COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

PROPOSED ADJUSTMENT OF THE WHOLESALE WATER SERVICE RATES OF THE CITY OF PIKEVILLE MOUNTAIN WATER DISTRICT	)))	Case No. 2019-00080

MOUNTAIN WATER DISTRICT POST HEARING BRIEF

Mountain Water District, by and through counsel tenders the following post-hearing brief.

SUBMITTED BY:

John N. Hughes

John N. Hughes
ATTORNEY AT LAW
124 W. Todd St.
Frankfort, KY 40601
(502) 227-7270
jnhughes@johnnhughespsc.com

and

Daniel P. Stratton
STRATTON LAW FIRM P.S.C.
Post Office Box 1530
Pikeville, Kentucky 41502
Telephone: (606) 437-7800
Facsimile: (606) 437-7569
dan@strattonlaw.net

Attorneys for Mountain Water District

TABLE OF CONTENTS

I. BACKGROUND OF WATER PURCHASE CONTRACT RATE ADJUSTMENT

Mountain Water District purchases treated water from the city of Pikeville pursuant to a Water Purchase Contract last amended November 14, 2011. The relevant portion of that contract is Section 5: Rates:

> Seller agrees to pay purchaser not later than the 30th day of each month, for water delivered the preceding month in accordance with the following schedule of rates:
>
> a. A wholesale rate of $1.68 per one thousand (1,000) gallons of water for the first 28 million gallons per month.
>
> b. $1.30 per one thousand gallons (1,000) of water in excess of 28 million gallons per month.

The term of the contract is set forth in Section 6 of the contract:

> The rate schedule shall automatically extend to additional year to year term(s) at the end of the original 5 year term or any one year extension term unless the "SELLER" sends a certified letter of its intent to change the rate to "Purchaser" six (6) months prior to the end of the original five (5) year term or any extension term. If the "Purchaser" is not agreeable to the proposed rate change, it shall within 60 days of receipt of the "Seller's" certified letter send a rejection notice by certified mail to the "Seller" and thereafter the Parties shall begin good faith negotiations for a new rate schedule.
>
> If the Parties are unable to agree upon a new rate, then the Seller shall have prepared a cost of service study based on Public Service Commission requirements and submit its rate application proposal to the Public Service Commission or such other agency which at said time has statutory jurisdiction.

The initial notice from Pikeville to MWD of a proposed rate change was a letter dated June 25, 2018 from Pikeville's mayor proposing rate increase to $2.52 for first

28M gallons and $1.95 for water purchased in excess of 28M gallons. MWD response to PSC DR 1-4(1). That proposal was rejected by letter from MWD's counsel Dan Stratton dated July 26, 2019. MWD response PSC DR 1-4(2)

On August 16, 2018 in a letter from the Mayor to Stratton a "draft" undated cost study (COSS) for "wholesale" customers proposed a rate of $2.25/1000 gallons for MWD. MWD response PSC DR 1-1(b)(2).

On October 16, 2018, Pikeville sent MWD a proposal for a rate increase to $2.25 per 1000 gallons based on an undated "draft COSS". MWD response PSC DR 1-4(5). After the parties only meeting on December 16, 2018, the parties exchanged correspondence about the rate proposal until February 5, 2019 when Pikeville through its attorney informed MWD that the proposed one tier rate of $2.30 based on a COSS dated February 5, 2019 would be filed with the Commission unless MWD accepted the rate as proposed. February 5, 2019: Letter from Osterloh to Stratton proposing a rate of $2.30 based on a COSS dated February 5, 2019. MWD response PSC DR-1(2)(b).

MWD responded to that letter on February 13, 2019 indicating MWD's need for additional time to retain a consultant and review the COSS. MWD response PSC DR 1-4(11). On February 19, 2019 in a letter from Osterloh to Stratton, he stated Pikeville would file the proposed rate adjustment on February 21 with a rate of $2.30, plus a surcharge for rate case expenses and an effective date of April 5, 2019. MWD response to PSC DR 1-4(12). On February 21, 2019: Pikeville filed its rate application with the PSC based on COSS dated February 5, 2019.

Subsequent to the filing of the application, another revision to the COSS was submitted dated July 11, 2019, making it the fourth iteration of the COSS relied on by Pikeville for its rate adjustment. Each of the revisions was the result of MWD's identification of errors or defects in the studies, validating MWD's objection to the basis for the rate increase.

Throughout the process of discussions about the rate increase, MWD asserted several issues that affected the credibility of the cost studies Pikeville had provided to the District. These issues were acknowledged by Pikeville and resulted in the preparation of a second cost study. (Elswick Testimony, p. 4): "Mountain Water District identified certain concerns about the first cost – of – service study…Rather than fighting over the reasonableness of the rates…Pikeville requested RateStudies to complete another cost – of – service study…"

MWD found errors in that study and attempted to continue to negotiate an acceptable rate. However, as the correspondence from Stratton to the city's attorney indicate, the city was not agreeable to any rate less than the proposed $2.25. See April 19, 2019 letter from Stratton to Davis indicating Pikeville's unwillingness to negotiate a wholesale rate for MWD, MWD response PSC DR 1-4(19), and May 17, 2019 Stratton letter to Davis referencing Pikeville's refusal to negotiate a wholesale rate for MWD. MWD response PSC DR 1-4(25).

Pikeville's proposed rate change also includes a proposed modification of the 2011 contract. Pikeville proposes to remove the second-rate step for water purchases over 28 million gallons per month. MWD does not object to the single rate for all gallons purchased, provided the minimum purchase is removed. The proposed rate by Pikeville of $2.30 per 1000 gallons retains the minimum bill requirement of 28 million gallons, but eliminates the second-rate step, which has recognized the benefit to Pikeville of the additional water purchases by MWD. The elimination of the second-rate step obviates the need for the minimum purchase. Because the 28 million gallons was the trigger for the second step lower rate, without the second step that trigger is now unnecessary – Pikeville will bill all gallons at the same rate regardless of the amount of water purchased. Pikeville has presented no testimony or other evidence as to the continued need for or justification of the minimum purchase requirement. MWD purchased 457 million gallons during the test year, which far exceeds the minimum. Additionally, the ordinance passed by the Pikeville city commission on July 8, 2019 does not include the minimum purchase requirement. (Pikeville Supp. Response to PSC DR 1-25).

As a result of the city's termination of negotiations based on the cost of service study submitted to the Commission by letter dated February 20, 2019, MWD submitted a detailed analysis of the cost of service study to the Commission prepared by its expert witness, which exposed a number of critical errors in the study. MWD has raised numerous issues about the Pikeville COSS, which are explained in detail below.

II. BURDEN OF PROOF

"The burden of proof of showing that an increase of rate or charge is just and reasonable [is] upon the applicant utility." *Kentucky American Water Co. v. Commonwealth ex rel. Cowan, 847 S.W.2d 737, 741 (Ky. 1993)* . The application does not comply with the Commission's "known and measurable" standard for meeting the burden of proof. The data relied on by Pikeville is not verifiable or accurate. As the Commission stated in *Application of Madison County Utility District*, Case No. 2002-00184, Order dated January 27, 2003, p. 8:

> However, any adjustment to Madison's test-year expenses must be known and measurable. ... The Commission has found no evidence in the record definitive enough to find this adjustment known and measurable. It is therefore denied.

The burden is on the city to justify its allocations. It is not up to the Commission or MWD to formulate an allocation method. As Vice Chairman Cicero stated during the hearing, the burden is on Pikeville and without verification of the methodology, there is no way to allocate costs among the classes of users. (HEARING VIDEO 11:14:48). Because the city is regulated, it must conform its business practices to those of any other regulated company. It cannot escape the detailed review of its operations by contract. Conversely, the Commission is not obligated to modify its traditional review of expenses and allocations simply because an applicant has adopted practices that do not conform to traditional ratemaking. As the Court said in Simpson County, supra, at page 463: " ...by so contracting the City relinquishes the exemption and is rendered subject to PSC rates and service regulation." The Commission rejected similarly undocumented adjustments in The Adjustment of Rates of Harrison County RECC, Case No. 7944, Order dated February 20, 1981, p. 3. "The Commission is of the opinion that Applicant's adjustment is speculative in nature inasmuch as it is based on unofficial and uncertain information."

The Commission was more blunt in its rejection of a cost study that had many of the same defects as Pikeville's:

> The Commission finds the record to be devoid of any evidence to support the reliability of this study. Its sponsor was unable to explain why various inputs or allocation factors were used. He was unfamiliar with accepted authorities on rate design and the basic principles to develop a cost-of-service study. He did not collect the data used for the study nor was he able to explain how

> it was collected. Although his study made modifications to the cost-of-service study submitted by Commission Staff in Hardin District No. 1's previous rate case, he could not explain the rationale for such changes.
>
> None of Hardin District No. 1s other witnesses, furthermore, could explain the source of the data used in the cost-of-service study or why the Water District had ordered the study's preparer to use certain inputs and cost allocation factors.
>
> Utility rates should not be based on a hunch and a prayer. The proponent of rates should be able to explain how its rate proposal was derived. Hardin District No. 1 cannot. Unable to assess the accuracy or reliability of the cost-of-service study, the Commission has no choice but to disregard it. *Petition of Hardin County Water District No. 1*, Case No. 90-019, Order dated February 21, 1991, p. 3

Pikeville has not met its burden of proof for many of the same reasons. The COSS does not conform to the AWWA methodology. The information included in this case is unsubstantiated, inadequate and unverifiable. There is simply no way for the Staff to reconstruct the accounting records of the city and independently verify the data. It must accept without question the bulk of the expenses, the UMG contract fees, and rely on "discussions with Pikeville", assumptions and allocations, rather than actual expenses .

III. PIKEVILLE"S COSS DOES NOT CONFORM TO THE AWWA METHODOLOGY

The idea of cost-based rates is at the very core of a proper COSS. There were four COSS versions used in Pikeville's proposed rate to MWD. All four COSSs used the same test year, Fiscal Year 2017. And, although, errors were admitted by Pikeville in the third COSS, known and measurable changes from the test year were never identified and included in the revenue requirement. Additionally, between Version #3 and Version #4 the total inside city revenue requirement was reduced by $25,631 but the revenue required of MWD only decreased by $2,305 and, inexplicitly did not change the proposed rate. Revenue required from MWD in the 4 COSS versions varied $118,402 (11 percent) between the minimum and maximum, as shown below:

Version #1	16 August 2018	$950,553
Version #2	"draft" – undated	$949,331
Version #3	5 February 2019	$1,067,733
Version #4	11 July 2019	$1,065,428

As stated in AWWA M-54 (p.11), "Rates should be developed so as to assign cost responsibility to each individual customer served by the utility in a way that reflects the cost incurred by the utility in serving each customer." Similar wording is found in AWWA M-1 (p. 4; 6th Ed.). Mr. Petty's methodology lacks (a) functionalization (b) transparency and (c) generally accepted allocation methods. Further, errors and inconsistencies in the numbers and the inclusion of costs irrelevant to the wholesale service to MWD give no confidence in Mr. Petty's COSS. (Allen Direct Testimony, pp.2-3).

III(a) Functionality

The issue with lack of functionality is described on p 4 of Allen Direct Testimony: Sixty-nine (69) percent of all the expenses exists within two of Mr. Petty's 26-line item costs ("UMG…Services" and "Public Works Water"). Those two-line items carry no descriptive text. Mr. Petty could have achieved a level of functionalization using information in the general ledger to categorize the expenses, but his attempt at functionalization fails for a lack of functional categories consistent with AWWA guidelines. He should have assigned expenses shown in the ledger to functional categories as described by AWWA Manual M-1, 6th Ed. (page 60) and M-54, 2nd Ed. (page 21).

General ledger items cannot be reconciled with Mr. Petty's 26 expense items in Figure 3 largely because of the lump sums attributed to "UMG...Services" and "Public Works Water." There is virtually no transparency in Pikeville's revenue requirements. As Ms. Allen stated in response to the Chairman's question, to perform a valid COSS that is objective and verifiable, more detailed information than provided by Mr. Petty is needed. (HEARING VIDEO 2:10:00). The significance of this lack of transparency in the development of the COSS is described by Ms. Allen at the hearing. (HEARING VIDEO 2:02:00).

One of Mr. Petty's line items, "Repairs and Maint", is presumably where costs associated with fire protection and customer services are included—costs generally not relevant to wholesale customers - but, that cannot be determined with certainty; those costs may be in the "UMG...Services" or the "Public Works Water" line item. The lack of transparency makes the reviewing the COSS impossible. (HEARING VIDEO 2:00:10) Given the fact that the COSS steps build upon each other, the lack of functionalization leaves Pikeville's COSS without a foundation to substantiate the allocation and distribution steps.

III(b) Allocation

Functionalized rate base and expenses should be allocated to cost components. The allocation of functionalized costs allows the analyst to then equitably split those costs according to how the customer uses or benefits from that component. The Pikeville COSS does not properly allocate costs. An example from the Pikeville COSS is maintenance associated with the Bob Amos tank. The 100,000-gallon tank sits at approximately 1130 feet msl, fed by a booster station located on a single line feeding a recreational facility and a small number of residential customers. Based on WRIS mapping, the discharge side of the pump, which includes the tank, does not loop back into the Pikeville distribution system. The general ledger provided by Pikeville includes costs totaling almost $90,000 associated with "Bob Amos tank" in the detailed description. That cost is not distinguishable in Mr. Petty's 26-line items included in Figure 3 of his COSS. It is a significant cost and comparison of Mr. Petty's O&M and the test year audit O&M seem to indicate the $90,000 must be somewhere in Mr. Petty's 26 expenses. The $90,000 cost is not functionalized (tank maintenance) and because it is not assigned to tank maintenance, that cost has no verification to allow a determination that it should not be allocated as system-wide storage, but rather it exists as a cost to the customers who are served by the Bob Amos tank. The missed opportunity to properly allocate that cost leaves that cost in the common allocation that is shared by all customers, including wholesale customers. Clearly, this results in an assignment of cost that is not fair and equitable; it is, rather, a cost subsidy by the MWD to Pikeville's retail customers. The first two steps of the COS process are the means by which analysts properly assign costs. (Allen Direct Testimony, p. 5)

III(c) Distribution

Distribution is the third step in AWWA's COSS process description. Staying with the Bob Amos tank example, had the $90,000 cost been properly functionalized (tank maintenance) and allocated into cost components (storage, fire protection) it could then be distributed to the customers who benefitted or caused the cost. (Allen Direct Testimony, p.5).

Because the $90,000 was not functionalized, it is not a distinct line item, so it could not be assigned to the tank maintenance function where it belonged. If it cannot be assigned to the proper function, then it could not be properly allocated to distribution storage and fire protection or assigned to the appropriate customer who should bear the cost associated with that allocation. Because the $90,000 was not equitably distributed as benefitting only residential and other direct city customers, it was left in the common allocation and MWD is being forced to pay for costs not relevant to serving potable water to wholesale customers. (Allen Direct Testimony, p. 6).

IV. IMPROPER COSS ALLOCATION FACTORS

IV (a) Debt

Pikeville has allocated an unjustified portion of debt to MWD. Only 70.5 percent of GO Bond Series 2012C could possibly pertain to MWD service. The Water and Sewer Revenue Bonds Series 2016A relates to sewer as per the bond description supplied by Pikeville. Additionally, the GO Bond Series 2017 is for the City's Hambley Athletic Complex, the wireless metering system, and sewer treatment. There is not sufficient description of the debt but giving Pikeville every benefit of the doubt still reduces the applicable debt service from $205,351 (Figure 5 of the COSS) to $104,596

(70.5% of $148,363). It also reduces the debt service coverage applicable to MWD from $41,070 (Figure 5) to $20,919 (20% of $104,596). (Allen Direct Testimony, p. 12-13).

Mr. Petty also incorrectly applies the debt service coverage requirement by simply multiplying the debt service by the required ratio, 1.20. Pikeville is to have net revenues of at least 1.20 times the maximum principal and interest due in any given fiscal year to be eligible to issue parity bonds. "Net revenues" is defined as gross income, including, but not limited to, income from investments, connection and disconnection charges, less all operating expenses exclusive of depreciation. This is far different from simply multiplying debt service by 20 percent. If one reviews Pikeville's annual audit for the fiscal year ending 30 June 2017, gross income for inside water is $2,459,159 and operating expenses, less depreciation is $2,020,299. Allowing for 2018 inside water debt service (because the difference between 2017 and 2018 is known and measurable) of $252,508 (inside water debt service from Figure 4 of Version #4 COSS) the existing debt service coverage ratio is 1.74. Therefore, no allowance for debt service coverage is necessary.

IV (b) Distribution Facilities

Mr. Petty uses a 7 percent allocation factor for the cost labeled "meters". The label is not descriptive enough. If it means replacing and repairing meters, the factor should be zero percent as Section 6 of the Water Purchase Contract is clear that the Seller (Pikeville) bears that cost. If he means customer accounting or service, the factor is satisfactory.

Mr. Petty also uses a 50 percent usage factor which should not be used as a catch-all allocation to avoid the effort of determining the relevance of each tank or booster to the wholesale rate. Regardless, there are inaccuracies in his calculation of the ratio. The numerator is not consistent with meter readings supplied by Pikeville and the denominator should include total sales from every customer served by the treatment plant.

Mr. Petty uses a 48 percent factor (95% x 50%) for allocating costs associated with lines and leak detection. In response to Question 10 of MWD's initial data request, Pikeville reveals the determination of the factor was "the product of a collaborative effort." Pikeville refers to what it calls the "collaborative method" when asked to explain several questionable allocations. The collaborative method uses the conjectures of individuals associated with the Pikeville water utility, who are without a hydraulic model, have no mapping to illustrate the various pressure zones within the system, do not know the overflow elevations of half their tanks, and either do not have or will not provide information on the piping configurations of their booster pumping stations. The lack of this basic system information makes it impossible to verify the 48 percent factor or any aspect of the components contributing to that factor. From an engineering perspective, it is inconceivable that this basic information is not available. (Allen Direct Testimony, p. 8).

The COSS includes no allocation to account for diurnal demands on retail and wholesale customers. Mr. Petty simply uses a ratio of gallons purchased by MWD to total gallons sold (and only gallons sold to inside city customers) to allocate costs. The ratio of gallons purchased to total gallons sold might be acceptable for allocation of volumetric costs, but such a simplistic approach to allocate all distribution costs indicates a failure to grasp the concept of cost-based rates. (Allen Direct Testimony p.

9 -10). The most obvious defect in this approach is the irrational assignment of rates to the various customer groups – inside, outside and wholesale. MWD's rates are higher than the inside and outside customers' rates. (HEARING VIDEO 10:17:10)

Even more irrational is the fact that MWD's rates are higher than the outside city rates. The city acknowledges that the reason for an outside city rate is to recover higher operating costs, primarily associated with the acquisition of Sandy Valley Water District. (HEARING VIDEO 10:17:09) Given the higher outside city operating costs, how can MWD's rates be higher than the outside customers?

IV (c) Booster Pumps and Storage Tanks

The lack of verifiable information related to the water distribution system can be linked to the lack of a hydraulic analysis of the Pikeville system. While the city's witnesses seemed confident that the 95% allocation of lines to MWD service is correct, it conflicts with the reality of the data provided. Mr. Petty maintains that because MWD purchases 50 percent of the water sold to inside city customers (he disregards the impact of outside city customers purchasing water from the same treatment works and distribution system), MWD should pay for 50 percent of the costs associated with every booster station. Pikeville has no pressure zone data to confirm this assumption. Pikeville response to MWD DR 1-17. These booster pumps are shown on Pikeville's hearing exhibit 1.

Rural water utilities and especially those in Eastern Kentucky serve customers at elevations that can range hundreds of feet. It is not economically nor technically feasible to maintain a single pressure zone, that is, a hydraulic grade line that provides the pressure necessary to serve the utility customers. Utilities maintain a primary system to serve a base of customers that is usually the majority of the customers, or at least a majority of the demand. The customers at higher elevations cannot be served by the same hydraulic grade line that serves the customers in the primary (lower elevation) area. It is necessary to mechanically raise the hydraulic grade line to serve higher elevation customers. Booster pump stations with accompanying tanks are typically used to accomplish the task.

Running the pumps and maintaining the pump stations and tanks come with a considerable amount of cost. For this reason, engineers isolate the elevated pressure zones. Without the isolation, the higher-grade line would extend to serve areas for which the higher pressure was not needed. The result would be nearly constant pumping to the higher-pressure zone and unnecessary costs.

Assuming the engineering design for Pikeville was adequate and therefore, the elevated pressure zones were isolated, it can also be assumed those facilities (lines, pumps, tanks) in the isolated pressure zones were not meant to serve any customer not located in the respective service area.

Some of the tanks Pikeville claims are integral to service to MWD serve small isolated pressure zones. Without the benefit of a hydraulic model or pressure zone maps to indicate otherwise, it seems reasonable that Bob Amos, Harold's Branch, Fox Croft, and Chloe Ridge tanks are not relevant to service to MWD. Several others are questionable as well. Overflow elevations are not known for over half (10 of the 18) of the tanks listed, leading one to question the criticality of the associated storage to serving customers other than those in the immediate vicinity of the tank. Pikeville could not produce either a hydraulic model or a map of pressure zones. Additionally, it did not provide information on the presence or absence of check valves in pumping station piping. Further, Pikeville did not provide information on all tanks and booster stations. To not have the benefit of a hydraulic model, access to pressure zone maps and the knowledge of tank overflows and pump station piping details, would make operating a complex distribution system like Pikeville's extremely difficult. (Allen Direct Testimony p. 18-20).

The factual distortion caused by the lack of hydraulic data is highlighted by the conflicting information given by Mr. Potter about the "grid system" and the actual data reflected in the monthly master meter data. Mr. Potter testified that all of the Pikeville system is used by MWD, yet the chart below shows that 73% of the water sold to MWD flows through only two master meters – Town Mountain and South Mayo Trail (referred to as Indian Hills MM on Pikeville hearing Exhibit 1).

Master Meter Readings for Billing to MWD
Compiled from the Submittal by Pikeville in their Response to MWD's 1st Request, Question 9

month	master meter readings in 1000 gallons									totals
	Town Mtn	Chloe Rd	Island Creek	Coon Branch	S Mayo Trail	Hoopwood	Trailer Park	Hurricane	Cowpen	
Jul-16	18,386	2,236	2,285	103	7,600	100	177	1,880	2,293	35,060
Aug-16	22,652	3,190	3,928	119	11,934	105	200	1,942	2,812	46,882
Sep-16	22,687	2,931	3,939	124	11,092	89	166	1,776	2,502	45,306
Oct-16	18,940	2,318	1,389	122	7,451	79	149	1,454	2,494	34,396
Nov-16	17,989	2,173	2,235	153	9,374	82	155	1,604	2,485	36,250
Dec-16	20,373	2,508	3,836	186	1,701	92	192	1,919	2,643	33,450
Jan-17	19,843	2,103	3,693	200	8,344	77	180	1,598	2,862	38,900
Feb-17	15,697	1,967	2,909	196	6,918	71	163	1,513	2,458	31,892
Mar-17	19,271	2,203	3,681	242	9,521	78	177	1,731	2,771	39,675
Apr-17	16,224	1,667	3,938	200	8,477	78	147	1,436	2,260	34,427
May-17	17,291	1,803	3,724	153	9,566	111	183	1,877	2,680	37,388
Jun-17	19,635	2,092	3,608	133	10,887	120	243	2,320	3,928	42,966
FY17 total	228,988	27,191	39,165	1,931	102,865	1,082	2,132	21,050	32,188	456,592
% of total (rounded)	50.2%	6.0%	8.6%	0.4%	22.5%	0.2%	0.5%	4.6%	7.0%	100%

IV (d) Distribution and Transmission Mains

Pikeville assigns 95% of the inside city distribution and transmission facilities to service to MWD. MWD purchases its water from the same treatment plant as inside city customers. The cost to maintain the inside city facilities and to treat water for both inside city customers and MWD is the same. There is no cost to the city to serve MWD once the water passes through the master meters. Yet, given the use of the same facilities and the same water from the same treatment plant, MWD's rates are higher than the inside customer retail rates. (HEARING VIDEO 10:17:00) Mr. Petty acknowledges that MWD (and other large customers) is subsidizing the retail customers when he discusses the impact of a wholesale rate on the larger Pikeville customers – their rate would go down due to the volumetric purchases. (HEARING VIDEO 11:55:15)

While Pikeville has used the "collaborative method" to hypothesize the allocation of facilities to MWD through the "GRID" as described by Mr. Potter, (HEARING VIDEO 11:07:22) there are two recognized ways of estimating the percentage of lines used in the delivery of water to a wholesale customer. One is the "inch-mile method". The other is the "Distribution Main Analysis". The goal of calculating the inch-mile ratio is to determine what percentage of the Seller's overall distribution system is used in providing water to the wholesale customer.

Pikeville's concept of joint use conflicts with the Commission's traditional use of that term as reflecting that actual facilities associated with each customer class's service. Thus, if joint use means anything, it must be something other than the entire distribution and transmission system, otherwise, the concept is unnecessary to calculate a rate because there would be no distinction between jointly used facilities and all facilities of the supplier's system. Using simple footage (miles) of line is not accurate since wholesale customers tend to use only the larger diameter lines. By weighting the footage, i.e., multiplying the diameter in inches by the length in miles, a more equitable ratio, and therefore, percentage, is achieved.

The numerator in the calculation is the weighted length, or inch-miles, that the wholesale customer uses. Lines that are clearly customer distribution lines and those, because of isolated pressure zones, were never intended to serve the wholesale customer are not appropriate for inclusion in the numerator.

Because the resultant ratio is to estimate the percentage of the Seller's lines that are used, the denominator must include all lines, regardless of size, again weighted by diameter. To illustrate the critical nature of this, consider the calculation of the inch-mile ratio by Mr. Petty:

> - The footage of line that is smaller diameter and therefore used only by retail/direct customers is significantly less than what it was in PSC Case 2002-00022, resulting in the denominator being artificially low, thereby increasing the resultant ratio;
> - The PSC Order in 2002-00022 acknowledged a 49.46 inch-mile credit for MWD lines used by Pikeville. The piping scenario is still in use and still being used by Pikeville;
> - As previously discussed, the line footage totals submitted by Pikeville as a response to PSC's 1st Request, Q 13, and PSC's 3rd Request, Q 18, compared to the 2002 totals reveal unlikely results. Even after the numbers were revised in the response to the 3rd Request, footage for 2-inch, 3-inch, 8-inch and 16-inch line decreased from 2002 to 2019. Regardless of the effect on the inch-mile calculation, the unrealistic reduction in footage casts doubt on the 2019 numbers;
> - Building upon the bullet above, further inconsistencies arise when considering the result of PSC Case 2006-00327 where Pikeville assumed a portion of Sandy Valley's distribution system. Additionally, note the footages associated with the Marion's Branch project. The table below summarizes the inconsistencies and reports the length of line in miles:

☐

line diameter	Pikeville's 2002 numbers	acquisition of Sandy Valley	Marion's Branch project	minimum expected total mileage	Pikeville's 2019 numbers	difference between expected and 2019
1-inch	0	0.16	0	0.16	0	-0.16
2-inch	2.73	2.9	0	5.63	2.6	-3.03
3-inch	2.42	0.15	0	2.57	0	-2.57
4-inch	3.18	7.1	0	10.28	3.9	-6.38
6-inch	23.03	17.3	0	40.33	27.9	-12.43
8-inch	24.02	2.0	1.63	27.65	20.1	-7.55
10-inch	6.29	0	2.84	9.13	11.6	2.47
12-inch	4.39	8.7	0	13.09	17.9	4.81
16-inch	2.06	0	0	2.06	1.6	-0.46

- ☐ Comparing the totals in the last line of the table supplied by Mr. Petty and Mr. Potter in Pikeville's Response to PSC's 3rd Request, Q 18b, the 38.2 miles of line acquired from Sandy Valley (Joint Applicants' Response to Commission's Order of October 6, 2006) cannot be found, mathematically.

- ☐ Further adding to the conflicting information about the miles of pipe Pikeville has is the reference in the July 2007 Amendment One and Appendix B to the UMG contract. The Amendment states that Pikeville has 77 miles of water mains subsequent to the acquisition of Sandy Valley Water District. Mr. Elswick confirmed at the hearing that the 77 miles includes SVWD, which cannot be reconciled with any of the other numbers provided by Pikeville. (HEARING VIDEO:10:27:15)

In light of many inconsistencies and questionable numbers, and the city's acknowledgement that it cannot reconcile the discrepancies in the historical and WRIS inch-mile data, (Pikeville response MWD DR 1-29) reliance upon the WRIS data and application of the AWWA minimum system theory returns the most equitable ratio (0.40) of line used to provide service to MWD. The results of the calculations of this methodology are provided in MWD response to PSC DR 2-3(b).

One of the recurring points Pikeville has made to justify its proposed rate is that the expenses of UMG are comparable to other water utilities. Without citing any authority that such comparative ratemaking has been adopted by the Commission, Pikeville asserts that the expenses should be deemed reasonable simply based on the similarity of expenses of the cited utilities. The argument is not valid. Rates are based on known and measurable expenses and revenues of the utility proposing the rates. Pikeville's argument fails to consider several critical factors. First, the expenses have not been and cannot be verified. Second, the allocation of the expenses cannot be tracked through the financial records of the city. Finally, the allocation methodology of the expenses cannot be validated. Even if the expenses of the city are equal to other utilities' expenses, there can be no determination of whether those expenses are legitimate or legitimately allocated to MWD. They remain unknown and unmeasurable. Without this information, there is no basis for a comparison of rates.

V. LACK OF VERIFIED INFORMATION

V (a) UMG CONTRACT ISSUES

There are three significant issues with the UMG contract as it relates to this rate application. First, there is no evidence as to the reasonableness of the contract. Pikeville has not provided any evidence that the contract was bid or otherwise cost effective. Pikeville's Response to PSC DR2-21 states that it does not have any memoranda, correspondence or other documents showing that Pikeville officials analyzed, reviewed or discussed contract negotiations with UMG. Its only justification for the contract is in its response to PSC DR 3-17: "Management decisions are presumed to be reasonable. West Ohio Gas Co. v. Ohio Pub. Util. Comm'n, 294 U.S. 63 (1935); Pa. Publ. Util. Comm'n v. Phila. Elec. Co., 561 A.2d 1224 (Pa. 1989). Pikeville's contract with UMG was executed by independent parties in an arm's length transaction. The fees associated with UMG's contract are, therefore, reasonable unless proven otherwise."

This attempt at *ipso facto* validation of the contract ignores the holding in *City of Franklin v. Simpson County Water District*, Case No. 92-084 (Ky. PSC Jan. 18, 1996): "KRS 278.200, by requiring the Commission to hold a hearing on any proposed change in contract rate, implies that such changes are not presumptively valid and reasonable, but that their reasonableness must be adequately demonstrated." Because the contract is an integral part of the rate, its reasonableness is critical to any finding about the reasonableness of the rate.

Apparently, Pikeville believes that MWD and the Commission must prove the presumptively reasonable fees are unreasonable – a difficult if not impossible proposition given there are no memoranda, correspondence, electronic mail messages or other documents in which Pikeville officials analyzed, reviewed, or discussed the contract with UMG. Pikeville response to PSC DR 3-21 confirms the lack of verifiable information:

> Refer to Pikeville's responses to Staffs Second Request, Items 25, and 26. In Case No. 2002-00022, the Commission placed Pikeville on notice that in future rate proceedings the Commission would more closely scrutinize the management companies' direct expenses and would expect Pikeville to provide independent supporting documentation of all UMG costs. Provide the information as requested on an aggregate basis not by the individual employee.
>
> Response: Pikeville has communicated with UMG regarding this request. UMG has not provided the requested information to Pikeville, and therefore, Pikeville cannot provide the requested information. Pikeville maintains that its operational expenses, including the amount of expense from the UMG contract that it allocates to the water system, are reasonable.

Pikeville simply supplies a list of revenue/expenses for several regulated water systems, which have no correlation or relevance to the expenses billed to Pikeville by UMG.

There is no evidence supporting the reasonableness of the expenses and associated profit allocated to MWD are reasonable. The City of Pikeville objected to a request by both MWD and the Commission for UMG's profit and loss and audited financial statements. Pikeville responded that UMG's profit and loss is not relevant to the determination of whether Pikeville's expenses are reasonable. Pikeville attempted to circumvent this issue by providing a letter from UMG objecting to the release of the information. Pikeville Response to PSC DR 2-24; Response to MWD Dr 1-52; 1-53. It similarly objected to other questions about UMG's expenses as not relevant to the reasonableness of Pikeville's expenses. "The City of Pikeville objects to this request, as UMG's expenses are not relevant to the determination of whether Pikeville's expenses are reasonable" See Pikeville responses to PSC DR2-25 and DR 2-26, and DR 2-27.

Additionally, even the information about UMG expenses is unaudited. (HEARING VIDEO 10:09:40). UMG simply bills Pikeville. Pikeville unquestionably accepts annual contract adjustments including a CPI increase or changes to its operations. (HEARING VIDEO 10:10:10; 10:10:49). There is no evidence as to the methodology of allocating the expenses associated with each of the functions performed by UMG for Pikeville as confirmed in Pikeville response to PSC DR3-16:

> Refer to Pikeville's responses to Staffs Second Request, Items 25, and 26. In Case No. 2002-00022, the Commission placed Pikeville on notice that in future rate proceedings the Commission would more closely scrutinize the management companies' direct expenses and would expect Pikeville to provide independent supporting documentation of all UMG costs. Provide the information as requested on an aggregate basis not by the individual employee.

> Response: Pikeville has communicated with UMG regarding this request. **UMG has not provided the requested information to Pikeville, and therefore, Pikeville cannot provide the requested information.** Pikeville maintains that its operational expenses, including the amount of expense from the UMG contract that it allocates to the water system, are reasonable. The reasonableness of the expenses related to the UMG contract is demonstrated by the analysis provided in Pikeville's Response to Item 17 below.

Pikeville subsequently filed a supplemental response to several of the Commission's and MWD's data requests breaking down UMG's expenses and profit margin for water service. (Pikeville response PSC DR 2-24, 25,26,27 and MWD DR 1-52,53). These could not be verified as no supporting documentation was provided. UMG was paid $1,420,844.00 for expenses and $250,000 profit totaling $1,670884.00. This is a profit of 17.6% over unverified expenses. UMG refused to provide audited financials, but as a service company its return on investment must far exceed 17.6%. The primary basis for the rate increase is the expenses associated with the contract service of UMG. If verification of expenses is an essential element of the rate study, the city fails . The largest expense item in the cost study is the contract fee paid to UMG, which should be subject to Commission review. Yet, given UMG's and Pikeville's refusal to provide an audited financial statement or information about the profit associated with the contract, the Commission is expected to accept at face value. It cannot be verified at any level. If this is an acceptable means of operating a utility, then any utility could simply contract all its service for a lump annual sum and never need to justify any expense item. Verification becomes moot and the Commission's oversight is relegated to a determination of the reasonableness of the total level of operating expense, but not the level of any specific expense category. While this arrangement would simplify the utility's filing requirements, it would stifle the Commission's traditional review of known and measurable revenues and expenses. A similar situation was addressed by the

Commission and upheld by the Court in South Central Bell telephone Co. v. Public Service Commission and Office of Attorney General, et al. v. South Central Bell Telephone Company, Ky. , 702 S . W. 2d 447 (1985) . In that case, the Commission was faced with the review of license contracts executed by Bell. The Commission required Bell to provide "studies and analysis of the specific contract costs that show tangible evidence of both the necessity to the Kentucky ratepayer of the services provided under the license contract and the reasonableness and tangible cost benefit analysis of these individual expenses ..." The same type of evidence should be required of the city to justify its contract with UMG.

Unlike a traditionally regulated utility, which must justify and verify all expenses, the city expects to circumvent that review by contracting the operation of the water system to UMG. There are two problems with this issue. First, allowing the city to circumvent regulatory oversight places it in a category distinct from other utilities, which must prove their expenses. There is no statutory authority to create an exception for the city. Second, it violates KRS Chapter 278 and Simpson County Water District v. City of Franklin, Ky. , 872 S . W. 2d 460 (1994) . That case requires that a city be regulated as to rates and service just as any other utility. Without supporting data, UMG's expenses cannot be verified. The Commission must not accept them without question. No other utility could successfully make that assertion, neither should the city.

V (b) Depreciation

Depreciation is also an issue that Pikeville has failed to justify. There is no specific analysis or study showing Pikeville's Capitalization policy or service lives. According to Pikeville's auditors, they review annual capitalization and depreciation to complete the audit, but there is no specific analysis or study. Pikeville response PSC DR 3-9. Mr. Petty conceded to Vice Chairman Cicero's questions about the allocation of depreciation that because of the lack of information about total plant depreciation, the annual amount allocated to MWD cannot be substantiated. (HEARING VIDEO 1:42:53)

The calculation of depreciation is not in accordance with Commission policy of using the NARUC mid-point as the useful life. Pikeville uses 40 years, and less for some, for useful life of pipe. Using NARUC's mid-point (62.5) reduces depreciation of lines by 34 percent. Other capital items have useful lives different from NARUC as well, but a total recalculation was not possible because the capital item description was not adequate to determine the appropriate NARUC category. For example, the first entry under "Water Plant" in the inside city depreciation schedule supplied by Pikeville in response to Question 9 of PSC's first data request is described as "Raw Water Intake Fac." If that means the concrete structure housing the motor for the raw water pump, then NARUC's mid-point is a service life of 37.5 years. If it refers to the motor, pump, shaft and impellers, NARUC assigns a service life of 20 years.

Another issue relates to the amount of depreciable assets attributable to service to MWD, which is significantly less than the COSS allocates. Regardless of the method of estimating the percentage of lines used to provide service to MWD, all the distribution lines are not applicable to MWD, nor are all the tanks and pumps. Additionally, hydrants are included in the "lines" section and because they are a component of the city's public fire protection system. Clearly, they are not relevant. Finally, according to the depreciation schedules submitted in response to PSC's initial data request, the outside city customers are not charged any depreciation on the treatment plant, tanks, or pump stations. (Allen Direct Testimony pp. 13-14).

In Pikeville's Response to MWD's DR 1-33, Ms. Taylor states, "Outside water reimburses inside water for plant depreciation based upon a percentage of consumption." She refers us to account 210.10.451.03 for outside water's contribution. The amount shown in account 210.10.451.03 was $47,926.60. Petty assigns $414,224 in depreciation as a total variable cost in Figure 9 of the COSS. That number matches the total inside water depreciation submitted by Pikeville in Response to PSC DR 1-9. The outside water depreciation spreadsheet submitted by Pikeville in that same response shows no plant depreciation; that is verified in Pikeville's Response to MWD's 1st Request, Q 33. So, outside water is paying $47,926.60 in plant depreciation, yet no credit is reflected in Figure 9 of the COSS.

According to the depreciation schedules submitted in response to PSC's initial data request, only 5 lines, 5 pieces of equipment and 1 vehicle are assigned to outside city customers' depreciation despite outside city sale making up over 20 percent of Pikeville's direct sales. Pikeville states in response to MWD's initial data request that city customers "reimburses inside water for plant depreciation based on a percentage of consumption" (Pikeville response MWD DR 1-33). Yet, no credit is given against the depreciation Pikeville charged inside city customers and the respective percentage charged to MWD. Principles of cost-based rates dictate that utilities charge all customers their fair share of all costs, including depreciation. Pikeville claims outside city customers made a payment to satisfy their obligation to the system depreciation cost but the depreciation schedule for inside customers does not indicate a credit against plant, tanks, or booster station depreciation. (Allen Direct Testimony, p.20).

Pikeville's claimed depreciation expense is unreasonable and in conflict with the NARUC guidelines that have historically been utilized by the Commission in setting depreciation rates. Pikeville did not prepare a depreciation study in preparation for the filing of this case. Based on the analysis provided by MWD and using the NARUC useful asset life for the Pikeville facilities, the proposed plant depreciation should be reduced to \$161,635 (\$209,561 - \$47,926). Using 62.5 for useful life of pipe reduces the line depreciation to \$115,847 (\$155,849 - \$40,002).

The impact of these errors in the COSS is summarized in the table below. The table shows Mr. Petty's COSS figures adjusted to reflect the corrected allocations Ms. Allen has made to conform the results to the most accurate data available.

V (c) Other Unverified Expenses

There are numerous discrepancies, some of which have already discussed. First, the test period operating expenses in the COSS differ from the operating expenses (less depreciation) in the Fiscal Year 2017 audit. Second, the debt service information includes bonds that are not relevant to the water system and bonds that pertain to the water utility but are irrelevant to the delivery and sale of wholesale water. The COSS description of "other income" includes tap fees, penalties and other miscellaneous fees" but fails to include the interest earned on interest bearing CDs listed in the audit. There is no correlation between the general ledger and the 26-line items Mr. Petty lists in Figure 3 of the COSS. The variable costs in Figure 3 are different from the variable costs in Figure 6. Finally, a summation of the meter readings provided by Pikeville indicate MWD purchased 456,592,000 gallons from Pikeville, rather than the 463,000,000 in the COSS. (Pikeville response MWD DR 1-9) – see table of purchases on page 17.)

Several items are omitted from the calculations because they are "a relatively small amount..." There may be other "small amounts" in the COSS if the general ledger entries could be reconciled with the contents of the two-line items in Figure 3 that make up 69 percent of Pikeville's water operating and maintenance costs. (Allen Direct Testimony p. 13)

Because the city does not have adequate records, many of the expenses were estimated or unknown. The "collaborative" method" – apparently a group of UMG and city employees formulating after the fact justifications for expense allocations - is the primary justification for virtually all city and UMG expenses and allocations. Yet, as Mr. Petty acknowledged, no notes, memos or other documentation was kept verifying the collaborations. (HEARING VIDEO 1:46:14). In contrast, Ms. Allen testifies that it is typical to have documentation of the allocation methodology used in a COSS. (HEARING VIDEO 2:06:19). A partial list of estimates, guesses or unknown items referenced in Pikeville's data responses shows the scope of the deficiency of known or verifiable information used to attempt to substantiate the proposed rate:

Pikeville Responses to PSC:

> PSC DR 2-14: water infrastructure used by MWD uses an estimated 95% of the inside city water infrastructure.
>
> PSC DR 2-15: MWD uses estimated 95% of inside water infrastructure
>
> PSC DR 2-21: Pikeville does not have any documents responsive to this request (UMG contract negotiations)
>
> PSC Supplemental Response DR 1-8: Pikeville does not have internal memorandums, policy statements, correspondence and documents related to the allocation of joint and shared facilities
>
> PSC Supplemental DR 1-9 There is no specific analysis or study showing Pikeville's Capitalization policy or service lives.
>
> PSC 3-16: Pikeville has communicated with UMG regarding this request. UMG has not provided the requested information to Pikeville, and therefore, Pikeville cannot provide the requested information.

Pikeville Responses to MWD:

1-10: Allocation percentages in the cost of service study was the product of a "collaborative effort". Mr. Petty was provided information related to the system by numerous individuals.

1-14: Pikeville does not have a hydraulic model of its system.

1-17: There is not a pressure zone map of the Pikeville system.

1-18: Percentage of costs for line maintenance ....is the produce of collaborative process.

1-19: Pikeville does not separate costs between distribution and transmission

1-20 Provide maintenance records for each tank separately. A. Any costs for lines and tank can be found in 2017 general ledger...

1-21 Provide total storage volume per tank, overflow elevations and operating range. A. See response to Item 14 above (which says there is no hydraulic model)

1-23 Provide meters inventory by size, type of customers. A. Pikeville's billing system does not track meters by inventory, size and classification of customer.

1-29 (a) Pikeville does not know why the number of miles for certain sizes of lines decreased. ...Pikeville "believes" it is using the most accurate data.

(c) Mr. Petty "consulted" with the system operators

(e) Mr. Petty relied on operational knowledge of the system to determine the Pikeville water utility lines used by MWD. ... The use of the percentage of water sold appeared to be the most practical way of approaching this project.

1-32: Historically and based on anecdotal evidence, service lives of water lines... It is reasonable to set the depreciation ..based on payback of financing.

1-37: Provide justification for the percentage of cost allocated for meters: A The amount...is a product of the collaborative process..

> 1-38: The amount for costs associated with leak detection…is a product of the collaborative process…
>
> 1-48: Peak day or peak hours for Pikeville's residential, commercial and industrial customers cannot be confirmed. The peak day and peak hour for MWD also cannot be confirmed.
>
> 1-57: Provide the evidence and documentation used as the basis for the 7% fixed versus 93% variable split for costs related to the water treatment system. A. …These percentages are a product of a collaborative process…
>
> 1-58: These percentages are the product of the collaborative process…
>
> 1-61: The allocation factors were determined by the collaborative process…
>
> 1-62: …Pikeville does not have the data that would supports (sic) the difference between transmission mains and distribution lines.
>
> 1-66: Each item was discussed and a percentage determined based on staff knowledge of each category, which is the collaborative process…
>
> 1-70: The assignment of allocated percentages of those amounts was based on the collaborative process…

These are examples of the lack of direct information that the city used to develop its cost study or the assumptions that it had to make in the absence of complete, accurate data. Other data was predicated on "information provided" by the city. Numerous examples of this are found in the exhibits to the COSS. There are many references to these discussions as being the sole basis for assigning costs. None of these discussions is documented. (HEARING VIDEO 11:46:15).

The table below identifies the adjustments MWD believes are necessary to reflect the errors in the COSS presented by Pikeville.

	water treatment	booster stations	line maint	tanks	service calls	meters	leak detection	testing	deprec WTP	deprec lines	deprec pump sta	deprec tanks	debt	DSC	total	1000 gallons % rate adj
annual cost COSS	$727,948	$205,729	$411,458	$51,432	$154,297	$51,432	$102,864	$51,432	$209,561	$155,849	$11,839	$36,975	$205,351	$41,070	$2,417,237	
COSS factors[1]	50%	50%	48%	50%	0%	7%	48%	0%	50%	48%	50%	50%	50%	50%		
COSS MWD cost	$362,722	$102,511	$195,443	$25,628	$0	$3,844	$48,861	$0	$104,420	$74,808	$5,919	$18,487	$102,322	$20,464	$1,065,428	463,300
this is the rate proposed by Pikeville in Mr. Petty's July 2019 COSS															$2.30	36.9%
adj to annual cost	$0	-$89,909	$0	$0	$0	$0	$0	$0	-$47,926	-$40,002	$0	$0	$0	$0		
revised annual cost	$727,948	$115,820	$411,458	$51,432	$154,297	$51,432	$102,864	$51,432	$161,635	$115,847	$11,839	$36,975	$201,048	$0		
using COSS factor	49.83%	49.83%	47.50%	49.83%	0.00%	7.48%	47.50%	0.00%	49.83%	48.00%	50.00%	50.00%	49.83%	49.83%		
prior to adjust factors	$362,721	$57,711	$195,443	$25,627	$0	$3,845	$48,861	$0	$80,539	$55,607	$5,919	$18,487	$201,048	$0	$1,055,809	463,300
revised factors	46.9%	46.9%	18.8%	46.9%	0.0%	7.5%	18.8%	0.0%	46.9%	18.8%	46.9%	46.9%	18.8%	18.8%		
adjusted cost	$341,408	$54,320	$77,354	$24,122	$0	$3,845	$19,338	$0	$75,807	$21,779	$5,552	$17,341	$37,797	$0	$678,663	456,592
adjusted rate based on corrections to the applicable costs to MWD and the distribution factors presented in Pikeville's COSS															$1.49	-11.5%

[1]In Figure 8 of the COSS, Mr. Petty uses factors of 50% and 48% for capacity and distribution lines, respectively. I have reprinted the costs he shows in Figure 8 in the first three lines of data.

The adjustment for disallowing the tank maintenance for Harold's Branch and Bob Amos tanks has to be subtracted from "booster stations" because the "collaboration method" Mr. Petty used to categorize the distribution expenses did not put as much money in the "tanks" item as the general ledger indicates Pikeville spent on tank maintenance. I took it from booster stations because the same allocation factor is used on booster stations as tanks.

The reduction for "deprec lines" reflects the difference, on the depreciation schedule, between using 62.5 and 40 for service life for lines ($117,756 - $77,754). Note that the depreciation shown in the COSS for lines includes equipment and vehicles on the depreciation schedule. (Pikeville's response to PSC's 1st Request) The reduction in "deprec WTP" reflects a credit equal to the outside water contribution to plant depreciation ($47,926) as shown in acct 210.10.451.03 as per Ms. Taylor in Pikeville's response to MWD's 1st Request, Q 33.

Pikeville's response to PSC's 1st Request, Q 5 provides bond descriptions. Together with minutes from MWD (MWD's response to Pikeville's PHDR) one could make the case that MWD should participate in the Marion's Branch debt service, even though MWD will likely never use the capital constructed for the industrial park. Additionally, in the utility basis, pro forma adjustments are allowed and the 2018 principal and interest is known and measurable. Therefore, we are substituting 2018 P&I for the 2012 and 2016 bonds (the 2018 loan is not applicable to MWD and only 70.6% (at best) of the 2012 loan). We then apply a 18.8% pipeline transmission factor (40% minimum system theory multiplied by the 46.9% capacity factor) to the entire debt service.

Applying the debt service coverage ratio method in revenue requirements, total revenues ($2,459,159 from FY17 Audit) minus O&M less depreciation ($2,020,299), divided by debt service ($245,064), FY18 from Petty's Figure 4, gives 1.79 for the existing coverage ratio. Note that, in the 2018 COSS, Mr. Petty acknowledges that Pikeville had more than enough debt service coverage in the test year, without a rate increase. Note total debt service is used for the DSC ratio calculation, not merely MWD's portion.

The adjustment in the capacity factor (Petty's 50% factor) is calculated by using the actual gallons purchased by MWD (from Pikeville's meter readings - Pikeville's response to MWD 1st Request, Q 9) divided by total gallons sold (taken from the average daily sales multiplied by 365 - Pikeville's response to MWD 1st Request, Q 5) rather than just water sold to inside city customers. (456,592,000 / 973,385,000)

456,592 (1000 gallons) is the corrected volume of water purchased by MWD in the test year. The correction reflects the corrected amount purchased for December 2016 as indicated on the master meter reaings supplied by Pikeville rather than the amount in the COSS. (Pikeville's response to MWD's 1st Request, Q 9)

The AWWA distribution main analysis (minimum system theory) returns a capacity component (factor) of 40%. That, multiplied by the adjusted capacity factor (0.469) results in a revised factor for distribution lines of 0.188 (18.8%). Granted, this revised factor should be applied to the total water utility costs as it is calculated on the total utility line footage; however, total water utility costs could not be calculated based on the information provided in the COSS.

VI. RATE CASE EXPENSE

Pikeville initially assigned all rate case expenses associated with the proposed rates, including those related to the retail customers to MWD. (HEARING VIDEO 10:12:10).

> A utility may properly recover reasonable rate case expenses as a cost of doing business. The Commission has generally permitted rate recovery of a reasonable level of rate case expenses but has disallowed such expenses when a utility has failed to provide adequate documentary evidence of the incurrence of the expense. The Commission has also disallowed such expenses as unreasonable when related to a poorly or improperly prepared rate application and in cases where the utility failed to justify the high level of expenses for relatively simple alternative rate filings. Case No. 9127, *Application of Sargent and Sturgeon Builders, Inc., Gardenside Subdivision Sewer Division, for a Rate Adjustment Pursuant to the Alternative Rate Filing for Small Utilities* (Ky. PSC Mar. 25, 1985).

In this case, Pikeville seeks to recover the total expense due for its legal representation and expert witness. Mr. Elswick acknowledges that all such expenses have been allocated to MWD. (HEARING VIDEO 10:12:16). Yet, as the entries from Pikeville's response to PSC DR 2-34 show, costs not specifically identified or related to MWD are included in the proposed surcharge. For example:

RateStudies Invoices:

October 4, 2017: $9,000 due for preparing Rate Study for Pikeville, KY. Original Fee of $18,000:

November 15, 2017: $7,200 due for Rate Study for Pikeville. Original fee $18,000.

January 18, 2018: $2,000 due on $2,500 original fee for rate study for Pikeville KY. (No description of the nature of this fee to distinguish it from the $18,000 original fee)

January 18, 2018: $1,800 due for Rate Study for Pikeville, KY . Original fee $18,000.

October 3, 2018: $6,000 due on fee of $7,500 for "Stand – Alone COSS for MWD and Southern Water District.

Osterloh fees:

9/7/18: Prepare for meeting with Southern WD

9/10/18: Meeting with Southern WD; Draft various documents

9/11/18 Communication w/Buddy Petty re: COSS (presumably the August 16, 2018: COSS for "Water and Wastewater Rates and Cost of Service Analysis for Wholesale Customers".

9/12: Draft documents for Southern WD rate increase

9/13 Letter to PSC (presumably related to Southern WD tariff)

9/27: Review of COSS (predates February 5, 2019 COSS used for MWD rate filing).

10/02: Phone to Daniel Hinton (PSC) for matters related to Southern WD tariff

10/11: Communication w/Daniel Hinton (presumably related to Southern WD)

Additionally, the city used the same COSS's to adjust the rates for inside retail customers, outside retail customers and Southern Water District wholesale rates. Those expense are embedded in the invoices provided and cannot be distinctly identified. Yet, it is undisputed that none of the costs associated with those rate changes are allocated to those customers – all are allocated exclusively to MWD.

In *Proposed Adjustment of Wholesale Water Rates of the city of Greensburg*, Case No. 2009-00428, August 6, 2010, p. 6, the Commission recognized the need to allocate the rate case expenses among all customer classes:

> The usefulness of any rate study is not limited to a particular customer class. Because the wholesale rate study identifies the costs and revenues derived from each class of Greensburg's customers, it is also a useful tool in reviewing existing retail rates and developing new rates that may better reflect the cost of service. Accordingly, the Commission finds that only a portion of the expenses of the wholesale rate study should be allocated to Green-Taylor and that the remaining portion should be allocated to Greensburg's retail customers. In

> determining the portion of the expenses related to the wholesale rate study, the Commission has previously used an allocation factor that is based upon each class's percentage of the city's total revenue requirement.

An additional issue is present in this case – the inordinate amount of time MWD has had to spend dealing with multiple COSS's with various defects and the associated time related to getting information supporting the assumptions, allocations and verification of data. Given the generalized lack of verifiable data provided by Pikeville – primarily the "collaborative effort" responses to many of the questions, MWD has been unable to resolve many of the issue it has raised related to the COSS's. Had Pikeville provided a reasonable study with adequate supporting documentation, this matter could have been resolved much sooner and much more economically. MWD should not have to subsidize the inadequate effort of the city to present a rate case to the Commission and, therefore, its expenses should not be reimbursed by MWD customers.

Even if the Commission finds Pikeville's rate case surcharge reasonable, it should allocate a portion of that cost to the other Pikeville customer classes. Additionally, given the effort required by MWD to expose the flaws in the COSS's, all of the MWD's rate case expenses should be offset against the city's surcharge.

If any of the rate case expense surcharge is allowed, it should be amortized over five years, not three. The wholesale water contract among Pikeville and MWD provides that any rate increase shall remain in effect for five years. See November 11, 2011, Wholesale Water Contract, page 6. The recovery of the expense should be consistent with the term specified in the contract.

Pikeville's application in this case has flaws identified throughout this proceeding: the lack of verified documentation of expenses, lack of system operational information, defective COSS. MWD should not have to bear the expense of litigating these flaws. Pikeville as a regulated water utility has some minimum obligation to conform its records and operations to the requirements of the PSC. Its failure to do so, should not necessitate an unreasonable financial burden on MWD.

VII. CONCLUSION

The city of Pikeville has failed to meet its burden of proof, has failed to meet the standard of known and measurable expenses and revenue, has failed to present verifiable evidence of its proposed adjustments, has failed to submit a cost of service study conforming to acceptable AWWA or PSC standards after four attempts.

Yet, in spite of its complete failure to present a reasonable application for review, it is seeking to recover unjustified expenses associated with this case as well as the expenses associated with the increases to inside and outside retail customers as well as Southern Water District rates. Both the rate increase and the rate surcharge should be rejected.

SUBMITTED BY:
John N. Hughes

John N. Hughes
124 W. Todd St.
Frankfort, KY 40601
502 227 7270
jnhughes@johnnhughespsc.com

and

Daniel P. Stratton
Stratton Law Firm PSC
Post Office Box 1530
Pikeville, Kentucky 41502
Telephone: (606) 437-7800
Facsimile: (606) 437-7569
dan@strattonlaw.net

Attorneys for Mountain
Water District

Certification:

I certify that the electronic filing is a complete and accurate copy of the original documents to be filed in this matter, which will be filed within two days of this submission and that there are currently no parties in this proceeding that the Commission has excused from participation by electronic means

John N. Hughes