



Case No. 2019-00080

Sturgill, Turner, Barker & Moloney, PLLC
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M. Todd Osterloh
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February 21, 2019

Gwen R. Pinson, Executive Director
Public Service Commission
P.O. Box 615
Frankfort, KY 40602-0615

RE: City of Pikeville
Wholesale Water Rate to Mountain Water District

Dear Ms. Pinson:

Please find the enclosed proposed tariff and customer notification for the City of Pikeville's wholesale rate increase to Mountain Water District. The increase is proposed to be effective on April 5, 2019. Pikeville has extended the proposed effective date beyond 30-day requirement to accommodate Mountain Water District's review of Pikeville's Cost-of-Service Analysis, which is also being filed with the Commission.

Please contact me if you have any questions.

Sincerely,
STURGILL, TURNER, BARKER & MOLONEY, PLLC

A handwritten signature in black ink, appearing to read "M. Todd Osterloh".

M. Todd Osterloh



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February 20, 2019

Roy Sawyers, District Administrator
Mountain Water District
P. O. Box 3157
Pikeville, KY 41502

VIA CERTIFIED MAIL & EMAIL
rsawyers@mtwater.org

RE: City of Pikeville Wholesale Water Rates

Dear Mr. Sawyers:

On behalf of the City of Pikeville, I am enclosing the attached documents related to the City of Pikeville's proposed rate increase for wholesale water service to Mountain Water District. You will find a customer notice and tariff sheet. Pikeville plans on filing these documents with the Public Service Commission on or about February 21, 2019.

Sincerely,
STURGILL, TURNER, BARKER & MOLONEY, PLLC

M. Todd Osterloh

MTO/mlm
Enclosures

cc: Daniel Stratton, District Attorney (via email: dan@strattonlaw.net)
Philip Elswick, City Manager (via email: philip.elswick@pikevilleky.gov)

NOTICE

Notice is hereby given that the City of Pikeville proposes to increase its rate for wholesale water service to Mountain Water District effective April 5, 2019. On or about February 21, 2019, documentation will be filed with the Kentucky Public Service Commission to increase rates as follows:

<u>Current Rate</u>	<u>\$ Change</u>	<u>% Change</u>
	<u>Ave. Month</u>	<u>Ave. Rate</u>
First 28,000,000 gal. = \$47,040		
All over 28,000,000 gal. = \$1.30 per 1,000 gallons		

New Rate

All usage with 28,000,000 gallon minimum	\$2.30/1,000gal.	\$27,943.34*	45.96%
36-month Rate Case Expense Surcharge	\$3,200 per month	\$2,500**	N/A

* Based on an average of 463,000,000 gallons per year

** Pikeville proposes a surcharge to recover all expenses it may incur to participate in and defend its proposed rates in any Public Service Commission proceeding that is initiated to investigate the reasonableness of those rates. Pikeville proposes to recover the total amount of expenses associated with the increase in rates over a 36-month period. If no proceeding is established, Pikeville will not seek to recover any amount for Rate Case Expense Surcharge.

The proposed effective date is April 5, 2019. Water flowing through the meter(s) before the effective date will be charged at the current rate while water flowing through the meter(s) on and after the effective date will be charged at the proposed new rate.

The rates contained in this notice are the rates proposed by the City of Pikeville but the Public Service Commission may order rates to be charged that differ from the proposed rates contained in this notice.

Any person may examine this filing at the offices the Pikeville City Hall, City Clerk's Office, located at 243 Main Street in Pikeville, Kentucky; telephone (606) 437-5100.

This filing may also be examined at the offices of the Public Service Commission located at 211 Sower Boulevard in Frankfort, Kentucky, Monday through Friday from 8:00am to 4:30pm or through the PSC website at <http://psc.ky.gov>.

Comments regarding the filing may be submitted to the PSC through its website or by mail to Public Service Commission, Post Office Box 615, Frankfort, KY 40602.

(cont)

A timely written request for intervention that establishes grounds for the request may also be submitted to the Public Service Commission, Post Office Box 615, Frankfort, Kentucky 40602. If the PSC does not receive a written request for intervention within thirty (30) days of the date notice was initially provided, the PSC may take final action on the filing.



Pikeville, Kentucky

February 5, 2019

Cost of Service Analysis for Mountain Water District

Prepared By:



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City of Pikeville, Kentucky

2017 – Mountain Water District – Cost of Service Analysis

Purpose

The purpose of this report is to present a Cost of Service Analysis for the City of Pikeville, Kentucky (City) to determine a fair water rate for the Mountain Water District (MWD).

Current Circumstances

The City provides water to the MWD from the City's water treatment plant and through its extensive water distribution system. In fiscal year (FY) 2017 MWD bought 50% of all water sold to inside customers and provided only 32% of the revenue. Although the City has outside water customers, financial accounting for WMD is included with the inside customers. The City has separate financial accounting for outside customers as well as separate financial accounting for inside sewer customers and outside sewer customers.

It has been eleven years since the water rates for MWD has been increased.

MWD has ten master meters, identified in **Figure 1** and surrounds the City as shown in **Figure 2**. There is one master meter North of the City, two East of the City, two West of the City and five South of the City. The highlighted water lines in green are used by the City to provide adequate service to the MWD master meters.

MWD Master Meters		
ID Number	Name	Meter Size
#1	Cowpen	6 Inch
#2	Town Mountain	8 Inch
#3	Hurricane Creek (Cedar Gap)	4 Inch
#4	Chloe Road	4 Inch
#5	Hoopwood Hollow	2 Inch
#6	Island Creek Mobile Home Park	2 Inch
#7	Coon Branch	2 Inch
#8	Island Creek	4 Inch
#9	South Mayo Trail (Indian Hills)	4 Inch
#10	Smiley Fork	4 inch

Figure 1

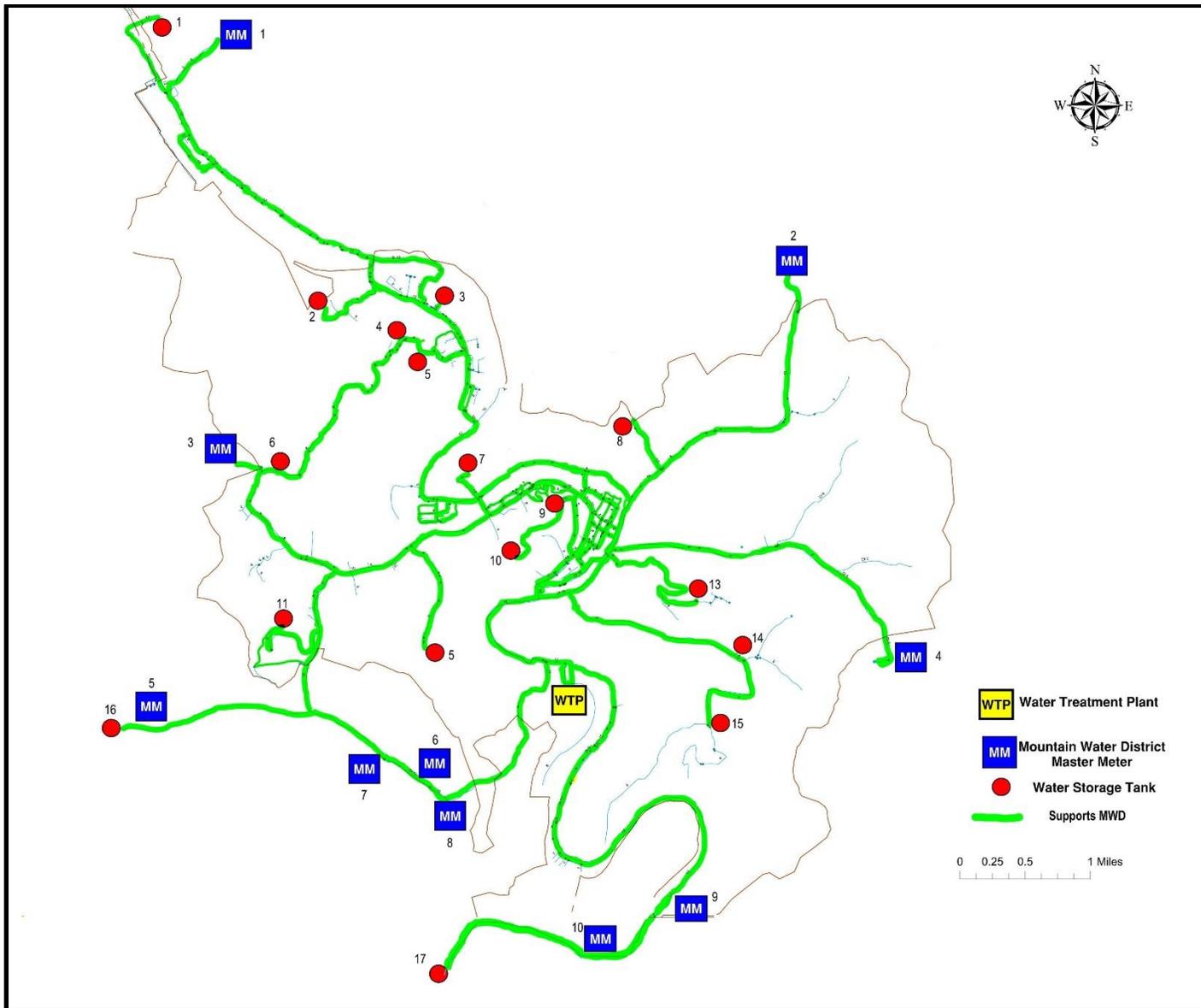


Figure 2

Cost of Service Analysis

A Cost of Service Analysis is a method used to fairly distribute cost based on the level of service provided. The City does not distinguish between classes of customers such as residential, commercial or industrial. All these customers pay the same rate for water service. MWD, however, pays a different rate. This analysis will determine an updated water rate for MWD.

Methodology

The methodology for the Cost of Service Analysis is as follows: (1) determination of revenue requirements; (2) allocation of cost to the functional components of the Cost of Service; (3) distribution of the functional Cost of Service; and (4) calculation of a rate to recover revenue requirements.

This analysis for the City does not include peak day or peak hour demands. The City does not have adequate data for such determination. A “return on equity” or a “risk premium” is also not included in this analysis.

(1) Revenue Requirement

The revenue requirement is the total amount of cash needed for the inside water system to operate for a specific year. The year selected for this report is FY 2017 because of the available City financial reports. The “Debt Service Coverage” method is used in determining the revenue requirements. Components of the revenue requirement include:

- (a) Operation and Maintenance
- (b) Debt Service
- (c) Debt Service Coverage
- (d) Depreciation
- (e) Other Income

(a) Operation and Maintenance

The City maintains comprehensive annual financial records that include revenue, other income, and expenses. There is a total of twenty-six expense items, but none are allocated to the functional cost of service. For the purpose of this report, the expenses are allocated to three main categories: Administration, Water Treatment Plant, and Distribution. Staff from the City and Utility Management Group (UMG) assisted in the collection of data, and the allocation of cost to the categories of administration, water treatment plant and distribution. A percentage of cost for each line item was determined and allocated to each category, then for each category, a percentage of the cost was determined to be either fixed for a variable. **Figure 3** shows how the total cost of each category was determined.

Inside Water Operating & Maintenance Expense - 2017																				
2017	Total					Administration					Water Treatment Plant					Distribution				
	Cost	Admin	WTP	Dist.		Cost	Fixed	Variable	Fixed	Variable	Cost	Fixed	Variable	Fixed	Variable	Cost	Fixed	Variable	Fixed	Variable
Gasoline..	176,401	0%	10%	90%	100%	0	100%	0%	0	0	17,640	50%	50%	8,820	8,820	158,761	20%	80%	31,752	127,009
Bank Charges	5,209	100%	0%	0%	100%	5,209	100%	0%	5,209	0	0	0%	100%	0	0	0	0%	100%	0	0
Prov. For Bad Debt	8,962	100%	0%	0%	100%	8,962	100%	0%	8,962	0	0	0%	100%	0	0	0	0%	100%	0	0
Dues..	850	100%	0%	0%	100%	850	100%	0%	850	0	0	100%	0%	0	0	0	0%	100%	0	0
Freight/Postage..	3,076	100%	0%	0%	100%	3,076	100%	0%	3,076	0	0	0%	100%	0	0	0	0%	100%	0	0
Ins Vehicle..	2,547	0%	10%	90%	100%	0	100%	0%	0	0	255	100%	0%	255	0	2,292	100%	0%	2,292	0
Ins General Liability	31,359	10%	30%	60%	100%	3,136	100%	0%	3,136	0	9,408	100%	0%	9,408	0	18,815	100%	0%	18,815	0
Ins Other..	0	10%	30%	60%	100%	0	100%	0%	0	0	0	100%	0%	0	0	0	100%	0%	0	0
Office Supplies..	711	100%	0%	0%	100%	711	100%	0%	711	0	0	0%	100%	0	0	0	0%	100%	0	0
Public Works Water	1,221,201	5%	40%	55%	100%	61,060	100%	0%	61,060	0	488,481	5%	95%	24,424	464,057	671,661	5%	95%	33,583	638,078
Prof Service Other	777	100%	0%	0%	100%	777	100%	0%	777	0	0	50%	50%	0	0	0	50%	50%	0	0
UT Monthly Billing	2,526	100%	0%	0%	100%	2,526	100%	0%	2,526	0	0	0%	100%	0	0	0	0%	100%	0	0
UMG...Services	184,254	0%	40%	60%	100%	0	100%	0%	0	0	73,702	5%	95%	3,685	70,017	110,553	5%	95%	5,528	105,025
Rent-Easements..	376	100%	0%	0%	100%	376	100%	0%	376	0	0	0%	100%	0	0	0	0%	100%	0	0
Purchase Software..	211	100%	0%	0%	100%	211	100%	0%	211	0	0	0%	100%	0	0	0	0%	100%	0	0
Repairs & Maint	43,155	0%	0%	100%	100%	0	100%	0%	0	0	0	0%	100%	0	0	43,155	5%	95%	2,158	40,997
Repair & Maint Plant	2,984	0%	100%	0%	100%	0	100%	0%	0	0	2,984	0%	100%	0	2,984	0	0%	100%	0	0
Tele/Public Works	7,769	100%	0%	0%	100%	7,769	100%	0%	7,769	0	0	100%	0%	0	0	0	0%	100%	0	0
Electric..	300,992	0%	65%	35%	100%	0	100%	0%	0	0	195,645	0%	100%	0	195,645	105,347	0%	100%	0	105,347
City Utilities..	5,300	0%	100%	0%	100%	0	100%	0%	0	0	5,300	100%	0%	5,300	0	0	0%	100%	0	0
Workers Comp..	178	100%	0%	0%	100%	178	100%	0%	178	0	0	0%	100%	0	0	0	0%	100%	0	0
Salaries & Wages..	26,009	100%	0%	0%	100%	26,009	100%	0%	26,009	0	0	0%	100%	0	0	0	0%	100%	0	0
Payroll Tax..	1,990	100%	0%	0%	100%	1,990	100%	0%	1,990	0	0	0%	100%	0	0	0	0%	100%	0	0
Employee Benefit Ins	8,413	100%	0%	0%	100%	8,413	100%	0%	8,413	0	0	0%	100%	0	0	0	0%	100%	0	0
Pension Matching..	0	100%	0%	0%	100%	0	100%	0%	0	0	0	0%	100%	0	0	0	0%	100%	0	0
Unemployment Tax	31	100%	0%	0%	100%	31	100%	0%	31	0	0	0%	100%	0	0	0	0%	100%	0	0
Total	2,035,282					131,285			131,285	0	793,414			51,892	741,522	1,110,583			94,128	1,016,455

Figure 3

(b) Debt Service

Figure 4 is the inside water system debt service schedule.

Inside Water Debt Service												
Refinancing 2012C				2016 Loan				2018 Loan				
	Principal	Interest	Total		Principal	Interest	Total		Principal	Interest	Total	
2015	125,000	21,888	146,888	2015				2015				
2016	130,000	19,963	149,963	2016		11,085	11,085	2016				
2017	130,000	18,363	148,363	2017		56,988	56,988	2017				
2018	135,000	14,713	149,713	2018	38,800	56,551	95,351	2018		7,444	7,444	
2019	140,000	11,963	151,963	2019	39,600	55,670	95,270	2019	51,800	15,725	67,525	

Total			
	Principal	Interest	Total
2015	125,000	21,888	146,888
2016	130,000	31,048	161,048
2017	130,000	75,351	205,351
2018	173,800	78,708	252,508
2019	231,400	83,357	314,757

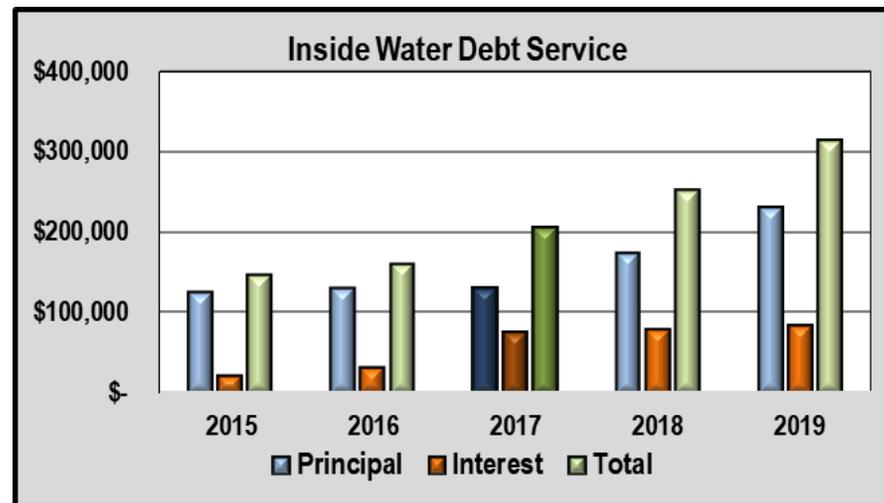


Figure 4

(c) Debt Service Coverage

The Debt Service Coverage, or DSC, is a measure of the cash flow available to pay current debt obligations. The coverage is the net operation income as a multiple of debt obligations due within one year, including interest and principal payments. A debt service coverage ratio is the ratio of the amount of cash available (income minus expenses) and the amount of combined interest and principal for the outstanding bonds. The DSC provides a useful indicator of financial strength. A low DSC could have a negative impact on the City's bond rating. The City's bond covenants state that the rates and charges shall be adequate to produce net revenues equal to at least 120% of the maximum annual debt service required for any fiscal year. The 120% is generally stated as a ratio of 1.20.

(d) Depreciation

Depreciation is defined as a reduction in the value of an asset with the passage of time, due to wear and tear. Although depreciation is listed as an expense, it is not paid out to anyone. Funding depreciation allows the City to accumulate cash for financing the replacement of depreciated assets. The City's inside water system depreciation is separated into four functionalities of operation; water treatment plant, water lines, booster stations, and water storage tanks.

(e) Other Income

Other income is a combination of fees, such as tap fees, penalties and other miscellaneous fees collected by the City. Generally, these fees are not directly related to the production and distribution of water.

Fixed and Variable Costs

There are two components of the City's water rate structure: a fixed cost and a variable cost. Fixed costs are those cost unrelated to the treatment and distribution of water. Variable costs are those associated directly or indirectly with the treatment and distribution of water. The fixed costs are generally used to determine a base amount to be used in the calculation of a minimum bill. The variable costs are used to determine a unit rate or a cost per 1,000 gallons. It is the variable rate for MWD that is to be determined by the Cost of Service Analysis.

Figure 5 shows the inside water revenue requirement.

Inside Water Revenue Requirement - 2017					
	<u>Cost</u>		<u>Fixed</u>		<u>Variable</u>
<u>Operation & Maintenance</u>					
Administration	\$131,285	100%	\$131,285	0%	\$0
Water Treatment Plant	\$793,414	7%	\$51,892	93%	\$741,522
Distribution System	\$1,110,583	8%	\$94,128	92%	\$1,016,455
Total Operation & Maintenance	\$2,035,282		\$277,305		\$1,757,978
Debt Service	\$205,351	0%	\$0	100%	\$205,351
Debt Service Coverage (20%)	\$41,070	0%	\$0	100%	\$41,070
<u>Depreciation</u>					
Water Treatment Plant	\$209,561	0%	\$0	100%	\$209,561
Water Lines	\$155,849	0%	\$0	100%	\$155,849
Booster Stations	\$11,839	0%	\$0	100%	\$11,839
Tanks	\$36,975	0%	\$0	100%	\$36,975
Total Depreciation	\$414,224				\$414,224
Other Income	(\$252,335)	100%	(\$252,335)	0%	\$0
Revenue Requirement	\$2,443,592		\$24,970		\$2,418,622

Figure 5

(2) Cost Allocation

The allocation of the variable operating cost is shown in **Figure 6**. The distribution system is broken down into seven areas of service. Allocation of these costs is calculated by applying percentages as determined by the City's staff and UMG staff. The percentages were then multiplied by the total cost to determine the amount allocated to each service.

Percentages of Cost Allocation - 2017 for Variable Operating Costs										
	Water Treatment	Booster Stations	Line Maint.	Tanks	Service Calls	Meters	Leak Detection	Testing	Total	
Water Treatment Plant	100%	0%	0%	0%	0%	0%	0%	0%	100%	
Distribution System	0%	20%	40%	5%	15%	5%	10%	5%	100%	
Cost Allocation - 2017 for Variable Operating Costs										
	Water Treatment	Booster Stations	Line Maint.	Tanks	Service Calls	Meters	Leak Detection	Testing	Total	Percent
Water Treatment Plant	\$ 727,948	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 727,948	41%
Distribution System	\$ -	\$ 205,729	\$ 411,458	\$ 51,432	\$ 154,297	\$ 51,432	\$ 102,864	\$ 51,432	\$ 1,028,645	59%
Total	\$ 727,948	\$ 205,729	\$ 411,458	\$ 51,432	\$ 154,297	\$ 51,432	\$ 102,864	\$ 51,432	\$ 1,756,593	100%

Figure 6

(3) Cost Distribution

MWD relies on the City's water treatment plant and City's complex distribution system for water service. The distribution of cost to MWD is generally based on the percentage of usage or demand by MWD. **Figure 7** shows the percentage of water sold to MWD and the percentage of revenue collected from MWD.

Inside Water Sold - 2017		
	Million Gallons	% of Total
MWD	463	50%
Other Inside City	467	50%
Total Inside Sold	930	100%

Inside Water Revenue - 2017		
	Revenue	% of Total
MWD	\$729,785	32%
Other Inside City	\$1,526,553	68%
Total Inside Revenue	\$2,256,339	100%

Figure 7

Figure 8 shows all the variable components of revenue requirement including water treatment, various distribution services, depreciation, debt, and DSC. A percentage of use is applied to each one of these to determine a cost for each component along with a unit cost per 1,000 gallons.

The water treatment plant, booster stations, and tanks are assigned a 50% usage by MWD because all the treatment plant, booster stations, and tanks are used to provide adequate service to MWD. All the City's water lines are not needed to serve MWD, however, most of it is as shown in **Figure 2**. The City's largest water demand is in the central part of the city which is relatively close to the water treatment plant. MWD's highest demands are much farther away from the water treatment plant and use a higher percentage of large diameter water lines such as 10-inch, 12-inch, and 16-inch. Based on **Figure 2**, it is estimated that 95% of City's water lines are used MWD. With MWD using 50% of the water sold to all inside customer, their percentage of cost for all services involving water lines would be 95% times 50%, or 48%. MWD should not pay for service calls or water quality testing, therefore the percentage of these services is 0%. The percentage of the cost of servicing meters is 7% based on the size of MWD's meters compared to all inside water meters.

Cost Distribution 2017 for Variable Costs															
	Water Treatment	Booster Stations	Line Main.	Tanks	Service Calls	Meters	Leak Detection	Testing	Deprec. WTP	Deprec. Lines	Deprec. Pump Sta	Deprec. Tanks	Debt	DSC	Total
Annual Cost	\$741,522	\$203,291	\$406,582	\$50,823	\$152,468	\$50,823	\$101,646	\$50,823	\$209,561	\$155,849	\$11,839	\$36,975	\$205,351	\$41,070	\$2,418,622
Percent Distribution for Variable Costs															
Account	Water Treatment	Booster Stations	Line Main.	Tanks	Service Calls	Meters	Leak Detection	Testing	WTP	Deprec. Lines	Deprec. Pump Sta	Deprec. Tanks	Debt	DSC	
MWD	50%	50%	48%	50%	0%	7%	48%	0%	50%	48%	50%	50%	50%	50%	
Cost Distribution for Variable Costs															
Account	Water Treatment	Booster Stations	Line Main.	Tanks	Service Calls	Meters	Leak Detection	Testing	WTP	Deprec. Lines	Deprec. Pump Sta	Deprec. Tanks	Debt	DSC	Total
MWD	\$369,485	\$101,296	\$193,127	\$25,324	\$0	\$3,799	\$48,282	\$0	\$104,420	\$74,808	\$5,919	\$18,487	\$102,322	\$20,464	\$1,067,733
Unit Cost Per 1,000 Gallons															
MWD	\$0.80	\$0.22	\$0.42	\$0.05	\$0.00	\$0.01	\$0.10	\$0.00	\$0.23	\$0.16	\$0.01	\$0.04	\$0.22	\$0.04	\$2.30

Figure 8

(4) Recommended Rate

Figure 9 is a summary of the MWD fair share of each component of the revenue requirement and Figure 10 shows an increase of \$0.72 per 1,000 gallons is needed. It is recommended to raise the current rate of \$1.58 per 1,000 gallons to \$2.30 per 1,000 gallons.

MWD Cost Summary				
	Total Variable	MWD Variable	MWD Percent Variable	MWD Cost per 1,000 Gallons
Administration	\$0	\$0	0%	\$0.00
Water Treatment Plant	\$741,522	\$369,485	50%	\$0.80
Distribution System	\$1,016,455	\$371,827	37%	\$0.80
Depreciation	\$414,224	\$203,634	49%	\$0.44
Debt	\$205,351	\$102,322	50%	\$0.22
Debt Service Coverage (20%)	\$41,070	\$20,464	50%	\$0.04
Other Income	\$0	\$0	0%	\$0.00
Total Revenue Requirement	\$2,418,622	\$1,067,733	44%	\$2.30

Figure 9

Rate Determination for Variable Costs						
Account	Revenue Paid	Current Rate Per 1,000 Gal.	Revenue Required	Required Rate Per 1,000 Gal.	Revenue Deficient	Increase Needed Per 1,000 Gal.
MWD	\$729,785	1.58	\$1,067,733	\$2.30	\$337,947	\$0.72

Figure 10

FOR Service to PSC Regulated Utilities
Community, Town or City

P.S.C. KY. NO. 1

4rd Revised SHEET NO. 1

CANCELLING P.S.C. KY. NO.

 SHEET NO.

City of Pikeville
(Name of Utility or City)

CONTENTS

RATES

Monthly Wholesale Water Rate

Mountain Water District:

First 28,000,000 gallons	\$64,400*	(I)
All over 28,000,000 gallons	\$2.30 per 1,000 gallons	(I)
Rate Case Expense Surcharge**	\$2,500 per month	(I)

** Pikeville proposes a surcharge to recover all expenses it may incur to participate in and defend its proposed rates in any Public Service Commission proceeding that is initiated to investigate the reasonableness of those rates. Pikeville proposes to recover the total amount of expenses associated with the increase in rates over a 36-month period. If no proceeding is established, Pikeville will not seek to recover any amount for Rate Case Expense Surcharge.

Southern Water and Sewer District

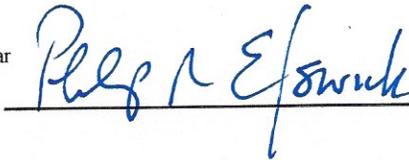
All usage \$2.25 per 1,000 gallons

* Minimum Bill for Mountain Water District: 28 million gallons at \$2.30 per 1,000 gallons.

DATE OF ISSUE February 21, 2019
Month / Date / Year

DATE EFFECTIVE April 5, 2019
Month / Date / Year

ISSUED BY Philip Elswick



TITLE City Manager

BY AUTHORITY OF ORDER OF THE PUBLIC SERVICE COMMISSION

IN CASE NO.

DATED