid \$3,200 to Wet or Dry Water Tank Inspection Services to inspect the inside and outside of each of its four water-storage facilities. These inspections are performed every five years.

Pendleton District reduced test-year operations by \$2,560 to amortize the cost of the inspections over 5 years. This accounting treatment evenly matches the cost of the inspections to each annual period that will pass until they are again performed. Staff agrees with the adjustment and recommends it be accepted by the Commission.

(E) Miscellaneous Expense. Pendleton District removed expenses totaling \$848 that were incurred for items that were not necessary for the delivery of potable water and were, therefore, outside of Pendleton District's statutory purpose. Staff agrees with the adjustment and recommends these expenses be removed.

(F) Depreciation Expense. Pendleton District reported test-year depreciation expense in the amount of \$348,712. It proposed to decrease this amount by \$142,574 through two adjustments. First, it proposed a decrease of \$799 to annualize depreciation taken on assets placed into service during the test-year and to remove depreciation on assets that had been fully depreciated at the end of the test year. This adjustment restates test-year depreciation to \$347,913 and is supported by Exhibit 9 of Pendleton District's Application. Staff agrees with this adjustment and recommends it be accepted by the Commission.

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<sup>14</sup> \$37,343, cost / 75 years, depreciable lives assigned to mains = \$498, annual depreciation.

Pendleton District then reduced depreciation expense by an additional \$141,775, noting that cash reserves held for future capital replacements are currently at levels that warrant a reduction to the amount of depreciation recovered through rates.<sup>15</sup> Pendleton District proposed this adjustment for rate-making purposes only. It did not propose a revision to its depreciation practices for accounting and reporting purposes to coincide with the rate-making adjustment.

Staff disagrees with Pendleton District's adjustment. The level of reserve funds should not dictate the amount of depreciation recovered through rates. Furthermore, without a corresponding adjustment to depreciation expense for accounting purposes, Pendleton District will experience an erosion of equity at a rapid rate as there will be no revenues collected to offset this portion of the expense.

As discussed below, Staff agrees that test-year depreciation expense is overstated and recommends that it be decreased by \$108,113 for rate-making purposes. Staff recommends that this adjustment be made for accounting and reporting purposes as well.

Generally, the Commission requires a "large" utility to perform a depreciation study to determine the appropriate depreciable lives to be assigned to each plant account group. Detailed property records specific to historic plant additions, plant retirements, and salvage practices are required to complete a depreciation study. Generally, "small" water utilities, such as Pendleton District, do not maintain property records with enough detail to properly complete a formal study. Furthermore, even if adequate records were maintained, "small" utilities do not have the financial resources

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<sup>15</sup> Application, Exhibit 6, Page 3, Item D.

to fund a formal study. Therefore, to evaluate the reasonableness of the depreciation practices of small utilities, the Commission has historically relied upon the report published in 1979 by the National Association of Regulatory Utility Commissioners (“NARUC”) titled *Depreciation Practices for Small Water Utilities* (“NARUC Study”).<sup>16</sup>

Staff referred to the NARUC Study to evaluate the reasonableness of the depreciable lives assigned to Pendleton District’s assets. Staff found that these lives fall within the NARUC ranges except for those assigned to transmission and distribution mains. The life range for mains in the NARUC study is 50 to 75 years. Pendleton District depreciates mains using a 40-year life. Staff recommends the Commission use a 75-year life for mains when calculating revenue requirements. This will reduce test-year depreciation expense by \$108,113.<sup>17</sup>

In support of its position, Staff argues that the majority of Pendleton District’s transmission and distribution main is made of PVC and ductile iron. These materials are very durable and can maintain their structural integrity for more than 100 years. Pendleton’s District’s mains are thought to be free of material decay as evidenced by the 5 percent water loss reported in its 2011 annual report. This percentage is well below the 15 percent allowed by regulation and warrants a depreciable life for mains that falls toward the outer limit of the NARUC range.

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<sup>16</sup> Application of Northern Kentucky Water District for Approval of Depreciation Study (Ky. PSC November 21, 2007).

<sup>17</sup> Depreciable Basis in Mains	\$9,269,717
Divide by: 75-year Life	<u>75</u>
Pro forma Depreciation for Mains	123,596
Less: Test-Year Depreciation for Mains	<u>(231,709)</u>
Decrease	<u>(\$108,113)</u>

Further, Staff recommends that Pendleton District use a 75-year life to calculate depreciation on mains for accounting purposes in all future reporting periods; however, no adjustment should be made to account for the retroactive effect of this change in accounting estimate. A 75-year life better matches the life expectancy of the mains than a 40-year life and will better match expenses to the revenues that will be generated from the water service rates approved by the Commission in this proceeding. This will minimize the erosion of equity.

As calculated below, Staff recommends a net decrease to test-year depreciation expense of \$105,742.

Annualization Proposed by Pendleton District and Accepted by Staff	\$ (779)
To Account for 75-Year Life Assigned to Mains	(108,131)
Main Relocation, See Reference Item (C)	498
Recognition of Loss on Disposal of Assets, See Reference Item (G)	<u>2,670</u>
Decrease	<u>\$ (105,742)</u>

(G) Loss on the Disposition of Assets. During the test year, Pendleton District recognized losses in the amounts of \$46,433 and \$4,065 upon the retirement and replacement of a pumping station and transportation equipment, respectively. Pendleton District did not include the effects of these losses in the calculation of revenue requirements.

Being assets of a depreciable class, the Uniform Systems of Accounts (“USoA”) requires that any gain or loss realized from their disposition be accounted for using the accumulated depreciation account.<sup>18</sup> Through this accounting treatment, the

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<sup>18</sup> USoA, Page 31, Accounting Instruction 27.B.(2).



depreciable basis of the replacement asset is adjusted to include the amount of the gain or loss recognized on the disposition of the asset replaced. The gain or loss is then recognized over the life of the replacement asset and charged against income as a component of depreciation expense.

Following the accounting requirements of the USoA, Staff removed the losses from the calculation of Income Available to Service Debt and added them to the depreciable basis of the replacement assets. These losses were then recognized in pro forma depreciation expense over the depreciable lives of their replacements. The calculation is shown below.

	<u>Loss</u>	<u>Depreciable Life</u>	<u>Depreciation</u>
Transportation Equipment	\$ 4,065	5	\$ 813
Pumping Station	<u>46,433</u>	25	<u>1,857</u>
Increase to Depreciation	<u>\$ 50,498</u>		<u>\$ 2,670</u>

ATTACHMENT B  
STAFF REPORT, CASE NO. 2012-00413  
STAFF'S RECOMMENDED RATES

Monthly Water Rates

5/8 x 3/4 Inch through 2"Meter

First	2,000 gallons	\$22.45	Minimum bill
Next	3,000 gallons	9.71	per 1,000 gallons
Next	10,000 gallons	9.16	per 1,000 gallons
All Over	15,000 gallons	7.95	per 1,000 gallons

Pendleton County High School

First	125,000 gallons	\$1,018.00	Minimum bill
All Over	125,000 gallons	7.95	per 1,000 gallons

Griffin Industries

First	400,000 gallons	\$3,232.80	Minimum bill
All Over	400,000 gallons	7.95	per 1,000 gallons

City of Butler

First	1,672,917 gallons	\$6,500.95	Minimum bill
All Over	1,672,917 gallons	3.88	per 1,000 gallons

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