

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF ESTILL COUNTY)
WATER DISTRICT NO. 1 FOR AN ALTERNATIVE) CASE NO.
RATE ADJUSTMENT) 2017-00176

NOTICE OF FILING OF COMMISSION STAFF REPORT

Notice is hereby given that, in accordance with the Commission's Order of June 12, 2017, the attached report containing the findings of Commission Staff regarding the Applicant's proposed adjustment to its water service rates has been filed in the record of the above-styled proceeding. Pursuant to the Commission's June 12, 2017 Order, Estill County Water District No. 1 is required to file written comments regarding the findings of Commission Staff no later than 14 days from the date of this report.



John S. Lyons
Acting Executive Director
Public Service Commission
P.O. Box 615
Frankfort, KY 40602

DATE AUG 09 2017
cc: Parties of Record

STAFF REPORT
ON
ESTILL COUNTY WATER DISTRICT NO. 1
CASE NO. 2017-00176

Estill County Water District No. 1 (“Estill District”) is a water district organized pursuant to KRS Chapter 74 that owns and operates a water distribution system through which it provides water service to approximately 3,777 customers located in Estill County, Kentucky.¹ On May 10, 2017, Estill District filed an application (“Application”) with the Commission pursuant to 807 KAR 5:076 requesting to increase its monthly water service rates evenly across the board by approximately 22.5 percent, except for its fire-protection rates. It did not propose to increase fire protection rates.

The requested water service rates would increase the monthly bill of a typical residential customer² from \$33.94 to \$41.57, an increase of \$7.63, or 22.5 percent, and were designed to generate \$345,009³ in additional annual revenues, a 22.5 percent increase to pro forma present rate revenues from water service rates in the amount of \$1,533,377.

To ensure the orderly review of the Application, the Commission established a procedural schedule by Order dated June 12, 2017. This Order required Commission

¹ *Annual Report of Estill County Water District to the Public Service Commission for the Calendar Year Ended December 31, 2015* (“Annual Report”) at 12 and 53.

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

³ In the “Revenue Requirements” calculation presented by Estill District in the Application, Estill District determined that a revenue increase in the amount of \$404,537 is warranted. It did not explain in the Application why it requested only \$345,009.

Staff ("Staff") to issue a report summarizing its findings after reviewing the Application and supporting documentation.

As required by 807 KAR 5:076, Section 3, Estill District based its requested rates on the historical test year that coincides with the reporting period shown in its most recent Annual Report on file with the Commission at the time it filed the Application, the calendar year ended December 31, 2015. Staff performed a limited financial review of Estill District's test-year operations to gather the information necessary to determine the reasonableness of the rates requested in the Application and to prepare the report required by the Commission's June 12, 2017 Order.

The scope of the 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. Staff did not necessarily pursue or address discrepancies that it deemed insignificant and immaterial. Staff's findings are summarized in this report. Jack Scott Lawless reviewed the calculation of Estill District's Overall Revenue Requirement. Eddie Beavers reviewed Estill District's reported revenues and rate design.

Summary of Findings

1. Overall Revenue Requirement and Required Revenue Increase. By applying a Debt Service Method that is generally accepted by the Commission, Staff calculated Estill District's Overall Revenue Requirement to be \$1,947,095 and determined that a revenue increase in the amount of \$360,445, or 23.91 percent, is necessary to generate the Overall Revenue Requirement.

2. Monthly Water Service Rates. In the Application, Estill District proposed to increase all of its monthly water service rates evenly across the board by approximately 22.5 percent, except for fire-protection rates. It did not propose to increase fire protection rates. The Commission has previously found that the allocation of a revenue increase evenly across the board to a utility's current rate design is appropriate when no evidence has been entered into the record demonstrating that this method is unreasonable. Finding no such evidence in this case, Staff followed the method proposed by Estill District and allocated the \$360,445 revenue increase Staff found warranted evenly across the board to Estill District's current monthly water service rates, excluding fire-protection rates.

Shown in the Attachment to this report are the monthly water service rates calculated by Staff. These rates will increase a typical residential customer's monthly bill from \$33.94 to \$42.05, an increase of \$8.11, or 23.9 percent.

3. Depreciable Lives. Beginning on page 13 of this report, Staff discusses Estill District's depreciation practices. Staff found that adjustments are warranted to the depreciable lives that Estill District used to calculate depreciation expense during the test year. If the Commission Orders any changes to Estill District's depreciable lives for ratemaking and accounting purposes, Estill District should ensure that it calculates and records depreciation expense in all future reporting periods in accordance with the Commission's Orders. Estill District should not adjust accumulated depreciation or retained earnings to account for the retroactive cumulative effect of this change in accounting estimate.

4. Unauthorized Debt. As discussed in more detail beginning on page 21 of this report, Estill District currently has three loans outstanding that are payable to Citizens Guaranty Bank for which Estill District did not obtain Commission approval as required by KRS 278.300. Estill District has the responsibility to ensure that it follows the Commission's statutes and regulations and that all statutory and regulatory approvals are obtained. Estill District should be aware that the Commission may initiate a separate proceeding to more thoroughly investigate the possible violations of Commission statutes and regulations. If a determination is made that there has been a willful violation of any provision of KRS Chapter 278 and 807 KAR Chapter 5, the members of the Board of Commissioners may be held accountable.⁴

⁴ KRS 278.990(1). Any officer, agent, or employee of a utility, as defined in KRS 278.010, and any other person who willfully violates any of the provisions of this chapter or any regulation promulgated pursuant to this chapter, or fails to obey any order of the commission from which all rights of appeal have been exhausted, or who procures, aids, or abets a violation by any utility, shall be subject to either a civil penalty to be assessed by the commission not to exceed two thousand five hundred dollars (\$2,500) for each offense or a criminal penalty of imprisonment for not more than six (6) months, or both.

Pro Forma Operating Statement

Estill District's Pro Forma Operating Statement for the test year ended December 31, 2015, 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	\$ 1,474,646	\$ 13,032	(A)	
		(24,300)	(B)	
		44,175	(C)	\$ 1,507,553
Miscellaneous Service Revenue	65,885	12,977	(D)	78,862
Total Operating Revenues	<u>1,540,531</u>	<u>45,884</u>		<u>1,586,415</u>
Operating Expenses				
Operation and Maintenance Expenses				
Salaries and Wages - Employees	296,946	(30,784)	(E)	266,162
Salaries and Wages - Commissioners	17,610			17,610
Employee Pensions and Benefits	165,889	(24,582)	(E)	
		(861)	(F)	
		(29,641)	(G)	110,805
Purchased Water	687,537	(1,656)	(H)	685,881
Purchased Power	70,650	(13,139)	(I)	57,511
Materials and Supplies	72,238			72,238
Contractual Services	37,570			37,570
Water Testing	4,418			4,418
Transportation Expenses	23,143			23,143
Insurance	31,986			31,986
Bad Debt Expense	256			256
Regulatory Commission Expense	5,267			5,267
Miscellaneous Expense	59,244	(6,751)	(J)	52,493
Total Operation and Maintenance Expenses	<u>1,472,754</u>	<u>(107,414)</u>		<u>1,365,340</u>
Depreciation	391,297	(137,907)	(K)	253,390
Amortization	272			272
Taxes Other Than Income	24,064	(2,355)	(E)	21,709
Total Operating Expenses	<u>1,888,387</u>	<u>(247,676)</u>		<u>1,640,711</u>
Net Operating Income	<u>(347,856)</u>	<u>293,561</u>		<u>(54,295)</u>
Interest Income	234			234
Income Available to Service Debt	<u>\$ (347,622)</u>	<u>\$ 293,561</u>		<u>\$ (54,061)</u>

(A) Billing Analysis Adjustment. Estill District provided a billing analysis that based the water usage and water-sales revenue for the entire 12-month test year with

its application. The billing analysis provided in the Application contained errors in the Usage Tables and Revenue Tables.

During Staff's Field Review, Estill District provided a revised billing analysis that calculated a normalized revenue of \$1,531,853. Staff has reviewed Estill District's billing analysis and finds that the water-sales revenues determined by the billing analysis provided during the field review is a more accurate representation of normalized test year revenue from water sales than the amount used by Estill District in the Application; therefore, staff has increased test year water sales revenue by \$13,032.

(B) Leak and Misread Meter Adjustments. Estill District tracks customer account billing adjustments for leak adjustments and misread meters manually and makes the financial adjustments in Estill District's billing program; however, the billing program does not allow for corresponding usage adjustments. The test-year billing analysis provided during Staff's Field Review does not reflect the adjustments made to customers' bills that were made after the bills were issued. Staff reduced test-year water sales revenues stated in the test-year billing analysis by \$24,300 to reflect credits to customer accounts for leak and misread meter adjustments.

(C) Purchased Water Adjustments. Estill District purchases water from the Irvine Municipal Utilities ("Irvine") and the Jackson County Water Association ("Jackson County"). Irvine increased its wholesale rate for water sold to Estill District during the test year. In Case No. 2015-00223, Estill District adjusted its monthly water rates during the test year pursuant to 807 KAR 5:068, Purchased Water Adjustment.⁵ Additionally, in 2016, Irvine increased its wholesale rate for water sold to Estill District and, In Case

⁵ *Purchased Water Adjustment Filing of Estill County Water District No. 1* (Ky. PSC July 30, 2015).

No. 2016-00256, Estill District adjusted its monthly water rates pursuant to 807 KAR 5:068, Purchased Water Adjustment.⁶ Staff has adjusted the revenues for the two Purchased Water Adjustment in the amount of \$44,175.

(D) Surcharge Revenue. In Case No. 1999-00404,⁷ the Commission authorized Estill District to collect a surcharge in the amount of \$4.81 per month from each customer served through the Cobb Hill water main extension project. Estill District reported surcharge revenue totaling \$12,977 as a part of test-year Sales of Water revenue. The surcharge revenue was inadvertently omitted from the billing analysis provided in the Application in which Estill District calculated pro forma present rate revenues to be \$1,533,377. To correct this omission, Staff increased test-year Miscellaneous Service Revenue by \$12,977.

(E) Retired Employee. During the test year, Estill District had eight full-time employees. One field employee retired from service subsequent to the test year. Although Estill District plans to fill this vacant position in the future, it had not done so at the time of Staff's review. Furthermore, Estill District had not adopted a formal plan to fill the position. Accordingly, Staff removed the retired employee's wages, benefits, and payroll taxes from Estill District's test-year operations as detailed below.

⁶ *Purchased Water Adjustment Filing of Estill County Water District No. 1* (Ky. PSC Aug. 5, 2016).

⁷ *Application of Estill County Water District No. 1 of Estill County, Kentucky, for a Certificate of Public Convenience and Necessity to Construct, Finance and Increase Rates Pursuant to KRS 278.023* (Ky. PSC Oct. 22, 1999).

Wages		\$ 30,784
Benefits		
Pension	5,750	
Health Insurance	18,154	
Dental Insurance	264	
Life Insurance	413	24,582
Payroll Taxes		<u>2,355</u>
Total		<u>\$ 57,721</u>

(F) Benefits Paid on Behalf of the Board of Commissioners. Estill District's Board of Commissioners consists of three members to whom Estill District provided single dental insurance coverage during the test year at a total cost of \$861.

In Case No. 2003-00224,⁸ the Commission found that the members of a Board of Commissioners should be treated as part-time employees, as they generally attend only one board meeting per month and are not required to work 40 hours per week. The Commission denied rate recovery of the costs associated with health insurance, life insurance, and dental insurance provided to members of the district's Board of Commissioners, since the district did not provide those benefits to other part-time employees.

Pursuant to its employment policies, Estill District provides insurance benefits only to full-time employees.⁹ As the Commission considers each member of Estill District's Board of Commissioners as a part-time employee, Staff removed the cost of each member's dental insurance from Estill District's test-year operations.

⁸ Case No. 2003-00224, *Application of Northern Kentucky Water District for (A) an Adjustment of Rates; (B) a Certificate of Public Convenience and Necessity for Improvements to Water Facilities if Necessary; and (C) Issuance of Bonds* (Ky. PSC June 14, 2004) at 11-12.

⁹ On October 10, 2007, Estill District adopted a Personnel Policies and Procedures Manual. Policy 535 of this manual restricts all insurance coverage to full-time employees.

(G) Wages and Benefits. As previously discussed, Estill District had eight full-time employees during the test year, but only seven at the time of Staff's review. The benefit package provided to each employee by Estill District includes: 1) wages; 2) insurance benefits paid 100 percent by the district that includes single or family health care coverage, single dental coverage, and life insurance; 3) a health insurance deductible reimbursement program;¹⁰ and 4) a pension benefit provided through participation in the County Employee Retirement System ("CERS").¹¹

During discussions with Estill District's Office Manager, Staff found that employee wage rates have remained unchanged since the year 2007, but that the life insurance benefit was added to the benefit package in approximately 2013 in lieu of employee wage increases.

In recent Orders, the Commission has made ratemaking adjustments to reduce the level of rate recovery of the cost of employee benefit packages paid by some utilities on behalf of their employees to levels that are more commensurate with those of other businesses. For example, in Case No. 2016-00325, the Commission found that North Mercer Water District ("North Mercer) paid, on behalf of its employees, 100 percent of the cost of family health insurance plans, family dental insurance plans, single dental insurance plans, and 100 percent of each employee's life insurance premium.¹² In that proceeding, the Commission excluded from rates 32 percent of the cost of the family

¹⁰ Estill District's Office Manager informed Staff that through this program, which is coordinated by Infinisource Benefit Services, Estill District reimburses each employee up to the first \$1,500 spent by the employee on the \$3,000 deductible included in Estill District's health insurance plan.

¹¹ Although Estill District is a CERS participant, it did not record pension costs pursuant to Governmental Account Standards Board Pronouncement No. 68 on its test-year financial statements.

¹² *Electronic Application of North Mercer Water District for Rate Adjustment made Pursuant to 807 KAR 5:076* (Ky. PSC May 19, 2017) at 2.

health insurance plans,¹³ and it excluded from rates 60 percent of the cost of dental insurance plans.¹⁴ It did not reduce the amount of life insurance premiums.

Likewise, in Case No. 2016-00367, the Commission removed, for ratemaking purposes, the cost of the Nolin Rural Electric Cooperative Corporation's ("Nolin") contributions to a 401(k) plan made on behalf of all employees who qualified and participated in the National Rural Electric Cooperative Association Retirement and Security Program ("NRECARSP"), which is a defined pension benefit plan.¹⁵ The Commission did not remove the 401(k) contributions made by Nolin on behalf of its employees who had been employed longer than 30 years and, therefore, no longer qualified for participation in the NRECARSP. Also in that case, the Commission, finding that it was unreasonable for Nolin to provide 100 percent of the cost of health insurance coverage to employees, ordered that rate recovery by Nolin for the cost of family health insurance coverage be reduced by 32 percent and the rate recovery by Nolin for single health insurance coverage be reduced by 21 percent.¹⁶

In this proceeding, following the methods applied by the Commission to other regulated utilities in recent cases, Staff reduced the cost of family health insurance by 32 percent for ratemaking purposes and reduced the cost of single health insurance and

¹³ *Id.* at 3. The Commission found that the 32 percent reduction was reasonable based on information provided at Bureau of Labor Statistics, Healthcare Benefits, July 22, 2016, Table 4, private industry workers. (<https://www.bls.gov/news.release/pdf/ebs2.pdf>).

¹⁴ *Id.* The Commission found that the 60 percent reduction rate was reasonable based on the Willis Benefits benchmarking Survey, 2015 (https://www.willis.com/documents/publications/Services/Employee_Benefits/20151230_2015WillisBenefitsBenchmarkingSurveyReport.pdf).

¹⁵ *Application of Nolin Rural Electric Cooperative Corporation for a General Rate Increase* (Ky. PSC June 21, 2017) at 10.

¹⁶ *Id.* at 11.

single dental insurance by 21 percent and 60 percent, respectively. Staff makes no finding as to the reasonableness of the amounts of these ratemaking adjustments. Staff's calculations are shown below. Note that Staff included the cost of Estill District's Health Insurance Deductible Reimbursement program in the adjustment and, for this purpose, Staff allocated the cost of the program between the family health plan and single health plan based on the cost of each plan reported for the test-year compared to the total cost of both plans.

	Health Insurance			Dental Insurance	Total Removed
	Family	Single	Total		
Total Premiums	\$66,702	\$19,006	\$85,708	\$ 1,855	
Percent of Health Insurance Total	77.82%	22.18%	100.00%		
Separate \$10,800 of Deductible Reimbursements based on Percentage of Health Insurance	8,405	2,395	10,800		
Total Cost Subject to Adjustment	75,107	21,401		1,855	
Times: Percent Removed by Commission in Prior Cases	32%	21%		60%	
Amount Removed this Proceeding	<u>\$24,034</u>	<u>\$ 4,494</u>		<u>\$ 1,113</u>	<u>\$29,641</u>

(H) Purchased Water. Effective July 19, 2016, Estill District's primary wholesale water provider, Irvine, increased its wholesale rate charged to Estill District from \$2.571 per thousand gallons to \$2.587 per thousand gallons. In the Application, Estill District determined that the new wholesale rate would increase its test-year purchased water costs by \$1,261.¹⁷ Further, Estill District calculated its test-year water loss to be 32.7 percent, or 17.7 percent higher than the 15 percent allowed for ratemaking purposes pursuant to 807 KAR 5:066, Section 6(3). It calculated the cost of

¹⁷ Application, References, at 1 and 2, Reference Item B.

the excess water loss to be \$121,284 and removed this amount from test-year operations.¹⁸ Estill District's two adjustments to test-year Purchased Water expense result in a net decrease of \$120,023 (\$121,284 - \$ 1,261).

During its review, Staff found that Irvine increased its wholesale rate from \$2.587 per thousand gallons to \$3.13 per thousand gallons effective for water service provided on and after July 19, 2017. Staff determined that this increase would result in recoverable purchased water cost of \$682,302 after removing the cost of Estill District's purchase of excess water loss. Accordingly, Staff decreased Estill District's test-year Purchased Water expense by \$1,656 as calculated below.

Test-Year Gallons Purchased (000)	264,869.799
Times: Current Wholesale Rate	<u>\$ 3.13</u>
Total Cost of Water	829,042
Times: Excess Water Loss %	<u>-17.7%</u>
Pro forma Cost of Excess Water Loss to be Removed	(146,741)
Plus: Total Cost of Water	<u>829,042</u>
Amount to Recover through Rates	682,302
Less: Test-Year Paid to Irvine	<u>(683,958)</u>
Adjustment	<u>\$ (1,656)</u>

(l) Purchased Power for Pumping. In the Application, Estill District proposed to reduce Purchased Power for Pumping expense by \$13,139 to remove the cost of electricity purchased to pump the excess water loss discussed above.¹⁹ Staff agrees

¹⁸ *Id.*

¹⁹ *Id.*, at 2, Reference Item C.

with this adjustment and reduced test-year Purchased Power for Pumping expense by \$13,139.

(J) Sales Tax. Estill District is required to bill and collect sales tax on water sold to commercial customers who are not exempt from such tax. The taxes collected are remitted to Kentucky Department of Revenue. Estill District correctly calculates and adds sales tax onto commercial accounts after the account's bill for water service has been calculated using Estill District's tariffed water service rates on file with the Commission.

During the test year, Estill District remitted sales tax to the Kentucky Department of Revenue in the amount of \$6,751. It incorrectly reported this amount as a test-year expense. If this amount remains in Estill District's operating expenses, the sales tax will be improperly recovered from all Estill District customers through the assessment of the water service rates authorized by the Commission in this proceeding. Thus, Staff removed sales tax from Estill District's test-year operating expenses.

(K) Depreciation. Estill District calculated test-year depreciation expense to be \$319,298 using the straight-line method of depreciation pursuant to which an asset is depreciated by dividing its original cost by its estimated useful life, or its depreciable life.²⁰ Due to an error in Estill District's year-end journal entries, test-year depreciation expense was incorrectly reported at \$391,297, instead of \$319,298, in Estill District's 2015 Annual Report.

²⁰ Estill District provided with the Application its "Asset Depreciation Report" labeled with the tab titled "Depreciation Schedules." In this document, total test-year depreciation expense is calculated to be \$319,298 on page 12.

Estill District proposed to decrease test-year depreciation by a net \$137,907 to account for: 1) correction of the error in the year-end journal entries; 2) a change to the depreciable lives assigned to many of its assets; and 3) the addition of depreciation that will accrue on a new main and appurtenances that were placed into service subsequent to the test year.²¹ Staff agrees with the adjustments proposed by Estill District and has decreased test-year depreciation expense by \$137,907. Estill District's proposed change to its depreciable lives and the depreciation of the new main are discussed below.

Change to Depreciable Lives: Generally, 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 historical plant additions, plant retirements, and salvage practices are required to complete a depreciation study. Generally, "small" water utilities, such as Estill District, 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 report published in 1979 by the National Association of Regulatory Utility Commissioners ("NARUC") titled Depreciation Practices for Small Water Utilities ("NARUC Study").²²

²¹ Application, References, Page 3, Reference Item D.

²² 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 Sept. 5, 2012).

The NARUC Study provides a range of average service lives that are assigned to water plant account groups by water utilities across the county 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. Lives outside the NARUC ranges are acceptable when conditions warrant alternative lives.

When evaluating a water district's depreciable lives, the Commission considers an asset group's construction materials, condition, and other factors to determine an appropriate depreciable life that falls either inside or outside of the NARUC ranges. The Commission has assigned lives at the short end and long end of the NARUC ranges when evidence is presented to support such lives. For example, in Case No. 2012-00309,²³ the Commission found that Southern Water and Sewer District's ("Southern") mains should be depreciated using a 50-year life, the shortest life within the NARUC range, because the majority of its main had decayed at a more rapid rate than originally anticipated. In Case No. 2012-00413, the Commission accepted Staff's finding that the depreciable life assigned to Pendleton County Water District's mains should be 75 years because they were thought to be free of noticeable decay and in excellent condition.²⁴

²³ *Application of Southern Water and Sewer District for an Adjustment in Rates Pursuant to the Alternative Rate Filing Procedure for Small Utilities* (Ky. PSC July 12, 2013).

²⁴ *Application of Pendleton County Water District for an Adjustment in Rates Pursuant to the Alternative Rate Filing Procedure for Small Utilities* (Ky. PSC Dec. 20, 2012) at 8.

When no evidence exists to support a specific life that is inside or outside the NARUC ranges, the Commission has used the midpoint of the NARUC ranges to depreciate utility plant. In Case No. 2013-00154, the Commission found that Henderson County Water District (“Henderson District”) was depreciating the cost of some mains using a 40-year life and others using a 50-year life. Even though the 50-year life is within the NARUC range, the Commission found that the depreciable life assigned to all of Henderson District’s mains should be 62.5 years, the midpoint of the NARUC range, since no evidence was presented to support the 40-year or 50-year lives.²⁵

In this proceeding, Estill District, recognizing the Commission’s practice, proposed to change the depreciable lives assigned to its plant account groups to lives that fall within the NARUC ranges. A comparison of Estill District’s current lives, proposed lives, and the NARUC ranges are shown below. Note that all proposed lives are at the NARUC midpoint except for the Structures and Improvements account group and the Tools, Shop, and Garage Equipment account group.

²⁵ *Application of Henderson County Water District for an Alternative Rate Filing* (Ky. PSC Nov. 14, 2013) at Appendix B.

	Estill District		NARUC Range Years
	Depreciable Lives		
	Current Years	Proposed Years	
Structures and Improvement	40, 50	40	35-40
Pumping Equipment	20, 40	20	20
Reservoirs and Tanks	40	45	30-60
Transmission and Distribution Main	40	62.5	50-75
Meters	20, 40	40	35-45
Hydrants	20, 40	50	40-60
Office Furniture and Equipment	7	22.5	20-25
Tools, Shop, and Garage Equipment	7	15	15-20
Power Operated Equipment	10	12.5	10-15

Finding no evidence in this proceeding to indicate that Estill District's plant in service should be depreciated using lives that vary significantly from the NARUC midpoints, Staff finds that the changes to the depreciable lives proposed by Estill District are reasonable. Staff notes that, while the lives proposed for Structures and Improvements and Tools, Shop, and Garage Equipment are not at the NARUC midpoint, they are near enough to the midpoint that a change to the midpoint would not have a material effect on Estill District's depreciation accruals. Staff accepts the depreciable lives proposed by Estill District and finds that these changes will result in a reduction to test-year depreciation of \$107,510, as calculated by Estill District in the Application.²⁶

²⁶ Application, Depreciation Adjustments, Table A, Pages 1-5.

Main Placed into Service Subsequent to the Test Year: In Case No. 2013-00339, the Commission authorized Estill District to construct and finance a water improvement project with a total cost of \$2,360,000.²⁷ In its Order, the Commission found that:

Estill District proposes the installation of approximately 7.5 miles of 3-, 4-, 6-, and 8-inch polyvinyl chloride ("PVC") water line and appurtenances and two booster pumping stations. The proposed project will replace existing water distribution mains and install new distribution mains to extend water service to two customers in the western portion of Estill County, Kentucky. The total cost of the project, including legal, administrative, engineering design and inspection costs and contingencies, is \$2,360,000.

Estill District proposes to finance the total cost of the proposed construction from proceeds of the issuance and sale of \$1,699,000 of revenue bonds to Rural Development ("RD"), an agency of the U.S. Department of Agriculture, and an RD grant of \$661,000.²⁸

In February 2017, Estill District completed the construction of the project. Because construction costs exceeded original estimates and change orders were made to some of the specifications included in the original project, the total cost of the project grew to \$2,610,000, \$250,000 more than the amount estimated at the time the application was filed in Case No. 2013-00339. Additional RD grant proceeds were used to fund the extra cost. The amount of the original RD bonds, \$1,699,000, did not increase.

²⁷ Case No. 2013-00339, *Application of Estill County Water District No. 1 for a Certificate of Public Convenience and Necessity to Construct, Finance, and Increase Rates Pursuant to KRS 278.023* (Ky. PSC Oct. 3, 2013).

²⁸ *Id.* at 1.

In the Application, Estill District proposed to increase test-year depreciation by \$41,603 (\$2,610,000, cost / 62.5, depreciable life) to accrue depreciation on this project in pro forma operations assuming that the entire cost of the project will be depreciated as Transmission and Distribution Main. It applied this method because, at the time it prepared the Application, it had not completed the final accounting for the project. During the final accounting process, the cost of each major component of plant (i.e., main, pumping equipment, structures, meter installations, etc.) constructed as part of the project will be tallied from the numerous entries made to Estill District's Construction Work in Progress ("CWIP") account. The component totals will then be reclassified from CWIP to the proper plant account in Estill District's subsidiary plant ledger and depreciated using the lives approved by the Commission in this proceeding.

Estill District's depreciation of the entire cost of the project as though it were main results in a conservative estimate of the actual depreciation that will accrue on the project, since construction other than main will be assigned a shorter depreciable life than the 62.5-year life used in the Application. For example, Pumping Equipment will be assigned a 20-year life, increasing actual depreciation accruing on its cost when compared to the amount requested for rate recovery by Estill District.

At the time of Staff's review, Estill District had not finalized the accounting for the project's cost. Staff understands that the final accounting will occur as part of Estill District's 2017 Financial Statement Audit that will be performed by an independent Certified Public Accountant. Staff did not attempt to separate the project's total cost into the proper plant subsidiary accounts as part of its review in this proceeding. Staff accepts the depreciation calculated by Estill District for ratemaking purposes as a

conservative estimate of the actual depreciation that will accrue on this project in future reporting periods.

Overall Revenue Requirement and Required Revenue Increase

The Commission has historically applied a Debt Service Coverage (“DSC”) method to calculate the Overall Revenue Requirement of a water district or water association that has outstanding long-term debts. This method allows for recovery of: 1) cash related pro forma operating expenses; 2) depreciation expense, a non-cash operating expense, to provide working capital;²⁹ 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 Estill District’s and Staff’s calculation of Estill District’s Overall Revenue Requirement and Required Revenue Increase using the Commission’s DSC method is shown below.

²⁹ 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 to be used 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>Application</u>	<u>Staff</u>	<u>Ref.</u>
Pro Forma Operating Expenses	\$ 1,613,882	\$ 1,640,711	
Add: Average Annual Debt Payments	342,806	255,320	(1)
Additional Working Capital	<u>47,345</u>	<u>51,064</u>	(2)
Overall Revenue Requirement	2,004,033	1,947,095	
Less: Other Operating Revenue	(65,885)	(78,862)	
Interest Income	<u>(234)</u>	<u>(234)</u>	
Revenue Required from Rates	1,937,914	1,867,998	
Less: Pro forma Present Rate Revenues	<u>(1,533,377)</u>	<u>(1,507,553)</u>	
Revenue Increase	<u>\$ 404,537</u>	<u>\$ 360,445</u>	
Percentage Increase	<u>26.38%</u>	<u>23.91%</u>	

(1) Average Annual Principal and Interest Payments. At the time Estill District filed the Application, it had six outstanding bond series payable to RD, one loan payable to the Kentucky Rural Water Finance Corporation ("KRWFC"), and three loans payable to Citizens Guaranty Bank ("Citizens"). Estill District requested to include the average annual principal and interest payments on all debts for the years 2017, 2018, and 2019 in the amount of \$390,151 in the calculation of its Overall Revenue Requirement. Staff agrees with including the payments to RD and KRWFC, but not to Citizens.

The Citizens loans originated on October 31, 2013, January 29, 2015, and January 24, 2017. Each loan has a four-year term. Estill District stated that it executed each loan to provide cash necessary to pay operating expenses and debt payments when cash flow provided through the collection of operating revenues was not sufficient.

Estill District did not obtain the Commission's authorization to enter into the Citizens loans as required by KRS 278.300.³⁰

In prior cases, the Commission has disallowed rate recovery of loans when their proceeds were used to pay operating expenses, finding that such action would constitute retroactive ratemaking.³¹ Following the Commission's prior rulings, Staff excluded the Citizens principal and interest payments from the calculation of Estill District's average debt payments. As shown below, Staff calculated the three-year average debt payment that Estill District should recover through rates to be \$255,320.

	Principal and Interest Payments			
	2017	2018	2019	Total
RD Bond Series				
1991 A	\$ 30,750	\$ 31,050	\$ 30,800	\$ 92,600
1991 B	5,800	6,175	6,025	18,000
1996	27,835	27,817	27,777	83,429
2000	53,947	54,070	54,147	162,164
2006	49,438	49,840	49,701	148,979
2014	68,186	68,509	68,308	205,003
KRWFC	19,019	18,275	18,491	55,785
Three-Year Total				765,960
Divide by: Three Years				3
Annual Average Payment				<u>\$ 255,320</u>

³⁰ KRS 278.300(1) states, "No utility shall issue any securities or evidences of indebtedness, or assume any obligation or liability in respect to securities or evidences of indebtedness of any other person until it has been authorized so to do by order of the commission." While KRS 278.300(8) exempts debts that have a term of less than two years when certain conditions are met, the loans payable to Citizens have four-year terms, are nonexempt, and required the Commission's approval.

³¹ See Case No. 8690, *Application of Glengarry Utilities, Inc., Glengarry Sewage Treatment Plant, for an Adjustment of Rates Pursuant to the Alternative Procedure for Small Utilities* (Ky. PSC July 8, 1983); and Case No. 9303, *Application of Fordhaven, Inc., for an Adjustment of Rates Pursuant to the Alternative Procedure for Small Utilities* (Ky. PSC Aug. 8, 1985).

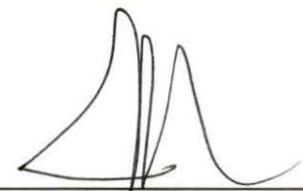
(2) Additional Working Capital. The DSC method, as historically applied by the Commission, includes an allowance for additional working capital that is equal to the minimum net revenues required by a district's lenders that are above its average annual debt payments. In this case, Estill District calculated its allowance for additional working capital to be \$47,345. Staff calculated the allowance for additional working capital to be \$51,064, following the Commission's traditional method as shown below.³²

³² The 2014 RD Bond Resolution requires that Estill District assess rates for water service that produce net revenues that are equal to at least 120 percent of the average annual RD bond principal and interest payments as well as all principal and interest payments on any debts that are on par with the RD bond. The DSC ratio measures an entity's ability to pay its cash-related operating expenses and to pay debt principal and interest. RD calculates the ratio by dividing net revenues by the entity's average annual debt payments. Net revenues are equal to total revenues less cash-related expenses. Depreciation expense, a noncash operating expense, is excluded from the determination of net revenues. As shown below, the required DSC ratio is met with or without including the additional working capital in the calculation of Estill District's Overall Revenue Requirement. Note that the Operation and Maintenance Expense stated below includes the purchased water expense, purchased power expense, and employee health care and dental costs that were removed by Staff for ratemaking purposes in this report.

	<u>With Additional Working Capital</u>	<u>Without Additional Working Capital</u>
Overall Revenue Requirement	\$ 1,947,095	\$ 1,896,031
Less: Operation and Maintenance Expense	(1,554,860)	(1,554,860)
Taxes Other Than Income	<u>(21,709)</u>	<u>(21,709)</u>
Net Revenues	370,525	319,461
Divide by: Average Annual Debt Payments	<u>255,320</u>	<u>255,320</u>
DSC Ratio	<u>145.12%</u>	<u>125.12%</u>

Average Annual Principal and Interest Payments	\$ 255,320
Times: DSC Ratio	<u>120%</u>
Total Net Revenues Required	306,384
Less: Average Annual Principal and Interest Payments	<u>(255,320)</u>
Additional Working Capital	<u>\$ 51,064</u>

Signatures



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 Water and Sewer Branch
 Division of Financial Analysis



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 Water and Sewer Branch
 Division of Financial Analysis

ATTACHMENT
STAFF REPORT, CASE NO. 2017-00176
ESTILL COUNTY WATER DISTRICT

Staff Calculated Monthly Water Rates

5/8 x 3/4-Inch Meter

First	2,000	gallons	\$21.31	Minimum bill
Next	3,000	gallons	10.37	per 1,000 gallons
Next	5,000	gallons	10.12	per 1,000 gallons
Over	10,000	gallons	7.78	per 1,000 gallons

1-Inch Meter

First	5,000	gallons	\$52.43	Minimum bill
Next	5,000	gallons	10.12	per 1,000 gallons
Over	10,000	gallons	7.78	per 1,000 gallons

2-Inch Meter

First	16,000	gallons	\$149.73	Minimum bill
Over	16,000	gallons	7.78	per 1,000 gallons

Bulk Loading Stations			6.75	per 1,000 gallons
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