### COMMONWEALTH OF KENTUCKY

#### BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

# APPLICATION OF FOUNTAIN RUN WATER<br/>DISTRICT #1 FOR RATE ADJUSTMENT)CASE NO.<br/>2018-00205PURSUANT TO 807 KAR 5:076)

#### NOTICE OF FILING OF STAFF REPORT

Notice is hereby given that, in accordance with the Commission's Order of July 9, 2018, the attached report containing the findings of Commission Staff (Staff) regarding the Applicant's proposed rate adjustment has been filed in the record of the above-styled proceeding. Pursuant to the Commission's July 9, 2018 Order, Fountain Run Water District #1 is required to file written comments regarding the findings of Staff no later than 14 days from the date of entry of this Staff Report.

R. Pinson

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

DATED OCT 0 1 2018

cc: Parties of Record

#### STAFF REPORT

#### ON

#### FOUNTAIN RUN WATER DISTRICT #1

#### CASE NO. 2018-00205

Fountain Run Water District #1 (Fountain Run District #1), a water district organized pursuant to KRS Chapter 74, provides water service to approximately 516 customers,<sup>1</sup> residing in Allen, Barren, and Monroe County, Kentucky.<sup>2</sup> On June 19, 2018, Fountain Run District #1 tendered its application (Application) to the Commission requesting to adjust its water rates pursuant to 807 KAR 5:076, and it was considered filed as of that date. To ensure the orderly review of the Application, the Commission established a procedural schedule by Order dated July 9, 2018.

To comply with the requirements of 807 KAR 5:076, Section 9,<sup>3</sup> Fountain Run District #1 based its requested rates on a historic test period that coincides with the reporting period shown in its most recent Annual Report on file with the Commission, the calendar year ended December 31, 2017.

Using its pro forma test-year operations, Fountain Run District #1 determined that it could justify a revenue increase of \$74,735.72, or 32.47 percent, as shown in the table below.<sup>4</sup> Although the utility may request an increase of 32.47 percent, Fountain Run

<sup>&</sup>lt;sup>1</sup> Annual Report of Fountain Run Water District #1 to the Public Service Commission for the Calendar Year Ended December 31, 2017 (2017 Water Annual Report) at 38.

<sup>&</sup>lt;sup>2</sup> 2017 Water Annual Report at 12.

<sup>&</sup>lt;sup>3</sup> The reasonableness of the proposed rates shall be determined using a 12-month historical test period, adjusted for known and measureable changes, that coincides with the reporting period of the applicant's annual report for the immediate past year.

<sup>&</sup>lt;sup>4</sup> Application, Revenue Requirement Calculation-Debt Service Coverage Method.

District #1 is only requesting a 20 percent increase. The rates requested by Fountain Run District #1 would increase the monthly bill of a typical residential customer using 4,000 gallons per month by \$5.68, from \$28.40 to \$34.08, or 20.00 percent.

|   | 1000 00000     | Fountain Run<br>District          |  |  |  |
|---|----------------|-----------------------------------|--|--|--|
| Pro Forma Operating Expenses<br>Plus: Average Annual Debt Service<br>Depreciation Reserve Payment | \$             | 273,439<br>39,996<br>7,999        |  |  |  |
| Overall Revenue Requirement<br>Less: Other Operating Revenue<br>Rental Income<br>Interest Income  |                | 321,434<br>0<br>(15,680)<br>(859) |  |  |  |
| Revenue Required from Rates<br>Less: Normalized Revenues from Water Sales                         | 1 <del>1</del> | 304,895<br>(230,159)              |  |  |  |
| Required Revenue Increase/(Decrease)<br>Percentage Increase                                       | \$             | 74,736<br>32.47%                  |  |  |  |

To determine the reasonableness of the rates requested by Fountain Run District #1, Staff performed a limited financial review of Fountain Run District #1'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 material. Insignificant and immaterial discrepancies were not necessarily pursued or addressed.

Staff's findings are summarized in this report. Travis Leach and Ariel Miller reviewed the calculation of Fountain Run District #1's Overall Revenue Requirement.

Sam Reid and Sarah Jankowski reviewed Fountain Run District #1's reported revenues and rate design.

#### SUMMARY OF FINDINGS

1. <u>Overall Revenue Requirement and Required Revenue Increase</u>. By applying the Debt Service Coverage (DSC) Method, as generally accepted by the Commission, Staff found Fountain Run District #1's Overall Revenue Requirement to be \$327,500. A revenue increase of \$74,272, or 32.27 percent, is necessary to generate the Overall Revenue Requirement.

2. <u>Water Sales and Cost-of-Service Study (COSS)</u>. Fountain Run District #1 proposed to increase its current water service rates by approximately 20 percent. Fountain Run District #1 also requested Staff to perform a COSS during the staff report phase of the ARF process that will reduce the number of steps in the current rate structure and establish monthly minimum bill amounts for the various meter sizes used to serve the customers of the district.<sup>5</sup>

Commission Staff performed a COSS for the operations of Fountain Run District #1, appended as Attachment A. The study was performed following the guidelines and procedures recommended by the American Water Works Association (AWWA) in its Water Rates Manual M-1. The COSS analyzed the utility's expenses and allocated these expenses according to three classifications for its retail operations: (1) Supply and Treatment (Commodity); (2) Transmission and Distribution (Demand); and (3) Customer. The Commodity costs are those costs that vary directly with the quantity of water provided to the customer such as chemicals, purchased water, and purchased power. Demand

<sup>&</sup>lt;sup>5</sup> Application at 1.

costs are those associated with providing the facilities to meet the peak demands placed on the system such as transmission and distribution costs. Customer costs are those costs associated with serving the customer regardless of the amount of water used, such as meter reading and billing.

The Allocation of Operation and Maintenance Expense sheet, page 3 of Attachment A, sets out the allocation of Operation and Maintenance expenses to the functional cost components. Commission Staff utilized information obtained through the utility's application, its 2017 PSC Annual Report, and the field review to allocate these costs. Administrative and general expenses are allocated to the cost components based on the subtotal allocated percentages.

The rates set forth in Attachment B to this report are based upon the COSS and will produce revenues from water sales sufficient to meet the \$304,431 revenue requirement determined by staff in this report. A comparison of monthly charges for various usage levels is provided for each meter size. As a result of the Staff COSS, the proposed rates will have differing impacts on the average monthly bill for each Fountain Run District #1 rate class.

Fountain Run District #1 proposed to increase water rates to its customers by approximately twenty percent to recover \$276,231.84 in revenues from water sales.<sup>6</sup> The rates set forth in Attachment C to this report are based upon Staff's COSS and will produce revenues from water sales sufficient to meet the \$276,231.84 revenue requirement proposed by Fountain Run District #1.

<sup>&</sup>lt;sup>6</sup> Application Exhibit 1, Customer Notice of Proposed Rate Adjustment.

The 32.27 percent increase in revenue requirement, as determined by Staff, could potentially place a significant hardship on Fountain Run District #1's customers. A phased-in approach increase to rates can ease the impact on customers but still allow the utility to meet its financial obligations. The Commission has previously accepted increases in rates using a phased-in approach.<sup>7</sup>

Following a phased-in approach, the rates set forth in Attachment C will become effective at the conclusion of this case and represent a 20 percent increase in the revenue requirement. The rates set forth in Attachment B will become effective one year from the date of the final Order in this case and represent full implementation of the staff determined 32.27 percent revenue requirement increase.

3. <u>Rate Design</u>. Fountain Run District #1's current rate design is a five-step declining block rate design for all customers. The rates consist of a minimum bill, which includes a fixed volume of 2,000 gallons and then four usage blocks with a declining rate per 1,000 gallons for each usage block. Fountain Run District #1 customers are predominately residential customers, who are served by 5/8 X 3/4-inch size meters. Fountain Run District #1's commercial customers are served by 1-inch and 2-inch meters. Different meter sizes may place different demands on the water system. Therefore, Staff has distinguished the customer classes by meter size and developed the rates for 5/8 X 3/4-inch, 1-inch and 2-inch meters using equivalent meter factors set out in the AWWA Manual M-1 to determine the fixed volume of water to be included in the minimum bills for each meter size used to serve Fountain Run District #1 customers.<sup>8</sup>

<sup>&</sup>lt;sup>7</sup> Case No. 2018-00117, *Application of Ledbetter Water District for an Alternative Rate Adjustment* (Ky. PSC September 10, 2018).

<sup>&</sup>lt;sup>8</sup> Principles of Water Rates, Fees, and Charges, AWWA Manual M1, Fifth Edition at 202.

## PRO FORMA OPERATING STATEMENT

Fountain Run District #1's Pro Forma Operating Statement for its water division for

the test year ended December 31, 2017, as determined by Staff, appears below:

| Staff's Pro Forma Income Statement - Water Division |          |           |      |          |      |             |  |  |  |
|---|----------|-----------|------|----------|------|-------------|--|--|--|
|   | 201      | Pro Forma |      |          |      |             |  |  |  |
|   | Annual   | Report    | Adju | ustments | Ref. | Operations  |  |  |  |
| Operating Revenues:                                 |          |           |      |          |      |             |  |  |  |
| Metered Water Sales                                 | \$ 23    | 2,846     | \$   | (2,687)  | (A)  | \$230,159   |  |  |  |
| Misc Service Revenues                               |          | 8,784     |      | (2,254)  | (B)  | 6,530       |  |  |  |
| Total Operating Revenues                            | 24       | 1,630     |      | (4,941)  |      | 236,689     |  |  |  |
| Operating Expenses:                                 |          |           |      |          |      |             |  |  |  |
| Operation & Maintenance:                            |          |           |      |          |      |             |  |  |  |
| Salaries & Wages - Employees                        | 9        | 6,197     |      |          |      | 96,197      |  |  |  |
| Salaries & Wages - Commissioners                    |          | 6,000     |      |          |      | 6,000       |  |  |  |
| Purchased Water                                     | 7        | 9,235     |      |          |      | 79,235      |  |  |  |
| Purchased Power                                     |          | 4,179     |      |          |      | 4,179       |  |  |  |
| Materials and Supplies                              |          | 6,093     |      | (3,580)  | (B)  | 2,513       |  |  |  |
| Contractual Services - Acct                         |          | 7,804     |      |          |      | 7,804       |  |  |  |
| Water Testing                                       |          | 2,532     |      |          |      | 2,532       |  |  |  |
| Transportation Expenses                             |          | 1,299     |      |          |      | 1,299       |  |  |  |
| Insurance   | 1        | 1,932     |      |          |      | 11,932      |  |  |  |
| Miscellaneous Expenses                              |          | 4,882     |      |          |      | 4,882       |  |  |  |
| Total Operation & Maintenance                       | 22       | 0,153     |      | (3,580)  |      | 216,573     |  |  |  |
| Depreciation  | 4        | 4,631     |      | 10,853   | (C)  |             |  |  |  |
|   |          |           |      | 89       | (B)  | 55,573      |  |  |  |
| Taxes Other Than Income                             |          | 8,655     |      | (2,020)  | (D)  | 7,359       |  |  |  |
|   | <u> </u> |           |      | 724      | (E)  |             |  |  |  |
| Utility Operating Expenses                          | 27       | 3,439     |      | 6,066    |      | 279,505     |  |  |  |
| Net Utility Operating Income                        | \$ (3    | 81,809)   | \$   | (11,007) |      | \$ (42,816) |  |  |  |

1. <u>Billing Analysis Adjustment.</u> Fountain Run District #1 provided a billing analysis, which is based on the water usage and water sales revenue for the entire 12-month test year, with its application.

Staff has reviewed Fountain Run District #1's billing analysis provided in the Application and finds that the water sales revenues determined by the billing analysis of \$230,159 for all customers is an accurate representation of normalized test-year revenue from water sales; therefore, staff has decreased water sales revenue by \$2,687.

2. <u>Tap Fees</u>. In the test year, Fountain Run District #1 collected water tapon fees in the amount of \$2,254, which were included in Miscellaneous Service Revenues. Likewise, the expenses associated with the water tap-ons were included in operating expenses in the amount of \$3,580. Staff reduced Fountain Run District #1's Miscellaneous Service Revenue by \$2,254 and Materials and Supplies by \$3,580 to remove these items from pro forma operations. Additionally, Staff increased Depreciation by \$89 to reflect the associated depreciation expense for the meters and meter installations placed into service.<sup>9</sup>

3. <u>Depreciation</u>. The Commission has historically relied upon the report published in 1979 by the National Association of Regulatory Utility Commissioners (NARUC) titled Depreciation Practices for Small Water Utilities (NARUC Study). When no evidence exists to support a specific life that is inside or outside the NARUC ranges,

| Test Year Water Tap Expenses | \$ | 3,580 |
|------------------------------|----|-------|
| Divide by: 40 Years          | 5) | 40    |
| Adjustment                   | \$ | 89    |

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the Commission has historically used the mid-point of the NARUC ranges to depreciate the utility plant. In following with the Commission's historical practice of using the midpoint of the NARUC ranges to calculate depreciation, Staff finds that Fountain Run District #1's test year depreciation expense of \$44,631 should be increased by \$10,853 to reflect the following:

a. Modifying depreciable lives of several plant assets, as shown below.

|                  |          | Current: |          |      |     |            | Pro Forma: |    |            |     |         |
|------------------|----------|----------|----------|------|-----|------------|------------|----|------------|-----|---------|
|                  | Date In  |          | Original |      | Dep | oreciation |            | De | preciation |     |         |
| Asset Account    | Service  |          | Cost     | Life | E   | xpense     | Life       | E  | xpense     | Dif | ference |
| Telemetry System | 7/1/2010 | \$       | 88,097   | 25   | \$  | 3,524      | 10         | \$ | 8,810      | \$  | 5,286   |
| Telemetry System | 4/1/2011 |          | 2,201    | 25   |     | 88         | 10         |    | 220        |     | 132     |
| New Tank         | 1/1/2010 |          | 680,645  | 62.5 |     | 10,890     | 45         |    | 15,125     |     | 4,235   |

Pro Forma Adjustment \$ 9,653

b. Modifying the depreciable lives currently assigned to Meters and

Structures and Improvements to 40 and 37.5 years, respectively, as shown below.

|                             | Current: |    |          |         |     | Pro Forma: |      |     |            |      |        |
|-----------------------------|----------|----|----------|---------|-----|------------|------|-----|------------|------|--------|
|                             | Date in  |    | Original |         | Dep | reciation  |      | Dep | preciation |      |        |
| Asset Account               | Service  |    | Cost     | Life    | E   | xpense     | Life | E   | xpense     | Diff | erence |
| Meters                      | Various  | \$ | 184,916  | Various | \$  | 4,122      | 40   | \$  | 4,623      | \$   | 501    |
| Structures and Improvements | Various  |    | 113,718  | Various |     | 2,333      | 37.5 |     | 3,032      |      | 699    |

Pro Forma Adjustment \$ 1,200

4. <u>Taxes Other Than Income</u>. In the test year, Fountain Run District #1 reported Taxes Other Than Income of \$8,655. Upon review, Staff determined this amount was overstated by \$2,020. Accordingly, Staff reduced Fountain Run District #1's Taxes Other Than Income by the same amount, to \$6,635.

5. <u>FICA</u>. As discussed in Item (D), Staff determined that Fountain Run District #1's Taxes Other Than Income was \$6,635. Staff also found that Fountain Run District #1's Taxes Other Than Income account did not accurately reflect the level of -8-Staff Report Case No. 2018-00205 FICA taxes owed on Salaries and Wages paid to the district's employees during the test year. As calculated below, Staff determined that test-year FICA taxes should be increased by \$724.

| Test Year Wages<br>Times: 7.65 Percent FICA Rate               | \$ 9 | 96,197<br>7.65%  |
|--|------|------------------|
| Total Pro Forma Payroll Taxes<br>Less: Test Year Payroll Taxes |      | 7,359<br>(6,635) |
| Payroll Tax Adjustment   | \$   | 724              |

#### 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>10</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 Fountain Run District #1's and Staff's calculations of the Overall Revenue Requirement and Revenue Increase using the DSC method is shown below.

<sup>&</sup>lt;sup>10</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).

Notably, Fountain Run District #1 did not include its Other Operating Revenue in its calculation of revenue requirement included in the Application.<sup>11</sup>

|  | Fountain Run<br>District | Staff      |
|--|--------------------------|------------|
| Pro Forma Operating Expenses               | \$ 273,439               | \$ 279,505 |
| Plus: Average Annual Debt Service          | 39,996                   | 39,996     |
| Depreciation Reserve Payment               | 7,999                    | 7,999      |
| Overall Revenue Requirement                | 321,434                  | 327,500    |
| Less: Other Operating Revenue              | 0                        | (6,530)    |
| Rental Income                              | (15,680)                 | (15,680)   |
| Interest Income                            | (859)                    | (859)      |
| Revenue Required from Rates                | 304,895                  | 304,431    |
| Less: Normalized Revenues from Water Sales | (230,159)                | (230,159)  |
| Required Revenue Increase/(Decrease)       | \$ 74,736                | \$ 74,272  |
| Percentage Increase                        | 32.47%                   | 32.27%     |

1. <u>Average Annual Principal and Interest Payments</u>. Fountain Run District #1 has two outstanding long-term debts, both payable to the U.S. Department of Agriculture, acting through Rural Development (RD). In its Application, Fountain Run District #1 requested recovery of the three-year average principal and interest payments due in calendar years 2018 through 2020. Staff agrees that the \$39,996 requested by Fountain Run District #1 represents, in all material respects, the average annual debt payments that will be made in each year that the water rates approved by the Commission in this proceeding will be in effect.

2. <u>Additional Working Capital</u>. The DSC method, as historically applied by the Commission, includes an allowance for additional working capital that is equal to the

<sup>&</sup>lt;sup>11</sup> Application, Revenue Requirement Calculation-Debt Service Coverage Method.

minimum net revenues required by a district's lenders that are above its average annual debt payments. Fountain Run District #1 calculated its additional working capital to be \$7,999. Staff agrees with Fountain Run District #1's calculation, therefore, Staff has included Fountain Run District #1's calculation of additional working capital in its revenue requirement.

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#### Signatures:

Prepared by: Travis Leach Financial Analyst, Water and Sewer Revenue Requirements Branch Division of Financial Analysis

Ariel Uiller

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

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

Prepared by: Sarah Jankowski Rate Analyst, Electric and Gas Rate Design Branch Division of Financial Analysis

## ATTACHMENT A

## ATTACHMENT TO A STAFF REPORT OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 2018-00205 DATED OCT 0 1 2018

|                                      | Allocation of Plant | Value     |             |           |  |  |  |  |
|--------------------------------------|---------------------|-----------|-------------|-----------|--|--|--|--|
| Fountain Run Water District          |                     |           |             |           |  |  |  |  |
|                                      | Total               | Commodity | Demand      | Customer  |  |  |  |  |
| Organization                         | \$ 50,000           |           | \$ 50,000   |           |  |  |  |  |
| Land & Land Rights                   | 28,948              |           | 28,948      |           |  |  |  |  |
| Structures and Improvements          | 113,718             |           | 113,718     |           |  |  |  |  |
| Pumping Equipment                    | 99,326              |           | 99,326      |           |  |  |  |  |
| Distribution Reservoirs & Standpipes | 820,651             |           | 820,651     |           |  |  |  |  |
| Transmission & Distribution Mains    | 857,995             |           | 857,995     |           |  |  |  |  |
| Services                             | 38,638              |           |             | 38,638    |  |  |  |  |
| Meters & Meter Installations         | 184,916             |           |             | 184,916   |  |  |  |  |
| Subtotal                             | \$2,194,192         |           | \$1,970,638 | \$223,554 |  |  |  |  |
| Hydrants                             | \$11,289            |           | \$10,138    | \$1,151   |  |  |  |  |
| Other Plant and Misc. Equipment      | 96,028              |           | \$86,233    | \$9,795   |  |  |  |  |
| Office Furniture & Equipment         | 8,265               |           | 7,422       | 843       |  |  |  |  |
| Transportation Equipment             | 26,513              |           | 23,809      | 2,704     |  |  |  |  |
| Tools, Shop & Garage Equipment       | 8,383               |           | 7,528       | 855       |  |  |  |  |
| Subtotal                             | \$150,478           |           | \$135,130   | \$15,348  |  |  |  |  |
| Total                                | \$2,344,670         |           | \$2,105,768 | \$238,902 |  |  |  |  |
| Allocation Percentages               | 100%                |           | 89.8%       | 10.2%     |  |  |  |  |

Source: PSC Annual Report 2017 at 22

|                                       | Allocation of | Depreciation |           |           |  |  |  |  |  |
|---------------------------------------|---------------|--------------|-----------|-----------|--|--|--|--|--|
| Fountain Run Water District           |               |              |           |           |  |  |  |  |  |
|                                       | Total         | Commodity    | Demand    | Customer  |  |  |  |  |  |
| Organization                          | \$ 49,500     |              | \$ 49,500 |           |  |  |  |  |  |
| Structures and Improvements           | 67,759        |              | 67,759    |           |  |  |  |  |  |
| Pumping Equipment                     | 99,325        |              | 99,325    |           |  |  |  |  |  |
| Distributions Reservoirs & Standpipes | 193,588       |              | 193,588   |           |  |  |  |  |  |
| Transmission & Distribution Mains     | 307,639       |              | 307,639   |           |  |  |  |  |  |
| Services                              | 21,471        |              |           | 21,471    |  |  |  |  |  |
| Meters & Meter Installations          | 84,935        |              |           | 84,935    |  |  |  |  |  |
| Subtotal                              | \$824,217     |              | \$717,811 | \$106,406 |  |  |  |  |  |
| Allocation Percentages                | 100%          |              | 87.1%     | 12.9%     |  |  |  |  |  |
| Hydrants                              | \$ 8,147      |              | \$ 7,096  | \$ 1,051  |  |  |  |  |  |
| Other Plant and Misc. Equipment       | \$32,731      |              | 28,509    | 4,222     |  |  |  |  |  |
| Office Furniture & Equipment          | \$6,971       |              | 6,072     | 899       |  |  |  |  |  |
| Transportation Equipment              | 21,788        |              | 18,977    | 2,811     |  |  |  |  |  |
| Tools, Shop and Garage Equipment      | 8,383         |              | 7,302     | 1,081     |  |  |  |  |  |
| Subtotal                              | \$78,020      |              | \$67,956  | \$10,064  |  |  |  |  |  |
| Total                                 | \$902,237     |              | \$785,767 | \$116,470 |  |  |  |  |  |
| Allocation Percentages                | 100%          |              | 87.1%     | 12.9%     |  |  |  |  |  |

Source: PSC Annual Report 2017 at 23

| Allocation of Opera                            |           |           | ise       |          |  |  |  |  |
|--|-----------|-----------|-----------|----------|--|--|--|--|
| Fountain Run Water District                    |           |           |           |          |  |  |  |  |
|  | Total     | Commodity | Demand    | Customer |  |  |  |  |
| Salaries & Wages- Employee (Field)             | \$68,118  |           | 68,118    |          |  |  |  |  |
| Salaries & Wages- Employee (Admin)             | \$17,764  |           |           | \$17,764 |  |  |  |  |
| Purchased Water                                | \$79,235  | \$79,235  |           |          |  |  |  |  |
| Purchased Power                                | \$3,033   |           |           |          |  |  |  |  |
| Materials & Supplies                           | \$2,513   |           | \$2,513   |          |  |  |  |  |
| Contract Services - Acct                       | \$7,804   |           |           | \$7,804  |  |  |  |  |
| Subtotal                                       | \$178,467 | \$82,268  | \$70,631  | \$25,568 |  |  |  |  |
| Less Commodity                                 | \$82,268  |           |           |          |  |  |  |  |
| Total  | \$96,199  |           | \$70,631  | \$25,568 |  |  |  |  |
| Allocation Percentages                         | 100%      |           | 73%       | 27%      |  |  |  |  |
| Transportation                                 | \$1,299   |           | \$948     | \$351    |  |  |  |  |
| Insurance Expense                              | \$11,932  |           | 8,710     | 3,222    |  |  |  |  |
| Miscellaneous                                  | \$4,882   |           | 3,564     |          |  |  |  |  |
| Water Testing                                  | \$2,532   |           | 1,848     | 684      |  |  |  |  |
| Salaries & Wages - Employees (General Manager) | \$10,315  |           | 7,530     | 2,785    |  |  |  |  |
| Purchase Power (Admin)                         | \$1,146   |           | 837       | 309      |  |  |  |  |
| Salaries & Wages - Officers                    | \$6,000   |           | 4,380     | 1,620    |  |  |  |  |
| Taxes OT Income - Officers                     | \$7,359   |           | 5,372     | 1,987    |  |  |  |  |
| Subtotal                                       | \$45,465  |           | \$33,189  | \$12,276 |  |  |  |  |
| Total Operating Expenses                       | \$223,932 | \$82,268  | \$103,820 | \$37,844 |  |  |  |  |

|                             | Allocation of | f Cost of Servic | е         |            |  |  |  |  |  |
|-----------------------------|---------------|------------------|-----------|------------|--|--|--|--|--|
| Fountain Run Water District |               |                  |           |            |  |  |  |  |  |
|                             | Total         | Commodity        | Demand    | Customer   |  |  |  |  |  |
| Operation & Maintenance     | \$223,932     | \$82,268         | \$103,820 | \$37,844   |  |  |  |  |  |
| Debt Service <sup>1</sup>   | 47,995        |                  | 43,100    | 4,895      |  |  |  |  |  |
| Depreciation <sup>2</sup>   | 55,573        |                  | 48,404    | 7,169      |  |  |  |  |  |
| General Water Service Cost  | \$327,500     | \$82,268         | \$195,324 | \$49,908   |  |  |  |  |  |
| Less:                       |               |                  |           |            |  |  |  |  |  |
| Interest Income             | (\$859)       |                  |           | (\$859)    |  |  |  |  |  |
| Other Operating Revenue     | (\$6,530)     |                  |           | (\$6,530)  |  |  |  |  |  |
| Nonutility Income           | (\$15,680)    |                  |           | (\$15,680) |  |  |  |  |  |
| Revenue Required from Rates | \$304,431     | \$82,268         | \$195,324 | \$26,839   |  |  |  |  |  |

#### NOTES:

<sup>1</sup>Debt Service has been allocated on a percentage of Plant Value from the Allocation of Plant Value Sheet.

<sup>2</sup>Depreciation has been allocated on a percentage of Depreciation from the Allocation of Depreciation Sheet.

|                                 |            | Calculation o       | f Water Rates      |                     |                     |  |  |  |  |  |
|---------------------------------|------------|---------------------|--------------------|---------------------|---------------------|--|--|--|--|--|
| Fountain Run Water District     |            |                     |                    |                     |                     |  |  |  |  |  |
|                                 | Total      | First 2,000 gallons | Next 8,000 gallons | Next 10,000 gallons | Over 20,000 gallons |  |  |  |  |  |
| Actual Water Sales:             |            |                     |                    |                     |                     |  |  |  |  |  |
| Thousand Gallons                | 35,118,848 | 9,594,148           | 12,039,700         | 3,089,700           | 10,395,300          |  |  |  |  |  |
| Percent                         | 100%       | 27.3191%            | 34.2827%           | 8.7978%             | 29.6003%            |  |  |  |  |  |
| Weighted Sales for Demand:      |            | 2                   | 1.66               | 1.33                | 1                   |  |  |  |  |  |
| Thousand Gallons                | 53,678,799 | 19,188,296          | 19,985,902         | 4,109,301           | 10,395,300          |  |  |  |  |  |
| Percent                         | 100%       | 35.75%              | 37.23%             | 7.65%               | 19.37%              |  |  |  |  |  |
| Allocation of Volumetric Costs: |            |                     |                    |                     |                     |  |  |  |  |  |
| Commodity                       | \$82,268   | \$22,475            | \$28,204           | \$7,238             | \$24,352            |  |  |  |  |  |
| Demand                          | 195,324    | 69,828              | 72,719             | 14,942              | 37,834              |  |  |  |  |  |
| Customer                        | 26,839     | 26,839              |                    |                     |                     |  |  |  |  |  |
| Total                           | \$ 304,431 | \$119,142           | \$100,923          | \$22,180            | \$62,186            |  |  |  |  |  |
| Number of Bills                 | 6,338      |                     |                    |                     |                     |  |  |  |  |  |
| Cost of Service Rates           |            | \$18.80             | \$8.38             | \$7.18              | \$5.98              |  |  |  |  |  |

## ATTACHMENT B

## ATTACHMENT TO A STAFF REPORT OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 2018-00205 DATED **OCT 0 1 2018**

## Monthly Water Rates

| <u>5/8 x 3/4-</u> | Inch Meter |         |          |                   |
|-------------------|------------|---------|----------|-------------------|
| First             | 2,000      | gallons | \$ 18.80 | Minimum bill      |
| Next              | 8,000      | gallons | 8.35     | per 1,000 gallons |
| Next              | 10,000     | gallons | 7.10     | per 1,000 gallons |
| All Over          | 20,000     | gallons | 5.80     | per 1,000 gallons |

|              |               | n of Rates 5/8 Inch x 3/4 | Inch     |            |
|--------------|---------------|---------------------------|----------|------------|
|              | Foun          | tain Run Water District   |          |            |
| Gallon Usage | Current Rates | Cost of Service<br>Rates  | Increase | Percentage |
| 2,000        | \$16.72       | \$18.80                   | 2.08     | 12.49      |
| 3,000        | 22.56         | 27.15                     | 4.59     | 20.39      |
| 4,000        | 28.40         | 35.50                     | 7.10     | 25.09      |
| 5,000        | 34.24         | 43.85                     | 9.61     | 28.19      |
| 6,000        | 39.67         | 52.20                     | 12.53    | 31.69      |
| 7,000        | 45.10         | 60.55                     | 15.45    | 34.3       |
| 8,000        | 50.53         | 68.90                     | 18.37    | 36.49      |
| 9,000        | 55.96         | 77.25                     | 21.29    | 38.0       |
| 10,000       | 61.39         | 85.60                     | 24.21    | 39.4       |
| 15,000       | 84.69         | 121.10                    | 36.41    | 43.0       |
| 20,000       | 107.99        | 156.60                    | 48.61    | 45.0       |
| 25,000       | 127.89        | 185.60                    | 57.71    | 45.1       |
| 30,000       | 147.79        | 214.60                    | 66.81    | 45.2       |
| 35,000       | 167.69        | 243.60                    | 75.91    | 45.3       |
| 40,000       | 187.59        | 272.60                    | 85.01    | 45.3       |
| 50,000       | 227.39        | 330.60                    | 103.21   | 45.4       |
| 75,000       | 326.89        | 475.60                    | 148.71   | 45.5       |
| 100,000      | 426.39        | 620.60                    | 194.21   | 45.5       |
| 150,000      | 625.39        | 910.60                    | 285.21   | 45.6       |
| 200,000      | 824.39        | 1,200.60                  | 376.21   | 45.6       |
| 250,000      | 1,023.39      | 1,490.60                  | 467.21   | 45.7       |

# Monthly Water Rates

## 1-Inch Meter

| First    | 5,000  | gallons | \$ 43.85 | Minimum bill      |
|----------|--------|---------|----------|-------------------|
| Next     | 5,000  | gallons | 8.35     | per 1,000 gallons |
| Next     | 10,000 | gallons | 7.10     | per 1,000 gallons |
| All Over | 20,000 | gallons | 5.80     | per 1,000 gallons |

|              |               | f Rates - 1 Inch Meter |          |            |
|--------------|---------------|------------------------|----------|------------|
|              | Fountain F    | Run Water District     |          |            |
| Callen Haana | Current Dates | Cost of Service        | lasures  | Deveenteer |
| Gallon Usage | Current Rates | Rates                  | Increase | Percentage |
| 5,000        | 34.24         | \$43.85                | 9.61     | 28.19      |
| 10,000       | 61.39         | 85.60                  | 24.21    | 39.49      |
| 15,000       | 84.69         | 146.15                 | 61.46    | 72.69      |
| 20,000       | 107.99        | 181.65                 | 73.66    | 68.2       |
| 25,000       | 127.89        | 210.65                 | 82.76    | 64.7       |
| 30,000       | 147.79        | 239.65                 | 91.86    | 62.2       |
| 35,000       | 167.69        | 268.65                 | 100.96   | 60.2       |
| 40,000       | 187.59        | 297.65                 | 110.06   | 58.7       |
| 50,000       | 227.39        | 355.65                 | 128.26   | 56.4       |
| 75,000       | 326.89        | 500.65                 | 173.76   | 53.2       |
| 100,000      | 426.39        | 645.65                 | 219.26   | 51.4       |
| 150,000      | 625.39        | 935.65                 | 310.26   | 49.6       |
| 200,000      | 824.39        | 1,225.65               | 401.26   | 48.7       |
| 250,000      | 1,023.39      | 1,515.65               | 492.26   | 48.1       |

## Monthly Water Rates

#### 2-Inch Meter First

20,000 All Over 20,000

gallons gallons

\$ 156.60 Minimum bill 5.80 per 1,000 gallons

| (            | Comparison of Ra | tes - 2 Inch       | Meter    |            |
|--------------|------------------|--------------------|----------|------------|
|              | Fountain Run     | Water Distri       | ct       |            |
| <b>.</b>     |                  | Cost of<br>Service |          |            |
| Gallon Usage | Current Rates    | Rates              | Increase | Percentage |
| 10,000       | \$61.39          | \$ 156.60          | \$95.21  | 155.1%     |
| 20,000       | 107.99           | 156.60             | 48.61    | 45.0%      |
| 25,000       | 127.89           | 185.60             | 57.71    | 45.1%      |
| 30,000       | 147.79           | 214.60             | 66.81    | 45.2%      |
| 35,000       | 167.69           | 243.60             | 75.91    | 45.3%      |
| 40,000       | 187.59           | 272.60             | 85.01    | 45.3%      |
| 50,000       | 227.39           | 330.60             | 103.21   | 45.4%      |
| 75,000       | 326.89           | 475.60             | 148.71   | 45.5%      |
| 100,000      | 426.39           | 620.60             | 194.21   | 45.5%      |
| 150,000      | 625.39           | 910.60             | 285.21   | 45.6%      |
| 200,000      | 824.39           | 1,200.60           | 376.21   | 45.6%      |
| 250,000      | 1,023.39         | 1,490.60           | 467.21   | 45.7%      |
| 500,000      | 2,018.39         | 2,940.60           | 922.21   | 45.7%      |

## ATTACHMENT C

# ATTACHMENT TO A STAFF REPORT OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 2018-00205 DATED OCT 0 1 2018

#### Monthly Water Rates

| 5/8 x 3/4- | Inch Meter |         |          |                   |
|------------|------------|---------|----------|-------------------|
| First      | 2,000      | gallons | \$ 17.90 | Minimum bill      |
| Next       | 8,000      | gallons | 7.46     | per 1,000 gallons |
| Next       | 10,000     | gallons | 5.90     | per 1,000 gallons |
| All Over   | 20,000     | gallons | 5.00     | per 1,000 gallons |
|            |            |         |          |                   |

|              |                      | n of Rates 5/8 Inch x 3/4 | Inch     |            |
|--------------|----------------------|---------------------------|----------|------------|
|              |                      | tain Run Water District   |          |            |
|              | 20% Increa           | ase in Revenue Require    | ment     |            |
|              |                      | Cost of Service           |          |            |
| Gallon Usage | <b>Current Rates</b> | Rates                     | Increase | Percentage |
| 2,000        | \$16.72              | \$17.90                   | 1.18     | 7.1%       |
| 3,000        | 22.56                | 25.36                     | 2.80     | 12.4%      |
| 4,000        | 28.40                | 32.82                     | 4.42     | 15.6%      |
| 5,000        | 34.24                | 40.28                     | 6.04     | 17.6%      |
| 6,000        | 39.67                | 47.74                     | 8.07     | 20.3%      |
| 7,000        | 45.10                | 55.20                     | 10.10    | 22.4%      |
| 8,000        | 50.53                | 62.66                     | 12.13    | 24.0%      |
| 9,000        | 55.96                | 70.12                     | 14.16    | 25.3%      |
| 10,000       | 61.39                | 77.58                     | 16.19    | 26.4%      |
| 15,000       | 84.69                | 107.08                    | 22.39    | 26.4%      |
| 20,000       | 107.99               | 136.58                    | 28.59    | 26.5%      |
| 25,000       | 127.89               | 161.58                    | 33.69    | 26.3%      |
| 30,000       | 147.79               | 186.58                    | 38.79    | 26.2%      |
| 35,000       | 167.69               | 211.58                    | 43.89    | 26.2%      |
| 40,000       | 187.59               | 236.58                    | 48.99    | 26.1%      |
| 50,000       | 227.39               | 286.58                    | 59.19    | 26.0%      |
| 75,000       | 326.89               | 411.58                    | 84.69    | 25.9%      |
| 100,000      | 426.39               | 536.58                    | 110.19   | 25.8%      |
| 150,000      | 625.39               | 786.58                    | 161.19   | 25.8%      |
| 200,000      | 824.39               | 1,036.58                  | 212.19   | 25.7%      |
| 250,000      | 1,023.39             | 1,286.58                  | 263.19   | 25.7%      |

# Monthly Water Rates

## 1-Inch Meter

| First    | 5,000  | gallons | \$ 40.28 | Minimum bill      |
|----------|--------|---------|----------|-------------------|
| Next     | 5,000  | gallons | 7.46     | per 1,000 gallons |
| Next     | 10,000 | gallons | 5.90     | per 1,000 gallons |
| All Over | 20,000 | gallons | 5.00     | per 1,000 gallons |

|              |                      | of Rates - 1 Inch Meter |          |            |
|--------------|----------------------|-------------------------|----------|------------|
|              | Fountain             | Run Water District      |          |            |
|              | 20% Increase         | in Revenue Requiremen   | nt       |            |
|              |                      | Cost of Service         |          |            |
| Gallon Usage | <b>Current Rates</b> | Rates                   | Increase | Percentage |
| 2,000        | \$16.72              | \$40.28                 | 23.56    | 140.9%     |
| 5,000        | 34.24                | \$40.28                 | 6.04     | 17.6%      |
| 10,000       | 61.39                | 77.58                   | 16.19    | 26.4%      |
| 15,000       | 84.69                | 107.08                  | 22.39    | 26.4%      |
| 20,000       | 107.99               | 136.58                  | 28.59    | 26.5%      |
| 25,000       | 127.89               | 161.58                  | 33.69    | 26.3%      |
| 30,000       | 147.79               | 186.58                  | 38.79    | 26.2%      |
| 35,000       | 167.69               | 211.58                  | 43.89    | 26.2%      |
| 40,000       | 187.59               | 236.58                  | 48.99    | 26.1%      |
| 50,000       | 227.39               | 286.58                  | 59.19    | 26.0%      |
| 75,000       | 326.89               | 411.58                  | 84.69    | 25.9%      |
| 100,000      | 426.39               | 536.58                  | 110.19   | 25.8%      |
| 150,000      | 625.39               | 786.58                  | 161.19   | 25.8%      |
| 200,000      | 824.39               | 1,036.58                | 212.19   | 25.7%      |
| 250,000      | 1,023.39             | 1,286.58                | 263.19   | 25.7%      |

## Monthly Water Rates

# 2-Inch Meter

First 20,000 All Over 20,000 gallons gallons

\$ 136.58 Minimum bill 5.00 per 1,000 gallons

| C            | Comparison of Ra     | tes - 2 Inch | Meter    |            |
|--------------|----------------------|--------------|----------|------------|
|              | Fountain Run         | Water Distr  | ict      |            |
| 20           | % Increase in Re     | venue Requ   | uirement |            |
|              |                      | Cost of      |          |            |
|              |                      | Service      |          |            |
| Gallon Usage | <b>Current Rates</b> | Rates        | Increase | Percentage |
| 10,000       | \$ 61.39             | \$ 136.58    | \$ 75.19 | 122.5%     |
| 20,000       | 107.99               | 136.58       | 28.59    | 26.5%      |
| 25,000       | 127.89               | 161.58       | 33.69    | 26.3%      |
| 30,000       | 147.79               | 186.58       | 38.79    | 26.2%      |
| 35,000       | 167.69               | 211.58       | 43.89    | 26.2%      |
| 40,000       | 187.59               | 236.58       | 48.99    | 26.1%      |
| 50,000       | 227.39               | 286.58       | 59.19    | 26.0%      |
| 75,000       | 326.89               | 411.58       | 84.69    | 25.9%      |
| 100,000      | 426.39               | 536.58       | 110.19   | 25.8%      |
| 150,000      | 625.39               | 786.58       | 161.19   | 25.8%      |
| 200,000      | 824.39               | 1,036.58     | 212.19   | 25.7%      |
| 250,000      | 1,023.39             | 1,286.58     | 263.19   | 25.7%      |
| 500,000      | 2,018.39             | 2,536.58     | 518.19   | 25.7%      |

\*Fountain Run Water District #1 226 Main Street P.O. Box 118 Fountain Run, KY 42133

\*Joe Cornwell Chairman Fountain Run Water District #1 226 Main Street P. O. Box 118 Fountain Run, KY 42133