

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF U.S. 60)
WATER DISTRICT OF SHELBY AND FRANKLIN) CASE NO.
COUNTIES FOR AN ALTERNATIVE RATE) 2017-00338
ADJUSTMENT)

NOTICE OF FILING OF COMMISSION STAFF REPORT

Notice is hereby given that, in accordance with the Commission's Order of November 21, 2017, the attached report containing the findings of Commission Staff regarding the Applicant's proposed rate adjustment has been filed in the record of the above-styled proceeding. Pursuant to the Commission's November 21, 2017 Order, U.S. 60 Water District of Shelby and Franklin Counties is required to file written comments regarding the findings of Commission Staff no later than 14 days from the date of entry of this report.



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

DATE FEB 08 2018

cc: Parties of Record

STAFF REPORT

ON

U.S. 60 WATER DISTRICT OF SHELBY AND FRANKLIN COUNTIES

CASE NO. 2017-00338

U.S. 60 Water District of Shelby and Franklin Counties (“U.S. 60”) is a water utility district, organized pursuant to KRS Chapter 74, that owns and operates a water distribution system through which it provides retail water service to approximately 2,419 customers residing in Anderson, Franklin, Shelby, and Spencer counties, Kentucky.¹ On September 7, 2017, U.S. 60 tendered an application (“Application”) to the Commission requesting to increase its water service rates pursuant to 807 KAR 5:076. On November 2, 2017, U.S. 60 filed an amendment to their application which incorporated recent changes to their Operation Contract with North Shelby Water Company (“North Shelby”). To ensure the orderly review of the Application, the Commission established a procedural schedule by Order dated November 21, 2017.²

As required by 807 KAR 5:076, Section 9, U.S. 60 based its requested rates on a historical test period that coincides with the reporting period shown in its most recent Annual Report on file with the Commission at the time it filed the Application, for the calendar year ended December 31, 2016. Based on financial exhibits U.S. 60 presented in its Application and incorporating the changes filed in U.S. 60’s November 2, 2017 amendment, the water district requested rates that would increase annual water sales

¹ *Annual Report of U.S. 60 Water District of Shelby and Franklin Counties to the Public Service Commission for the Calendar Year Ended December 31, 2016* (“Annual Report”) at 12 and 48.

² The Commission initially established a procedural schedule by Order dated October 6, 2017; however, the Commission established a new procedural schedule in the November 21, 2017 Order due to the subsequent amendment filed to the Application.

revenues by \$312,625, a 28.77 percent increase to test-year water sales revenues of \$1,086,817. The exhibits are summarized below in condensed form.

Pro Forma Operating Expenses	\$1,234,391
Plus: Average Annual Principal and Interest Payments	190,646
Additional Working Capital	<u>15,700</u>
Overall Revenue Requirement	1,440,737
Less: Other Operating Revenue	(36,080)
Interest Income	<u>(5,215)</u>
Revenue Required from Rates	1,399,442
Less: Pro Forma Present Rate Service Revenues	<u>(1,086,817)</u>
Required Revenue Increase	<u>\$ 312,625</u>
Percentage Increase	<u>28.77%</u>

To determine the reasonableness of the rates requested by U.S. 60, Staff performed a limited financial review of U.S. 60's test-year operations. The scope of Staff's review was limited to determining whether operations reported for the test year were representative of normal operations. Known and measurable changes to test-year operations were identified, and adjustments were made when their effects were deemed to be material. Insignificant and immaterial discrepancies were not necessarily pursued or addressed.

Staff's findings are summarized in this report. David Foster reviewed the calculation of U.S. 60's Overall Revenue Requirement. Sam Reid reviewed U.S. 60's reported revenues and rate design.

Summary of Findings

1. Overall Revenue Requirement and Required Revenue Increase. By applying the Debt Service Coverage (“DSC”) method, as generally accepted by the Commission, Staff found that U.S. 60’s Overall Revenue Requirement is \$1,411,583 and that a \$217,834 revenue increase, or 18.9 percent, to pro forma present rate revenues is necessary to generate the Overall Revenue Requirement.

2. Water Service Rates. U.S. 60 proposes in its amended Application, filed November 2, 2017, to increase its current water service rates by approximately 28.77 percent evenly across the board. U.S. 60 has not performed a cost-of-service study (“COSS”). The Commission has previously found that an across-the-board increase is an appropriate and equitable method of cost allocation in the absence of a COSS. Staff finds that an across-the-board increase is the appropriate means to allocate the increased revenue requirement. The rates set forth in the Attachment to this report are based upon the revenue requirement as calculated by Staff, and will produce sufficient revenues from water sales to recover the \$1,370,288 Revenue Requirement from water sales determined by Staff, an approximate 18.9 percent increase. These rates will increase an average customer’s monthly water bill using 5,000 gallons from \$43.08 to \$51.22, an increase of \$8.14 or approximately 18.9 percent.

3. Depreciation. Staff finds that the current depreciable lives assigned to some of U.S. 60’s assets should be revised for ratemaking purposes. Any depreciable lives approved by the Commission in this proceeding for ratemaking purposes should also be used by U.S. 60 for all future accounting and reporting purposes. No adjustment to

accumulated depreciation or retained earnings should be made to account for the effect of this change in accounting estimate.

Pro Forma Operating Statement

U.S. 60's Pro Forma Operating Statement for the test year ended December 31, 2016, as determined by Staff, appears below.

	<u>Test Year</u>	<u>Adjustment</u>	<u>(Ref.)</u>	<u>Pro Forma</u>
Operating Revenues				
Sales of Water	\$ 1,086,817	\$ 15,624 (2,897) 52,910	(A) (B) (C)	\$ 1,152,454
Other Water Revenues	36,080			36,080
Total Operating Revenues	<u>1,122,897</u>	<u>65,637</u>		<u>1,188,534</u>
Operating Expenses				
Operation and Maintenance Expenses				
Salaries and Wages - Employees	2,400	(2,400)	(D)	-
Salaries and Wages - Commissioners	13,050			13,050
Purchased Water	456,433	32,468	(E)	488,901
Purchased Power for Pumping	29,767			29,767
Materials and Supplies	52,067			52,067
Contractual Services	227,811	8,142	(F)	235,953
Water Testing	5,520			5,520
Rent	61,212			61,212
Insurance	13,630	3,239	(G)	16,869
Bad Debt Expense	7,652			7,652
Miscellaneous Expense	15,664			15,664
Total Operation and Maintenance Expenses	885,206	41,449		926,655
Taxes Other Than Income	3,497			3,497
Depreciation	262,526	(40,863)	(H)	221,663
Total Operating Expenses	<u>1,151,229</u>	<u>586</u>		<u>1,151,815</u>
Net Operating Income	(28,332)	65,051		36,719
Interest Income	5,215			5,215
Income Available to Service Debt	<u>\$ (23,117)</u>	<u>\$ 65,051</u>		<u>\$ 41,934</u>

(A) Billing Analysis Adjustment. U.S. 60's Application stated test-year Pro Forma revenues from water sales to be \$1,086,817. U.S. 60 included in its Application a

billing analysis, which was based on actual customer water usage and derived from U.S. 60's electronic billing software. U.S. 60 did not reconcile the provided billing analysis revenues with the Pro Forma revenues stated in the Application. Staff has reviewed U.S. 60's billing analysis and finds that the billing analysis provided in the Application does not reflect adjustments to customer accounts. U.S. 60 tracks customer account billing adjustments for billing errors, leak adjustment fees, misread meters, and equipment failures financially in U.S. 60's billing program; however, the billing program does not allow for corresponding usage adjustments. The test year billing analysis provided in the Application does not reflect the adjustments made to customers' bills that were made after the bills were issued. The combined revenues for U.S. 60's three meter classifications in the billing analysis is \$1,131,846. Staff reduced test year water sales revenues stated in the test year billing analysis to reflect credits to customer accounts for leak adjustments in the amount of \$14,654, and misread meters in the amount of \$17,648. Staff finds that the adjusted billing analysis revenues of \$1,099,544 provide a more accurate representation of test year revenue from water sales than the \$1,083,920 as adjusted for the reduction in Fire Protection revenues,³ stated by U.S. 60 in the application. Therefore, Staff increased test year water sales revenue by \$15,624.

(B) Fire Protection Services. U.S. 60 included \$2,897 of revenue generated from the utility's Fire Protection Rate in the test-year pro forma statement. During the test year U.S. 60 ceased charging Fire Protection monthly charge for customers that have a fire sprinkler protection system. Therefore, Staff reduced test year water sales by \$2,897.

³ \$1,086,817 - \$ 2,897 = \$1,083,920.

(C) Purchased Water Adjustment Increase. U.S. 60 applied to the Commission twice for rate increases pursuant to 807 KAR 5:068, the Purchased Water Adjustment(PWA) U.S. 60 was granted the increases by Commission Orders; first, during the test year, by Order dated November 22, 2016, in Case No. 2016-00366;⁴ and second dated by order dated December 8, 2017 in Case No. 2017-00432.⁵ The PWA adjustments increased test year normalized revenues by \$52,910.

(D) Salaries and Wages. During the test year, U.S. 60 reported \$2,400 for Salaries and Wages – Employees expense. This amount represents annual bonuses paid to all of North Shelby's employees. For ratemaking purposes, Staff excluded this amount from pro forma operations.

(E) Purchased Water. The Electric and Water Plant Board of the City of Frankfort, Kentucky ("City of Frankfort") increased its wholesale water rate once during the test year,⁶ and once in 2017.⁷ Staff is increasing test-year purchased water expense by \$32,468 to account for the wholesale rate of \$2.55 per thousand gallons that became effective on November 1, 2017. Included in Staff's calculation is the \$0.20 per thousand gallons that U.S. 60 pays to the City of Frankfort for the Kentucky River Authority Water Withdrawal Fee, as shown below.

⁴ Case No. 2016-00366, *Purchased Water Adjustment Filing Of U.S. 60 Water District* (Ky. PSC Nov. 22, 2016)

⁵ Case No. 2017-00432, *Purchased Water Adjustment Filing Of U.S. 60 Water District* (Ky. PSC Dec. 8, 2017)

⁶ Case No. 2016-00366, *Purchased Water Adjustment Filing of U.S. 60 Water District* (Ky. PSC Nov. 22, 2016).

⁷ Case No. 2017-00432, *Purchased Water Adjustment Filing of U.S. 60 Water District* (Ky. PSC Dec. 8, 2017).

Test-Year Water Purchases	177,782,000
Wholesale Rate per Gallon	<u>\$ 0.00275</u>
Pro Forma Purchased Water	488,901
Less: Reported Test-Year Expense	<u>(456,433)</u>
Pro Forma Adjustment	<u><u>\$ 32,468</u></u>

(F) Contractual Services. In the test year, U.S. 60 reported \$227,811 in Contractual Services paid. Included in this amount was \$12,985 in audit and accounting fees, \$13,446 in legal fees, and \$201,380 that U.S. 60 paid to North Shelby Water Company (“North Shelby”) pursuant to an Operational Agreement (“Agreement”) between North Shelby and U.S. 60. As a part of the Agreement, which was last amended September 19, 2017, North Shelby agrees to, “provide and pay for the office facilities, management and all other employees, and all other labor, materials (except for any materials purchased directly from the vendor by U.S. 60), and other items necessary to maintain and operate U.S. 60’s water distribution system”⁸ for which U.S. 60 agrees to compensate North Shelby. U.S. 60 has no employees and all business is conducted by North Shelby for U.S. 60 pursuant to the Agreement. Staff reviewed the financial information and allocations on which North Shelby based its contracted annual compensation, and determined it to be reasonable. On November 2, 2017, U.S. 60 filed a motion with the Commission to amend its Application to include increases to office rent, and decreases to administrative and office expenses and mileage rates that occurred as a result of amending its Agreement with North Shelby. Staff increased the amount of

⁸ Amended Application, Exhibit A, “Joint Operation Contract” at 1.

Contractual Services by \$8,142 to reflect the annual increase as a result of the amended Agreement.

(G) Insurance. U.S. 60 reported \$13,630 for test-year Insurance Expense. U.S. 60 proposed to increase the test-year expense by \$3,239 to account for an increase to the premium of its General Liability Insurance that occurred subsequent to the test year.⁹ Staff agrees with the adjustment proposed by U.S. 60 and has increased test-year Insurance Expense by \$3,239.

(H) Depreciation. U.S. 60 reported test-year depreciation expense of \$262,526. This amount was calculated using the whole-life, straight-line method pursuant to which an asset's depreciable basis is divided by its estimated useful life. In the Application, U.S. 60 requested to increase depreciation expense by \$57,500 to account for the additional depreciation expense that will begin after a new water main and pump station becomes operational.

Staff finds that the test-year amount should be decreased by \$40,863 to account for the following:

- 1) Reflect modifying the depreciable lives currently assigned to Transmission and Distribution Mains ("Mains") from 40 to 62.5 years and to reflect modifying the depreciable lives currently assigned to Meters/Services from 20 to 42.5 years as shown below.

⁹ Application, Schedule of Adjusted Operations, References.

	Depreciable Basis at 12/31/2016	Divide by: Life Year	Pro Forma Depreciation Expense
Transmission and Distribution Mains	\$ 7,495,122	62.5	\$ 119,922
Meters/Services	<u>518,259</u>	<u>42.5</u>	<u>12,194</u>
Total			132,116
Less: Test Year Depreciation - Mains and Meters			<u>(210,945)</u>
Pro Forma Depreciation Adjustment			<u>\$ (78,829)</u>

2) To reflect depreciation expense on a water main and pump station project that was completed subsequent to the test year. The calculation of Staff's adjustment is shown below.

NARUC Account Title	Asset Cost	Divide by: Life Year	Pro Forma Depreciation Expense
Transmission and Distribution Mains	\$ 2,169,261	62.5	\$ 34,708
Hydrants	34,273	50	685
Structures and Improvements	96,460	37.5	<u>2,572</u>
Total			<u>\$ 37,966</u>

U.S. 60 based its pro forma depreciation adjustment for the waterworks construction project on the total cost of the project presented in the application in Case No. 2016-00323 that was subsequently approved.¹⁰ Staff had discussions with the U.S. 60's attorney, who also prepared its Application, and the attorney stated that he depreciated the project over the 40-year useful lives U.S. 60 was using for its

¹⁰ Case No. 2016-00323, *Electronic Application of U.S. 60 Water District of Shelby and Franklin Counties for a Certificate of Public Convenience and Necessity to Construct and Finance Pursuant to KRS 278.020 and KRS 278.300* (Ky. PSC Sept. 28, 2016).

Transmission and Distribution Mains. After reviewing contractor construction bid documents filed with the Commission by U.S. 60 in Case No. 2016-00323, Staff determined that the plant assets constructed consisted of Transmission and Distribution Mains, Structures and Improvements, and Hydrants. For depreciation purposes for this report, Staff allocated project overhead expenses to the appropriate plant subsidiary accounts based on the lowest contractor bid that was provided to the Commission. Staff's allocation is shown below:

<u>NARUC Account Title</u>	<u>Contractor Bid</u>	<u>Percent of Total Bid</u>	<u>Allocated Overheads</u>	<u>Depreciable Basis</u>
Transmission and Distribution Mains	\$ 1,383,512	94.32%	\$ 785,748	\$ 2,169,261
Hydrants	21,860	1.49%	12,415	34,273
Structures and Improvements	<u>61,520</u>	<u>4.19%</u>	<u>34,940</u>	<u>96,460</u>
Total Construction Costs	1,466,892	100%		
Overhead Expenses	<u>833,103</u>		<u>\$ 833,103</u>	
Total Project Cost	<u>\$ 2,299,995</u>			<u>\$ 2,299,995</u>

Change to Depreciable Lives

The Commission requires that a large utility perform a depreciation study to determine the appropriate depreciable lives to be assigned to each of its utility plant account groups. Detailed property records specific to historic plant additions, plant retirements, and salvage practices are required to complete a depreciation study. Generally, small water utilities such as U.S. 60 do not maintain property records with enough detail to properly complete a formal study. Even when adequate records are maintained, small utilities do not have the financial resources to fund a formal study. Therefore, to evaluate the reasonableness of the depreciation practices of small water

utilities, the Commission has historically relied upon the National Association of Regulatory Utility Commissioners (“NARUC”) Study published in 1979.¹¹

The NARUC Study provides a range of average service lives that are assigned to water plant account groups by water utilities across the country that design, install, and maintain their systems in accordance with good engineering practices. It concludes that the ranges are intended to be used as a guide by state regulatory commissions and other water utilities when developing the depreciable lives to be assigned to water plant account groups. For example, the NARUC Study found that transmission and distribution mains are depreciated between 50 and 75 years. Using depreciable lives outside the NARUC ranges are acceptable when conditions warrant alternative lives.

When no evidence exists to support a specific life that is inside or outside the NARUC ranges, the Commission has used the mid-point of the NARUC ranges to depreciate utility plant. In Case No. 2013-00154, the Commission found that Henderson County Water District (“Henderson District”) was depreciating the cost of a portion of its main using a 40-year life, and other portions using a 50-year life. Even though the 50-year life is within the NARUC range, the Commission found that the depreciable life assigned to all of Henderson District’s mains should be 62.5 years, the mid-point of the NARUC range, because no evidence was presented to support the 40-year or 50-year lives.¹²

¹¹ Case No. 2012-00278, *Application of Graves County Water District for an Adjustment in Rates Pursuant to the Alternative Rate Filing Procedure for Small Utilities* (Ky. PSC September 5, 2012).

¹² Case No. 2013-00154, *Application of Henderson County Water District for an Alternative Rate Filing* (Ky. PSC Nov. 14, 2013) at Appendix B.

In this proceeding, Staff found no evidence to suggest that any of U.S. 60's asset account groups should be depreciated using lives that vary significantly from the mid-point of the NARUC ranges. Generally, the lives that U.S. 60 has assigned to each asset account group, except for Mains and Meters, are close enough to the mid-point that adjustments to the mid-point would not have a material effect on U.S. 60's test-year depreciation expense. During the test year, U.S. 60 depreciated Mains and Meters using 40 and 20 years, respectively. Adjusting these lives to the NARUC mid-point has a material effect on test-year depreciation and is reasonable.

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;¹³ 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 U.S. 60's and Staff's calculations of the Overall Revenue Requirement and Required Revenue Increase using the DSC method is shown below.

¹³ 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)

	U.S. 60	Staff	
Pro Forma Operating Expenses	\$1,234,391	\$ 1,151,815	
Plus: Average Annual Principal and Interest Payments	190,646	216,473	(1)
Additional Working Capital	<u>15,700</u>	<u>43,295</u>	(2)
Overall Revenue Requirement	1,440,737	1,411,583	
Less: Other Operating Revenue	(36,080)	(36,080)	
Interest Income	<u>(5,215)</u>	<u>(5,215)</u>	
Revenue Required from Rates	1,399,442	1,370,288	
Less: Pro Forma Present Rate Service Revenues	<u>(1,086,817)</u>	<u>(1,152,454)</u>	
Required Revenue Increase	<u>\$ 312,625</u>	<u>\$ 217,834</u>	
Percentage Increase	<u>28.77%</u>	<u>18.90%</u>	

(1) Average Annual Principal and Interest Payments. U.S. 60 currently has three outstanding bonds payable to the United States Department of Agriculture Rural Development (“RD”); one bond payable to the Kentucky Rural Water Finance Corporation (“KRWFC”); and a loan payable to the Kentucky Infrastructure Authority (“KIA”).

In its Application, U.S. 60 requested to include \$190,646 in its Overall Revenue Requirement to recover the three-year average of its debt payments. U.S. 60 did not show the calculation of the average payment in the Application. However, during Staff’s review, Staff determined that U.S. 60 did not include the debt payable to KIA that was approved in Case No. 2016-00323. Staff included this loan in its average debt calculation.

Staff finds that the average annual debt payment that should be included in the calculation of U.S. 60’s Overall Revenue Requirement should be equal to the five-year average for the years 2018 through 2022, or \$216,473. This five-year average, which is calculated below, allows U.S. 60 recovery of the debt payments that will be made during

the anticipated five-year life of the rates authorized by the Commission in this proceeding.¹⁴

Year	Principal	Interest	Principal and Interest
2018	\$ 128,794	\$ 89,913	\$ 218,707
2019	130,670	86,480	217,150
2020	133,469	83,202	216,671
2021	135,490	79,762	215,252
2022	138,434	76,153	214,587
Total	<u>666,857</u>	<u>415,511</u>	<u>1,082,367</u>
5-Year Average	<u>\$ 133,371</u>	<u>\$ 83,102</u>	<u>\$ 216,473</u>

(2) Additional Working Capital. The DSC method, as historically applied by the Commission, includes an allowance for additional working capital that is equal to the minimum net revenues required by a district's lenders that are above its average annual debt payments. Following the Commission's historic practice, Staff calculated U.S. 60's allowance for additional working capital based on a DSC ratio of 1.20, to be \$43,295, as shown below. Staff included this amount in the calculation of U.S. 60's Overall Revenue Requirement.

¹⁴ Generally, the anticipated life of a utility's service rates is based on the frequency of the utility's previous rate case filings, but is no longer than five years, since rates tend to become obsolete due to changes that will likely occur to the utility's cost of service in a five-year period. U.S. 60 has never sought a general rate adjustment pursuant to the provisions of either 807 KAR 5:001, Section 16, or 807 KAR 5:076). It has adjusted water service rates only pursuant to KRS 278.023 as part of a construction project. Therefore, Staff finds that the anticipated life of the rates approved in this proceeding is five years.

Average Annual Principal and Interest	\$ 216,473
Times: DSC Coverage Ratio	<u>120%</u>
Total Net Revenues Required	259,768
Less: Average Annual Principal and Interest Payments	<u>(216,473)</u>
Additional Working Capital	<u>\$ 43,295</u>

Signatures



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ATTACHMENT

ATTACHMENT TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE
COMMISSION IN CASE NO. 2017-00338 DATED **FEB 08 2018**

Monthly Water Rates

5/8-Inch meter

First	1,000 Gallons	\$16.98 Minimum Bill
Next	2,000 Gallons	\$9.31 per 1,000 Gallons
Next	2,000 Gallons	\$7.81 per 1,000 Gallons
Over	5,000 Gallons	\$7.09 per 1,000 Gallons

1-Inch meter

First	5,000 Gallons	\$51.22 Minimum Bill
Over	5,000 Gallons	\$7.09 per 1,000 Gallons

2-Inch meter

First	25,000 Gallons	\$193.02 Minimum Bill
Over	25,000 Gallons	\$7.09 per 1,000 Gallons

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