

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION FOR RATE ADJUSTMENT ) CASE NO.  
OF NEBO WATER DISTRICT ) 2016-00435

NOTICE OF FILING OF COMMISSION STAFF REPORT

Notice is hereby given that, in accordance with the Commission's Order of January 13, 2017, the attached report containing the findings of Commission Staff regarding the Applicant's proposed rate adjustment has been filed in the record of the above-styled proceeding. Pursuant to the Commission's January 13, 2017 Order, Nebo Water District is required to file written comments regarding the findings of Commission Staff no later than 14 days from the date of this report.



Talina Mathews  
Executive Director  
Public Service Commission  
P.O. Box 615  
Frankfort, KY 40602

DATE MAR 28 2017

cc: Parties of Record

STAFF REPORT  
ON  
NEBO WATER DISTRICT  
CASE NO. 2016-00435

Nebo Water District (“Nebo District”) is a water utility district organized pursuant to KRS Chapter 74 that owns and operates a water distribution system through which it provides retail water service to approximately 1,564 customers that reside in Hopkins County, Kentucky.<sup>1</sup> On December 15, 2016, Nebo District tendered an application (“Application”) to the Commission requesting to increase its water service rates pursuant to 807 KAR 5:076. To ensure the orderly review of the Application, the Commission established a procedural schedule by Order dated January 13, 2017.

Nebo District based its requested rates on a historical test period that coincides with the reporting period shown in its most recent Annual Report on file with the Commission at the time it filed the Application, the calendar year ended December 31, 2015, as required by 807 KAR 5:076, Section 9.

The rates requested by Nebo District would increase the monthly bill of a typical residential customer<sup>2</sup> by \$6.92, from \$35.99 to \$42.91, or approximately 19.23 percent, and would generate \$153,495 in additional annual water sales revenues, a 19.22 percent increase. Nebo District presented financial exhibits in the Application that show

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<sup>1</sup> *Annual Report of Nebo Water District to the Public Service Commission for the Calendar Year Ended December 31, 2015 (“Annual Report”)* at 12 and 54.

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

how Nebo District calculated the amount of the requested revenue increase. The exhibits are summarized below in condensed form.

Pro Forma Operating Expenses	\$ 934,788
Plus: Average Annual Principal and Interest Payments	21,101
Additional Working Capital	<u>2,110</u>
Overall Revenue Requirement	957,999
Less: Other Operating Revenue	-
Interest Income	<u>(5,720)</u>
Revenue Required from Rates	952,279
Less: Pro Forma Present Rate Service Revenues	<u>(798,784)</u>
Required Revenue Increase	<u>\$ 153,495</u>
Percent Increase	<u>19.22%</u>

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

Staff's findings are summarized in this report. Ariel Turnbull reviewed the calculation of Nebo District's Overall Revenue Requirement. Sam Reid reviewed Nebo District's reported revenues and rate design.

#### Summary of Findings

1. Overall Revenue Requirement and Required Revenue Increase. By applying the Debt Service Coverage ("DSC") method, as generally accepted by the

Commission, Staff found that Nebo District's Overall Revenue Requirement is \$940,129 and that a \$109,430 revenue increase, or 13.65 percent, to pro forma present rate revenues is necessary to generate the Overall Revenue Requirement.

2. Water Service Rates. Nebo District proposes to increase its current water service rates by approximately 19.22 percent evenly across the board. Nebo District has not performed a cost-of-service study ("COSS"). The Commission has previously found that an across-the-board increase is an appropriate and equitable method of cost allocation in the absence of a COSS. Staff finds that an across-the-board increase is the appropriate means to allocate the increased revenue requirement. The rates set forth in Attachment A of this report are based upon the revenue requirement as calculated by Staff and will produce sufficient revenues from water sales to recover the \$940,129 Revenue Requirement determined by Staff, an approximate 13.65 percent increase. These rates will increase a typical residential customer's monthly water bill from \$35.99 to \$40.90, an increase of \$4.91, or approximately 13.64 percent.

3. Depreciable Lives. In this report, Staff finds that the current depreciable lives assigned to some of Nebo District's assets should be revised for ratemaking purposes. Any depreciable lives approved by the Commission in this proceeding for rate making purposes should be used by Nebo District for all future accounting and reporting purposes. No adjustment to accumulated depreciation or retained earnings should be made to account for the effect of this change in accounting estimate.

#### Pro Forma Operating Statement

Nebo District's Pro Forma Operating Statement for the test year ended December 31, 2015, as determined by Staff, appears below.

	Test Year	Adjustment (Ref.)	Pro Forma
Operating Revenues			
Sales of Water	\$ 870,912	\$ (69,043) (A)	\$ 801,869
Miscellaneous Service Revenue	18,776	4,334 (A)	23,110
Total Operating Revenues	<u>889,688</u>	<u>(64,709)</u>	<u>824,979</u>
Operating Expenses			
Operation and Maintenance Expenses			
Salaries and Wages - Employees	181,046	(3,300) (B)	177,746
Salaries and Wages - Commissioners	13,200		13,200
Employee Pensions and Benefits	49,405		49,405
Purchased Water	470,068	31,364 (C)	
		(64,979) (D)	436,453
Purchased Power for Pumping	14,303		14,303
Materials and Supplies	38,632	(3,300) (B)	35,332
Contractual Services	16,130		16,130
Transportation Expenses	16,007		16,007
Insurance	17,458		17,458
Bad Debt Expense	1,626		1,626
Advertising Expenses	230		230
Regulatory Commission Expense	2,048		2,048
Miscellaneous Expense	25,757	(4,800) (E)	20,957
Total Operation and Maintenance Expenses	845,910	(45,015)	800,895
Taxes Other Than Income	16,750		16,750
	126,555	189 (B)	
Depreciation		(29,434) (F)	97,310
Total Operating Expenses	<u>989,215</u>	<u>(74,260)</u>	<u>914,955</u>
Net Operating Income	(99,527)	9,551	(89,976)
Interest Income	3,320		3,320
Nonutility Income	6,600	(4,200) (B)	2,400
Income Available to Service Debt	<u>\$ (89,607)</u>	<u>\$ 5,351</u>	<u>\$ (84,256)</u>

(A) Billing Analysis Adjustment. Nebo District provided a billing analysis with its Application that calculated water sales revenue based on water sales for the 12-month period ended October 16, 2016. During its review, Staff found that the billing analysis provided in the Application was based on information outside of the 2015 test period. Staff assisted Nebo District with the preparation of the normalized billing analysis set forth in Attachment B. The test-year normalized revenue for water sales

determined by Staff is \$801,869. The normalized billing analysis results in a decrease to test-year Sales of Water of \$69,043 and an increase to Miscellaneous Service Revenue of \$4,334. The required adjustments are explained as follows:

#### Reclassification of Revenue

Nebo District reported water sales revenue in its 2015 Annual Report of \$870,912. Nebo District included \$4,334 of Miscellaneous Service Revenue in water sales in its 2015 annual report. Staff reclassified the \$4,334 to other operating revenues.

#### Purchased Water Adjustment

Nebo District applied to the Commission for a rate increase pursuant to 807 KAR 5:068 and was granted the increase by Commission Order dated March 22, 2016, in Case No. 2016-00103,<sup>3</sup> increasing test-year normalized revenues by \$25,332.

#### Adjustment for Reduced Sales

Subsequent to the test year, Nebo District experienced a reduction in water sales to coal industry customers. The billing analysis in Attachment B uses billing data from Nebo District's software for the test period and reflects the reduction in water sales, reducing test-year normalized revenues by \$90,041.

(B) Capitalization of Test-Year Meter Installations. During the test year, Nebo District installed six new 5/8-inch x 3/4-inch meter connections to its distribution system

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<sup>3</sup> Case No. 2016-00103, *Purchased Water Adjustment Filing of Nebo Water District* (Ky. PSC Mar. 22, 2016).

with an estimated total cost of \$6,600.<sup>4</sup> Nebo District reported the entire cost of these installations as an expense in its books of original entry at the time they were constructed, and in turn failed to remove the expense and capitalize the installations as Plant in Service and depreciate their cost over their estimated useful lives, as required by the Uniform System of Accounts (“USoA”).<sup>5</sup>

To correct this accounting error in pro forma operations, Staff removed the estimated cost of these connections from test-year expenses and included a provision for their recovery in pro forma depreciation expense. Ideally, Staff would have reduced each of the expense accounts that contain installation costs by a portion of the capitalized costs, but, for simplicity, Staff decreased wages expense and materials and supplies expense, by \$3,300 each, or one half of the total estimated cost. Using this abbreviated method does not have a material effect on the results of Staff’s analysis of Nebo District’s operations. Staff increased pro forma depreciation expense \$189 to reflect the capitalization of the tap fees.<sup>6</sup>

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<sup>4</sup> Nebo District does not utilize a work-order system to track the actual cost of constructing new plant. Absent such a system, the actual cost of the meter installations is unknown and must be estimated. Staff estimated this cost to be \$6,600 by multiplying Nebo District’s current \$1,100 tap fee for a 5/8-inch x 3/4-inch meter installation by the number of new connections installed in 2015. Staff finds that this method produces a reasonable estimate of the total test-year meter installations costs, since the tap fee represents Nebo District’s average installations cost for a meter of this size.

<sup>5</sup> USoA, Accounting Instruction 19 and 33.

<sup>6</sup>

Estimated Cost of Taps	\$ 6,600
Divide by: 35 Years	<u>35</u>
Adjustment to Pro Forma Depreciation	<u>\$ 189</u>

Additionally, Nebo District recorded the collections for its meter connections for the test year as Nonutility Income rather than transferring the balance to Account 215.2, Donated Capital, as required by the USoA.<sup>7</sup> Staff decreased Nonutility Income by \$4,200, the amount that was collected during the test year.

(C) Increase to Wholesale Water Rate. Nebo District purchases wholesale water from the city of Madisonville (“Madisonville”) and Webster County Water District. Subsequent to the test year, Madisonville increased the wholesale rate charged to Nebo District. Madisonville’s current rate is \$4.13 per thousand gallons. Staff increased Nebo District’s test-year purchased water expense by \$31,264 to account for the current rate in pro forma operations.<sup>8</sup>

(D) Purchased Water Expense – Lost Revenue. In its Application, Nebo District requested to decrease its purchased water expense by \$23,812, stating this was due to a sharp decline in metered sales in 2016, which ultimately resulted in a reduced purchased water cost. During its review, Staff determined that Nebo District’s industrial accounts had experienced a sharp decline in water usage from the year ended December 31, 2015, compared to the year ended December 31, 2016. Nebo District stated that this was a result of a reduction of operations at local coal mines in the area.

<sup>7</sup> USoA, page 86 and 87.

<sup>8</sup>

Water Purchased in 2015 (omit 000's)	121,412
Times: 2016 Rate	<u>\$ 4.13</u>
Purchased Water Cost	501,432
Less: Test Year	<u>(470,068)</u>
Adjustment	<u><u>\$ 31,364</u></u>

Staff agrees that Nebo District's revenue, as discussed above, should be adjusted downward according to the reduced customer usage, and a corresponding adjustment downward to purchased water expense should be made as well.

As calculated below, Staff determined from the reduced usage, adjusted for Nebo District's water loss, that a decrease of \$64,969 to purchased water expense is warranted.

Gallons of Water Not Sold	13,940,200
Times: Water Loss Adjustment	<u>1.128636</u>
Total Gallons of Water Not Sold	15,733,412
Divide by:	<u>1,000</u>
Gallons Not Sold (omit 000's)	15,733
Times: 2016 Purchased Water Rate	<u>\$ 4.13</u>
Downward Adjustment	<u><u>\$ 64,979</u></u>

(E) Incentive Pay. During the test year, Nebo District awarded its employees \$4,800, in the form of gift cards, which they termed as "Incentive Pay." It is the Commission's historic practice to exclude, for ratemaking purposes, annual bonuses that are paid to employees. Accordingly, Staff reduced Miscellaneous Expense by \$4,800 to remove the Incentive Pay from test-year operations.

(F) Depreciation. In its Application, Nebo District requested to adjust the lives of certain assets that appear on Nebo District's depreciation schedule for the year ended December 31, 2015. Among these assets were Structures and Improvements, Distribution Reservoirs, Transmission Mains, Meters and Meter Installations, Office Equipment, Transportation Equipment, Power Operated Equipment, and Communications Equipment. While Staff agrees with the adjustments to the lives that

were in Nebo District’s Application, Staff does not agree with the methodology used to generate the total depreciation expense adjustment in Nebo District’s Table A, “Depreciation Expense Adjustments.” Staff has recalculated the depreciation expense adjustment, using the lives proposed by Nebo District, but reverses the error in methodology made in its Application. Staff’s total adjustment is summarized below.

Adjustment to Account for Changes to Depreciable Lives	\$ (32,278)
Adjustment to Remove Test-Year Depreciation Expense on Assets that Had Become Fully Depreciated	(654)
Adjustment to Remove Effects of Negative Depreciation during the Test Year	1,548
Adjustment for New Asset Placed into Service	<u>1,950</u>
Total Adjustment to Test-Year Depreciation Expense	<u>\$ (29,434)</u>

Change to Depreciable Lives

In its Application, Nebo District requested to decrease depreciation in the total amount of \$30,615 to adjust the lives of certain water assets that were outside the ranges recommended by the National Association of Regulatory Utility Commissioners (“NARUC”) in its publication, “Depreciation Practices for Small Water Utilities” (“NARUC Study”).

The NARUC Study provides a range of average service lives that are assigned to water plant account groups by water utilities across the country that design, install, and maintain their water systems in accordance with good engineering practices. It concludes that the ranges are intended to be used as a guide by state regulatory commissions and other water utilities when developing depreciable lives to be assigned to water plant account groups. For example, the NARUC Study found that transmission

and distribution mains are depreciated between 50 and 75 years. Lives outside the NARUC ranges are acceptable when conditions warrant alternative lives.

When evaluating a water district's depreciable lives, the Commission considers an asset group's construction materials, condition, and other factors to determine an appropriate depreciable life that falls either inside or outside of the NARUC ranges. The Commission has assigned lives at the short end and long end of the NARUC ranges when evidence is presented to support such lives. For example, in Case No. 2012-00309,<sup>9</sup> the Commission found that Southern Water and Sewer District's mains should be depreciated using a 50-year life, the shortest life within the NARUC range, because the majority of its main had decayed at a more rapid rate than originally anticipated. In Case No. 2012-00413,<sup>10</sup> the Commission accepted Staff's finding that the depreciable life assigned to Pendleton County Water District's mains should be 75 years because they were thought to be free of noticeable decay and in excellent condition.

When no evidence exists to support a specific life that is inside or outside the NARUC ranges, the Commission has used the mid-point of the NARUC ranges to depreciate utility plant. In Case No. 2013-00154, the Commission found that Henderson County Water District ("Henderson District") was depreciating the cost of some main using a 40-year life and others using a 50-year life. Even though the 50-year life is within the NARUC range, the Commission found that the depreciable life assigned to all of Henderson District's mains should be 62.5 years, the mid-point of the

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<sup>9</sup> Case No. 2012-00309, *Application of Southern Water and Sewer District for an Adjustment of Rates Pursuant to the Alternative Rate Filing Procedure for Small Utilities* (Ky. PSC July 12, 2013).

<sup>10</sup> Case No. 2012-00413, Commission Staff Report on Pendleton County Water District (filed Oct. 29, 2012) at 10.

NARUC range, since no evidence was presented to support the 40-year or 50-year lives.<sup>11</sup>

In its Application, Nebo District included a request to adjust the lives of its depreciable assets to put them within the NARUC range. Staff agrees that these adjustments to Nebo District's depreciable assets properly reflect, in all material respects, the lives that should be assigned to its assets for future reporting periods. Additionally, several assets that were either fully depreciated during the test year, or depreciated prior to the test year, were included in the Depreciation Expense Adjustments table in Nebo District's Application. Staff removed the items that were erroneously included and recalculated the adjustment to account for changes to depreciable lives as shown in Attachment C of this report. The changes made by Staff result in a decrease to depreciation in the amount of \$32,278.

#### Fully Depreciated Assets

Test-year depreciation expense reported on assets listed below resulted in their full depreciation as of the end of the test year. As a result, depreciation expense will not accrue on these assets in future reporting periods. Accordingly, Staff removed their depreciation from Nebo District's test-year expenses, resulting in a decrease to depreciation in the amount of \$654.

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<sup>11</sup> Case No. 2013-00154, *Application of Henderson County Water District for an Alternative Rate Filing* (Ky. PSC Nov. 14, 2013) at Appendix B.

<u>Description Shown in Ledger</u>	<u>In Service Date</u>	<u>Test-Year Expense</u>
Office Building	10/01/85	\$ (492)
Meters	07/01/94	<u>(162)</u>
Total Expense Removed		<u>\$ (654)</u>

#### Negative Depreciation

Test-year depreciation expenses reported on assets listed below resulted in negative depreciation to be recorded during the test year. Nebo District did not have an explanation for this anomaly. Staff believes it was to correct a depreciation error in a prior year. Because this error would not occur normally, Staff removed the effects of the negative depreciation from Nebo District's test-year expenses, resulting in an increase to depreciation in the amount of \$1,548.

<u>Description Shown in Ledger</u>	<u>In Service Date</u>	<u>Test-Year Expense</u>
Booster Pump	07/01/93	236
Radio Modem	04/23/07	<u>1,312</u>
Total Expense Added		<u>\$ 1,548</u>

#### New Asset

During the test year, Nebo District recorded a new asset that was placed into service on December 1, 2015. Because the date the asset was placed into service was at the end of the test period, no depreciation was recorded in the test-year for this asset. Accordingly, Staff included an increase to test-year depreciation in the amount of \$1,950 to recognize the new asset, as calculated below.

<u>Asset</u>	<u>Original Cost</u>	<u>Staff Life</u>	<u>Current Depreciation</u>
Generator	\$34,127	17.5	\$ 1,950

Overall Revenue Requirement and Required Revenue Increase

The Commission has historically applied a DSC method to calculate the Overall Revenue Requirement of water districts and water associations. This method allows for recovery of: 1) cash related pro forma operating expenses; 2) recovery of depreciation expense, a non-cash item, to provide working capital;<sup>12</sup> 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 Nebo District's and Staff's calculations of Nebo District's Overall Revenue Requirement and Required Revenue Increase using the DSC method is shown below.

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<sup>12</sup> The Kentucky Supreme Court has held that the Commission must permit a water district to recover its depreciation expense through its rates for service to provide internal funds for renewing and replacing assets. See *Public Serv. Comm'n of Kentucky v. Dewitt Water Dist.*, 720 S.W.2d 725, 728 (Ky. 1986). Although a water district's lenders require that a small portion of the depreciation funds be deposited annually into a debt reserve/depreciation fund until the account's balance accumulates to a required threshold, neither the Commission nor the Court requires that revenues collected for depreciation be accounted for separately from the water district's general funds or that depreciation funds be used only for asset renewal and replacement. The Commission has recognized that the working capital provided through recovery of depreciation expense may be used for purposes other than renewal and replacement of assets. See Case No. 2012-00309, *Application of Southern Water and Sewer District for an Adjustment in Rates Pursuant to the Alternative Rate Filing Procedure for Small Utilities* (Ky. PSC Dec. 21, 2012).

	Nebo District	Staff	
Pro Forma Operating Expenses	\$ 934,788	\$ 914,955	
Plus: Average Annual Principal and Interest Payments	21,101	20,979	(1)
Additional Working Capital	2,110	4,196	(2)
Overall Revenue Requirement	957,999	940,129	
Less: Other Operating Revenue	-	(23,110)	
Interest Income	(5,720)	(5,720)	
Revenue Required from Rates	952,279	911,299	
Less: Pro Forma Present Rate Service Revenues	(798,784)	(801,869)	
Required Revenue Increase	<u>\$ 153,495</u>	<u>\$ 109,430</u>	
Percent Increase	<u>19.22%</u>	<u>13.65%</u>	

(1) Average Annual Principal and Interest Payments. Nebo District currently has two outstanding loans, one payable to the Kentucky Infrastructure Authority and one payable to the Kentucky Rural Water Finance Corporation ("KRWFC"). In its Application, Nebo District requested recovery of the five-year average annual principal and interest payments on these loans due in 2016 through 2020 in the amount of \$21,101. Staff finds, as shown below, that the average annual debt payment to be included in calculating Nebo District's Overall Revenue Requirement should be the five-year average of the annual principal and interest payments on these loans during the years 2017 through 2021, rather than the years 2016 through 2020 proposed by Nebo District. This five-year average of \$20,979 will allow Nebo District recovery of the debt

payments that will be made during the anticipated life of the rates authorized by the Commission in this proceeding.<sup>13</sup>

Five-Year Average of Debt Payments	
Year	Annual Debt Payment
2017	\$ 21,009
2018	20,521
2019	21,013
2020	21,464
2021	20,887
Total	104,894
Divide by: 5 years	5
Average Annual Principal and Interest Payment	\$ 20,979

(2) Additional Working Capital. The DSC method, as historically applied by the Commission, includes an allowance for additional working capital that is equal to the minimum net revenues required by a district's lenders that are above its average annual debt payments. In addition to depreciation expense, Nebo District requested recovery of an allowance for working capital that is equal to 110 percent of its average annual debt payments.

KRWFC requires that Nebo District charge rates that produce net revenues that are at least 120 percent of its average annual debt payments. Following the Commission's historic practice, Staff calculated Nebo District's allowance for additional

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<sup>13</sup> Generally, the anticipated life of a utility's service rates is based on the frequency of the utility's previous rate case filings, but no longer than five years, since rates tend to become obsolete due to changes that will likely occur to the utility's cost of service in a five-year period.

A review of the Commission's electronic docket system shows that Nebo District last adjusted its monthly water service rates pursuant to 807 KAR 5:001 Section 16, in Case No. 2007-00081, or, approximately ten years ago. Therefore, Staff finds that the anticipated life of the rates approved in this proceeding is five years.

working capital, based on a DSC ratio of 1.20, to be \$4,196, as shown below.<sup>14</sup> Staff included this amount in the calculation of Nebo District's Overall Revenue Requirement.

Average Annual Principal and Interest	\$ 20,979
Times: DSC Coverage Ratio	<u>120%</u>
Total Net Revenues Required	25,174
Less: Average Annual Principal and Interest Payments	<u>(20,979)</u>
Additional Working Capital	<u>\$ 4,196</u>

<sup>14</sup> Inclusion of the additional working capital in Nebo District's revenue requirement is not necessary for it to earn revenues that meet the minimum DSC ratio required by its lenders. As depreciation is a noncash item, it is excluded from the ratio calculation, which is actually a measure of cash flow. As shown below, Nebo District's minimum DSC ratio is met with or without the inclusion of additional working capital.

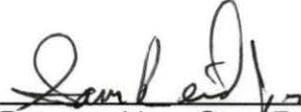
	With Additional Working Capital	Without Additional Working Capital
Overall Revenue Requirement	\$ 940,129	\$ 935,933
Less: Operating and Maintenance Expense	(800,895)	(800,895)
Taxes Other Than Income	<u>(16,750)</u>	<u>(16,750)</u>
Net Revenues	122,484	118,289
Divided by: Average Annual Debt Payments	<u>20,979</u>	<u>20,979</u>
DSC Ratio	<u>584%</u>	<u>564%</u>

Signatures



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



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Prepared by: Sam Reid  
Water and Sewer Rate Design Branch  
Division of Financial Analysis

ATTACHMENT A

ATTACHMENT TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE  
COMMISSION IN CASE NO. 2016-00435 DATED **MAR 28 2017**

Monthly Water Rates

5/8- x 3/4- Inch Meter

First	2,000	gallons	\$ 22.50	Minimum bill
Next	2,000	gallons	9.20	per 1,000 gallons
Next	6,000	gallons	8.70	per 1,000 gallons
Next	10,000	gallons	8.21	per 1,000 gallons
Over	20,000	gallons	7.70	per 1,000 gallons

1-Inch Meter

First	4,000	gallons	\$ 40.90	Minimum bill
Next	6,000	gallons	8.70	per 1,000 gallons
Next	10,000	gallons	8.21	per 1,000 gallons
Over	20,000	gallons	7.70	per 1,000 gallons

1 1/2-Inch Meter

First	10,000	gallons	\$ 93.10	Minimum bill
Next	10,000	gallons	8.21	per 1,000 gallons
Over	20,000	gallons	7.70	per 1,000 gallons

2-Inch Meter

First	20,000	gallons	\$ 175.20	Minimum bill
Over	20,000	gallons	7.70	per 1,000 gallons

3-Inch Meter

First	30,000	gallons	\$ 252.20	Minimum bill
Over	30,000	gallons	7.70	per 1,000 gallons

4-Inch Meter

First	50,000	gallons	\$ 406.20	Minimum Bill
Over	50,000	gallons	7.70	per 1,000 gallons

**ATTACHMENT B**

**ATTACHMENT TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE  
COMMISSION IN CASE NO. 2016-00435 DATED **MAR 28 2017****

<b>Normalized Billing Analysis for: Nebo Water District</b>			
<b>Test Period From:</b>		1/1/15 - 12/31/15	
Rates per final order in PWA case 2016-00103			
<b>Meter Size</b>	<b>Bills</b>	<b>Gallons Sold</b>	<b>Revenue</b>
5/8 inch	18,345	68,402,485	648,842.48
5/8 multiple users	84	614,100	5,632.47
1 inch	203	1,816,300	15,969.03
1.5 inch	25	583,900	4,386.80
2 inch	96	8,274,300	61,383.78
4 inch	24	9,228,900	65,654.00
<b>Totals</b>	<b>18,777</b>	<b>88,919,985</b>	<b>\$801,868.56</b>

<b>5/8 INCH METER</b>									
	<b>USAGE</b>	<b>BILLS</b>	<b>GALLONS</b>	<b>FIRST</b>	<b>NEXT</b>	<b>NEXT</b>	<b>NEXT</b>	<b>OVER</b>	<b>TOTAL</b>
				2,000	2,000	6,000	10,000	20,000	
FIRST	2,000	5,198	5,583,300	5,583,300					5,583,300
NEXT	2,000	7,008	21,165,900	14,016,000	7,149,900				21,165,900
NEXT	6,000	5,518	31,397,885	11,036,000	11,036,000	9,325,885			31,397,885
NEXT	10,000	512	6,684,800	1,024,000	1,024,000	3,072,000	1,564,800		6,684,800
OVER	20,000	109	3,570,600	218,000	218,000	654,000	1,090,000	1,390,600	3,570,600
		18,345	68,402,485	31,877,300	19,427,900	13,051,885	2,654,800	1,390,600	68,402,485
<b>REVENUE BY RATE INCREMENT</b>									
		<b>BILLS</b>	<b>GALLONS</b>	<b>RATE</b>	<b>REVENUE</b>				
FIRST	2,000	18,345	31,877,300	\$19.79	\$363,047.55				
NEXT	2,000		19,427,900	8.10	157,365.99				
NEXT	6,000		13,051,885	7.65	99,846.92				
NEXT	10,000		2,654,800	7.22	19,167.66				
OVER	20,000		1,390,600	6.77	9,414.36				
<b>TOTAL</b>		18,345	68,402,485		\$648,842.48				

<b>5/8 MULTIPLE USERS</b>									
	<b>USAGE</b>	<b>BILLS</b>	<b>GALLONS</b>	<b>FIRST</b>	<b>NEXT</b>	<b>NEXT</b>	<b>OVER</b>	<b>TOTAL</b>	
				4,000	6,000	10,000	20,000		
FIRST	4,000	23	65,100	65,100				65,100	
NEXT	6,000	42	299,900	168,000	131,900			299,900	
NEXT	10,000	18	228,900	72,000	108,000	48,900		228,900	
OVER	20,000	1	20,200	4,000	6,000	10,000	200	20,200	
		84	614,100	309,100	245,900	58,900	200	614,100	
<b>REVENUE BY RATE INCREMENT</b>									
		<b>BILLS</b>	<b>GALLONS</b>	<b>RATE</b>	<b>REVENUE</b>				
FIRST	4,000	84	309,100	\$39.58	\$3,324.72				
NEXT	6,000		245,900	7.65	1,881.14				
NEXT	10,000		58,900	7.22	425.26				
OVER	20,000		200	6.77	1.35				
<b>TOTAL</b>		84	614,100		\$5,632.47				

<b>1 INCH METER</b>									
	<b>USAGE</b>	<b>BILLS</b>	<b>GALLONS</b>	<b>FIRST</b>	<b>NEXT</b>	<b>NEXT</b>	<b>OVER</b>	<b>TOTAL</b>	
				4,000	6,000	10,000	20,000		
FIRST	4,000	91	155,400	155,400				155,400	
NEXT	6,000	79	497,400	316,000	181,400			497,400	
NEXT	10,000	12	171,900	48,000	72,000	51,900		171,900	
OVER	20,000	21	991,600	84,000	126,000	210,000	571,600	991,600	
		203	1,816,300	603,400	379,400	261,900	571,600	1,816,300	
<b>REVENUE BY RATE INCREMENT</b>									
		<b>BILLS</b>	<b>GALLONS</b>	<b>RATE</b>	<b>REVENUE</b>				
FIRST	4,000	203	603,400	\$35.99	\$7,305.97				
NEXT	6,000		379,400	7.65	2,902.41				
NEXT	10,000		261,900	7.22	1,890.92				
OVER	20,000		571,600	6.77	3,869.73				
<b>TOTAL</b>		203	1,816,300		\$15,969.03				

1 1/2 INCH METER				FIRST	NEXT	OVER	
	USAGE	BILLS	GALLONS	10,000	10,000	20,000	TOTAL
FIRST	10,000	5	46,200	46,200			46,200
NEXT	10,000	12	158,500	120,000	38,500		158,500
OVER	20,000	8	379,200	80,000	80,000	219,200	379,200
		25	583,900	246,200	118,500	219,200	583,900

REVENUE BY RATE INCREMENT

		BILLS	GALLONS	RATE	REVENUE
FIRST	10,000	25	246,200	\$81.89	\$2,047.25
NEXT	10,000		118,500	7.22	855.57
OVER	20,000		219,200	6.77	1,483.98
TOTAL		25	583,900		\$4,386.80

2 INCH METER

	USAGE	BILLS	GALLONS	FIRST	OVER	TOTAL
				20,000	20,000	
FIRST	20,000	43	332,300	332,300		332,300
OVER	20,000	53	7,942,000	1,060,000	6,882,000	7,942,000
		96	8,274,300	1,392,300	6,882,000	8,274,300

REVENUE BY RATE INCREMENT

		BILLS	GALLONS	RATE	REVENUE
FIRST	20,000	96	1,392,300	\$154.09	\$14,792.64
OVER	20,000		6,882,000	6.77	46,591.14
TOTAL		96	8,274,300		\$61,383.78

4 INCH METER

	USAGE	BILLS	GALLONS	FIRST	OVER	TOTAL
				50,000	50,000	
FIRST	50,000	12	195,600	195,600		195,600
OVER	50,000	12	9,033,300	600,000	8,433,300	9,033,300
		24	9,228,900	795,600	8,433,300	9,228,900

REVENUE BY RATE INCREMENT

		BILLS	GALLONS	RATE	REVENUE
FIRST	50,000	24	795,600	\$356.69	\$8,560.56
OVER	50,000		8,433,300	6.77	57,093.44
TOTAL		24	9,228,900		\$65,654.00

ATTACHMENT C

ATTACHMENT TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE  
 COMMISSION IN CASE NO. 2016-00435 DATED **MAR 28 2017**

<u>Description Shown in Ledger</u>	<u>In Service Date</u>	<u>Original Cost</u>	<u>Depreciable Life</u>	<u>Pro Forma Expense</u>	<u>Less: Test Year</u>	<u>Adjustment</u>
<b>Structures and Improvements</b>						
Office Addition	07/01/96	\$ 17,280	40	\$ 432	\$ (576)	\$ (144)
Building	07/01/02	11,857	40	296	(395)	(99)
Fence	09/01/09	11,740	30	391	(587)	(196)
40 X 60 Building	06/01/10	19,200	40	480	(640)	(160)
<b>Distribution Reservoirs</b>						
Reservoirs	07/01/81	237,651	50	4,753	(5,941)	(1,188)
Reservoirs	07/01/91	1,066	50	21	(27)	(6)
Reservoirs	07/01/92	138,746	50	2,775	(3,487)	(712)
Reservoirs	07/01/93	4,484	50	90	(112)	(22)
Tank Rehab	06/01/12	118,462	25	4,738	(3,949)	789
Tank Rehab	06/01/04	39,600	20	1,980	(1,320)	660
Tank Rehab	09/01/04	49,964	20	2,498	(1,665)	833
Tank Rehab	04/01/07	175,288	20	8,764	(5,843)	2,921
<b>Transmission and Distribution</b>						
Mains	07/01/81	1,310,972	62.5	20,976	(32,774)	(11,798)
Mains	07/01/84	5,934	62.5	95	(148)	(53)
Mains	07/01/86	15,073	62.5	241	(377)	(136)
Mains	07/01/87	9,606	62.5	154	(240)	(86)
Mains	07/01/88	15,172	62.5	243	(379)	(136)
Mains	07/01/90	16,384	62.5	262	(410)	(148)
Mains	07/01/92	227,037	62.5	3,633	(5,676)	(2,043)
Mains	07/01/93	196,244	62.5	3,140	(4,906)	(1,766)
Mains	07/01/94	51,737	62.5	828	(1,293)	(465)
Mains	07/01/95	12,981	62.5	208	(325)	(117)
Mains	07/01/96	11,492	62.5	184	(287)	(103)
Mains	07/01/97	6,556	62.5	105	(164)	(59)
Mains	07/01/98	404	62.5	6	(10)	(4)
Mains	07/01/99	4,905	62.5	78	(123)	(45)
Mains	07/01/99	300	62.5	5	(8)	(3)
Mains	06/01/06	10,954	62.5	175	(274)	(99)
Mains	12/01/08	6,026	62.5	96	(151)	(55)
Mains	03/01/09	1,197	62.5	19	(30)	(11)
Line Extension	12/01/10	493,957	62.5	7,903	(12,349)	(4,446)
Motor	12/01/11	28,874	62.5	462	(722)	(260)
Line Extension	12/01/11	138,356	62.5	2,214	(3,459)	(1,245)
Line Extension	12/31/14	29,334	62.5	469	(733)	(264)

<u>Description Shown in Ledger</u>	<u>In Service Date</u>	<u>Original Cost</u>	<u>Depreciable Life</u>	<u>Pro Forma Expense</u>	<u>Less: Test Year</u>	<u>Adjustment</u>
Meters and Meter Installations						
Meters	07/01/09	14,171	35	405	(1,417)	(1,012)
Office Equipment						
Computer-Mark	06/30/10	600	10	60	(86)	(26)
Computer & Billing Software	06/30/11	14,320	10	1,432	(2,046)	(614)
Copier	06/30/11	1,078	10	108	(154)	(46)
Computer & Software	06/30/13	8,544	10	854	(1,221)	(367)
Transportation Equipment						
2014 Ford Pickup	09/15/14	28,801	7	4,114	(5,760)	(1,646)
2011 Ford F-350	06/30/11	35,277	7	5,040	(7,055)	(2,015)
Power Operated Equipment						
Boring Machine	11/01/10	10,282	10	1,028	(1,469)	(441)
Ditchwitch Trencher	06/30/11	19,000	10	1,900	(3,800)	(1,900)
Dump Bed	06/30/12	3,594	10	359	(719)	(360)
Excavator	06/30/14	67,320	10	6,732	(9,617)	(2,885)
Hobart Generator	12/18/14	850	10	85	(121)	(36)
Communications Equipment						
Radio Modem	06/01/11	2,665	10	267	(533)	<u>(267)</u>
Total Adjustment for Change to Depreciable Lives						<u>\$ (32,278)</u>

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