COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF SANDY HOOK WATER DISTRICT FOR RATE ADJUSTMENT PURSUANT TO 807 KAR 5:076	)))	CASE NO. 2016-00265

NOTICE OF FILING OF COMMISSION STAFF REPORT

Notice is hereby given that, in accordance with the Commission's Order of October 17, 2016, 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 October 17, 2016 Order, Sandy Hook Water District is required to file written comments regarding the findings of Commission Staff no later than 14 days from the date of this report.

Talina R. Mathews

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

DATE NOV 15 2016

cc: Parties of Record

STAFF REPORT

ON

SANDY HOOK WATER DISTRICT

CASE NO. 2016-00265

Sandy Hook Water District ("Sandy Hook") 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 1,194 customers that reside in the Kentucky counties of Elliott and Morgan.[1] On July 19, 2016, Sandy Hook tendered an application ("Application") to the Commission requesting to increase its water service rates pursuant to 807 KAR 5:076. To ensure the orderly review of the Application, the Commission established a procedural schedule by Order dated August 4, 2016. On October 17, 2016, the Commission entered an Order amending the procedural schedule in order to permit Commission Staff ("Staff") additional time to complete the Commission Staff Report on Sandy Hook's Application.

Sandy Hook 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, the calendar year ending December 31, 2015, as required by 807 KAR 5:076, Section 9.

The rates requested by Sandy Hook would increase the monthly bill of a typical residential customer[2] by $10.00, from $42.80 to $52.80, or 23.36 percent, and would generate $161,442 in additional annual water sales revenues, a 25.56 percent increase.

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[1] *Annual Report of Sandy Hook 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-inch x 3/4-inch meter.

Sandy Hook presented financial exhibits in the Application that show how Sandy Hook calculated the amount of the requested revenue increase. The exhibits are summarized below in condensed form.

Pro Forma Operating Expenses	$ 718,855
Plus: Average Annual Principal	
and Interest Payments on Current Debts	102,216
Additional Working Capital	10,221
Overall Revenue Requirement	831,292
Less: Other Operating Revenue	(37,893)
Interest Income	(353)
Revenue Required From Rates	793,046
Less: Pro Forma Present Rate Revenue	(631,604)
Required Revenue Increase	$ 161,442
Percent Increase	25.56%

To determine the reasonableness of the rates requested by Sandy Hook, Staff performed a limited financial review of Sandy Hook'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. Jack Scott Lawless reviewed Sandy Hook's test-year employee retirement expense and depreciation expense. David Foster reviewed all other components of Sandy Hook's revenue requirement. Jason Green reviewed Sandy Hook'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 Sandy Hook's Overall Revenue Requirement is $824,420 and that a $165,363 revenue increase, or 26.82 percent, to pro forma present rate revenues is necessary to generate the Overall Revenue Requirement.

2. Water Service Rates. In the Application, Sandy Hook proposed to increase its monthly water service rates in a manner that was not supported by a cost-of-service study. Finding no basis for the method proposed by Sandy Hook to increase its water rates, Staff increased current rates by the percentage increase in the Staff-recommended revenue requirement, evenly across the board to Sandy Hook's current rates. 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 cost-of-service study. Staff finds that an across-the-board increase is the appropriate means to allocate the increased revenue requirement.

The water rates set forth in Attachment A of this report will produce the additional water revenue to recover the Staff recommended revenue requirement. These rates will increase the monthly cost of 4,000 gallons from $42.80 to $54.28, an increase of 26.82 percent.

3. Depreciable Lives. In this report, Staff finds that the current depreciable lives assigned to some of Sandy Hook's assets should be revised for ratemaking purposes. Any depreciable lives approved by the Commission in this proceeding for ratemaking purposes should be used by Sandy Hook 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

Sandy Hook's Pro Forma Operating Statement for the test year ended December 31, 2015, as determined by Staff, appears below.

	Test Year	Adjustment	(Ref.)	Pro Forma
Operating Revenues				
Sales of Water	$ 631,604	$ (259)	(A)	
		(14,778)	(B)	$ 616,568
Miscellaneous Service Revenues	37,893	14,778	(B)	
		(10,535)	(C)	42,136
Total Operating Revenues	669,497	(10,793)		658,704
Operating Expenses				
Operation and Maintenance Expenses				
Salaries and Wages - Employees	205,627	(15,486)	(D)	
		14,400	(E)	204,541
Employee Pensions and Benefits	46,720	13,100	(F)	
		(3,272)	(D)	56,548
Purchased Power	58,534	(1,673)	(G)	56,861
Materials and Supplies	21,282			21,282
Contractual Services	10,650			10,650
Transportation Expenses	11,037			11,037
Insurance	13,470			13,470
Regulatory Commission Expenses	560			560
Misc. Expense	132,524	(251)	(G)	132,273
Total Operation and Maintenance Expenses	500,404	6,817		507,221
Depreciation Expense	204,093	(22,842)	(H)	181,251
Taxes Other Than Income	14,358	(1,185)	(D)	13,173
Total Operating Expenses	718,855	(17,210)		701,645
Net Operating Income	(49,358)	6,416		(42,942)
Gain on Disposition of Property	0	1,505	(C)	1,505
Interest Income	353			353
Income Available to Service Debt	$ (49,005)	$ 7,921		$ (41,084)

(A) Billing Analysis Adjustment. Sandy Hook provided a billing analysis in its application that was insufficient to determine normalized revenues for the test year. In order to calculate normalized revenues, Staff requested and received customer billing information from Sandy Hook to produce an accurate billing analysis. Adjusting for misread meters and leak adjustments, Staff calculated test-year normalized revenues from retail sales to be $631,345. The test-year normalized billing analysis for Sandy Hook as calculated by Staff is provided in Attachment B.

(B) Water Sales Revenue – Reclassify Collection of Nonrecurring Charges. During the test year, Sandy Hook realized revenues from nonrecurring charges in the amount of $14,778. Sandy Hook improperly reported this revenue with Water Sales Revenues in its 2015 Annual Report. The Uniform System of Accounts ("USoA") requires that this revenue be reported as Other Operating Revenue.[3] Staff reclassified the nonrecurring charge revenue from Water Sales Revenue to Other Operating Revenue as required by the USoA.

(C) Gain on Disposal of Asset. During the test year, Sandy Hook realized a $10,535 gain on the sale of two service trucks and a trailer. Sandy Hook reported the gain on the sale of the trucks and trailer using account 471, Miscellaneous Service Revenues.[4] The USoA requires that this gain be accounted for using the accumulated depreciation account.[5] Through this accounting treatment, the depreciable basis of the replacement asset is adjusted to include the amount of the gain. The gain would then be recognized as a component of depreciation expense recorded on the replacement asset in future periods.

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[3] USoA for Class A&B Water Districts and Associations, pages 92 and 93.

[4] Annual Report at 53.

[5] USoA at 42, Account 180.1. B.

In this case, Staff removed $10,535 from Miscellaneous Service Revenues and amortized the gain over the seven-year depreciation life assigned to the new service vehicles. This method has the same effect on the revenue requirements as the method prescribed by the USoA. To account for the amortization, the amount of the gain recognized in the test year was $1,505.[6]

(D) Costs of Eliminated Employee Position. During the test year, Sandy Hook reported $205,626 for employee wages. For the majority of the test year, Sandy Hook employed five full-time employees and two part-time employees. In September of the test year, one full-time maintenance employee was laid off after Sandy Hook decided that it no longer required the employee's services. Sandy Hook has no immediate plans to replace the employee. Accordingly, Staff made adjustments to reduce Salaries and Wages, Taxes Other Than Income, and Pensions and Benefits to account for the reduction in Sandy Hook's staffing level.

First, Staff removed this employee's $15,486 test-year wage expense from pro forma operations.

Secondly, in accordance with the elimination of the maintenance employee's test-year salary, Staff eliminated test-year FICA taxes incurred for that employee. As calculated below, Staff determined that the decrease to test-year FICA taxes will be $1,185 and decreased test-year Taxes Other Than Income by that amount.

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Gain on Disposal of Property	$ 10,535
Amortize: 7 Years	7
Annual Recognition	$ 1,505

Decrease to Employee Wages Expense	$	(15,486)
Times: 7.65% FICA Tax Rate		7.65%
FICA Tax Rate Decrease	$	(1,185)

Lastly, Sandy Hook provides insurance and retirement benefits to all full-time employees. The total amount expensed for the laid-off maintenance employee during the test year was $3,272. Staff removed this amount from pro forma Employee Pensions and Benefits.

(E) Commissioner Salaries. On October 22, 2015, Elliott County Fiscal Court authorized Sandy Hook to begin compensating its Water District Board of Commissioners for their service. Currently, Sandy Hook has five Commissioners that serve on its Board and each are compensated $300 a month, or $3,600 annually. Staff annualized the Commissioners salary and increased Salaries and Wage Expense by $14,400.[7]

(F) Retirement Expense Pursuant to GASB 68. Sandy Hook provides pension benefits and post-retirement health care benefits to its employees by participating in the County Employee Retirement System ("CERS"). As a participating member, Sandy Hook is required to contribute a percentage of its employee wages to

[7]

Monthly Wage Expense for 5 Commissioners	$	1,500
Times: 12 Months		12
Pro Forma Commissioners Wage Expenses		18,000
Less: Test Year Expense		(3,600)
Increase	$	14,400

CERS. The table below summarizes the CERS contribution rates for each of the previous six fiscal years beginning July 1.

Fiscal Year Beginning July 1,	Employer Contribution Rate
2011	16.93%
2012	18.96%
2013	19.55%
2014	18.89%
2015	17.67%
2016	17.06%

In its test-year audit report, the amount of Sandy Hook's test-year contributions to CERS on behalf of its employees is stated at $35,697;[8] however, during Staff's review,

[8] *See* Sandy Hook Water District Audit of Financial Statements for the Year Ended December 31, 2015, prepared by Morgan-Franklin, LLC, and dated March 23, 2016, at 21.

Sandy Hook provided source documents demonstrating that its actual test-year contributions totaled $31,100.[9]

Prior to the test year, Sandy Hook was required to report annual pension costs and post-retirement health care costs pursuant to Governmental Accounting Standards Board ("GASB") Statement No. 27 ("GASB 27"). GASB 27 required that Sandy Hook report its CERS contributions as employee retirement expense. GASB 27 did not require that Sandy Hook report a liability on its financial statements for a portion of either CERS's Net Pension Liability ("NPL") or CERS's underfunded post-retirement health care costs.

The accounting and reporting requirements for the CERS pension benefit changed during the test year due to the passage and implementation of GASB 68. The

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[9] The table below summarizes the test-year contributions for each month of the test year.

Test-Year 2015	Retirement Wages	CERS Contribution Rate	Contributions to CERS
December	$ 12,594	17.06%	$ 2,148
November	18,963	17.06%	3,235
October	12,852	17.06%	2,193
September	14,566	17.06%	2,485
August	18,169	17.06%	3,100
July	13,291	17.06%	2,267
June	16,980	17.67%	3,000
May	14,727	17.67%	2,602
April	13,428	17.67%	2,373
March	17,774	17.67%	3,141
February	13,057	17.67%	2,307
January	12,727	17.67%	2,249
	$ 179,128		$ 31,100

accounting for post-retirement health care costs did not change. Beginning in the test year, GASB 68 requires that Sandy Hook report for pensions:

1) a charge against Retained Earnings to account for the cumulative effect of switching from GASB 27 to GASB 68;

2) Sandy Hook's proportionate share of the CERS NPL;

3) Deferred Inflow of Resources and Deferred Outflow of Resources related to pensions; and

4) Annual pension expense that includes:

a. pension contributions to CERS during the reporting period that were made prior to the NPL's measurement date;

b. the amortization of Sandy Hook's proportionate share of Deferred Outflow of Resources and Deferred Inflow of Resources related to pensions;

c. Sandy Hook's proportionate share of the plan's actuarially determined annual pension expense; and

d. the increase or decrease that occurs during the reporting period to the amount of Sandy Hook's proportionate share of the CERS NPL.

To implement GASB 68 during the test year, Sandy Hook relied on the results of the CERS actuarial valuation for the fiscal year ended June 30, 2014, because the actuarial valuation for June 30, 2015, had not been completed at the time Sandy Hook closed its books of original entry in preparation for the audit of its test-year financial statements. Using the 2014 valuation, Sandy Hook reported the following pursuant to GASB 68.[10]

NPL	$	219,000
Retained Earnings		(225,000)
Deferred Outflows		35,697
Deferred Inflows		24,000
Retirement Expense		18,000

In Case No. 2016-00163,[11] after considering the effects of GASB 68 on Marion County Water District's ("Marion District") test-year operations, the Commission found that, except for the NPL, the difference between the amounts reported for retirement costs pursuant to GASB 68 and those that would have been reported pursuant to GASB 27 should be accounted for as a regulatory asset as allowed by GASB 62. The Commission found that its method would mitigate the impact of GASB 68 on Marion District's Balance Sheet and that it would smooth the level of annual retirement expense reported by Marion District in future reporting periods because the annual expense would always be equal to the amount of Marion District's contributions to CERS, which historically have been fairly constant. Staff finds that the Commission's method of accounting for retirement costs will provide the same benefits to Sandy Hook and should, therefore, be applied in this proceeding.

Application of the Commission's method to Sandy Hook's audited retirement costs requires the following journal entry.

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[10] Note that Sandy Hook's implementation of GASB 68 resulted in its reporting test-year retirement expense in the amount of $18,000, or $13,100 less than the amount of its actual test-year contributions to CERS and $17,697 less than the incorrect amount stated in the audit report for the test-year contributions.

[11] *Alternative Rate Adjustment Filing of Marion County Water District* (PSC, Ky. Nov. 10, 2016).

	Dr.	Cr.
Regulatory Asset	$ 219,000	
Deferred Inflows	24,000	
Retirement Expense	17,697	
Retained Earnings		$ 225,000
Deferred Outflows		35,697

The above journal entry results in the audited account balances shown below.

Regulatory Asset	$ 219,000
NPL	219,000
Retained Earnings	
Deferred Outflows	
Deferred Inflows	
Retirement Expense	35,697

Note that Staff's journal entry applies the Commission's method to Sandy Hook's audited retirement accounts, which include the aforementioned error that incorrectly states Sandy Hook's test-year CERS contributions at $35,697. Because of this error, the audited balance of the retirement expense resulting from application of the Commission's method in the amount of $35,697 as shown above is also incorrect. Correction of the audit error restates the test-year expense calculated using the Commission's method to the amount of the actual test-year contributions, $31,100. Accordingly, Staff increased the test-year retirement expense reported by Sandy Hook pursuant to GASB 68 in the amount of $18,000 by $13,100 to $31,100.

Staff notes that, while paragraph 48 of GASB 68 required that Sandy Hook use the actuarial valuation for the fiscal year ended June 30, 2015, to implement GASB 68 during the test year, Sandy Hook's improper use of the June 30, 2014 actuarial valuation has no effect on either the amount of Sandy Hook's test-year retirement expense as adjusted by Staff pursuant to GASB 62 or the amount of Sandy Hook's overall revenue requirement found appropriate in this proceeding. Therefore, Staff did not prepare journal entries to show the effects on Sandy Hook's financial statements of using the 2015 actuarial valuation to implement GASB 68.

(G) Purchased Power, Water Loss. Pursuant to 807 KAR 5:066, Section (6)3, Sandy Hook's water loss is limited to 15 percent for ratemaking purposes unless it can demonstrate that an alternative level is reasonable. Sandy Hook reported test-year water loss at 18.51 percent,[12] or 3.51 percent above the amount allowed. It did not attempt to demonstrate that the amount of the excess water loss is reasonable. To comply with the regulation, Staff removed the expenses incurred during the test year to pump and treat the water loss that was in excess of the allowable amount. Staff's calculations are shown below.

	Test Year	Excess Water Loss Percentage	Decrease
Purchased Power for Pumping	$ 47,678	-3.51%	$ (1,673)
Chemicals	7,156	-3.51%	(251)

[12] Annual Report at 61.

(H) Depreciation. Sandy Hook reported test-year depreciation expense in the amount of $204,093.[13] It calculated the expense using the whole-life, straight-line method, pursuant to which an asset's depreciable basis is divided by its estimated useful life. Staff decreased the test-year expense by $22,842 to account for Staff's proposed change to the depreciable lives assigned to wells and mains and to account for depreciation of the cost of a new well that was placed into service in February 2016 as part of the "Project 11 Expansion." Staff's adjustment is detailed below.

Adjustment for Change to Depreciable Lives	$ (31,175)
Adjustment for Post-Test-Year Well Addition	8,333
Total Adjustment	$ (22,842)

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 historic plant additions, plant retirements, and salvage practices are required to complete a depreciation study. Generally, "small" water utilities, such as Sandy Hook, 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

[13] Sandy Hook provided a depreciation schedule as part of the Application. Test-year depreciation calculated on this schedule totaled $190,849. This schedule was unaudited and did not include depreciation on any portion of the "Project 11 Expansion." On August 5, 2016, Sandy Hook filed into the record of this proceeding an audited depreciation schedule that included $13,243 for a full year of depreciation on the portion of the "Project 11 Expansion" that had been placed into service in August 2015. The total amount of depreciation expense shown on the audited schedule is $204,093 ($190,849 + $13,244).

In August 2015, Sandy Hook added eight new residential customers to its distribution system through the "Project 11 Expansion." Although Staff includes a full year of depreciation expense and debt service payments in Sandy Hook's pro forma operations for this project, Staff includes only four full months of actual test-year water revenues and water production and delivery costs related to the eight new customers in Sandy Hook's pro forma operations. Adjustments to annualize these test-year revenues and expenses would not be material to Sandy Hook's pro forma operations and were not made by Staff.

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").[14]

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,[15] the Commission found that Southern Water and Sewer District's mains should be depreciated using a 50-year life, the shortest life within the NARUC range, because

[14] 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).

[15] *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).

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.[16]

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 some main 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 mid-point of the NARUC range, since no evidence was presented to support the 40-year or 50-year lives.[17]

In this proceeding, Staff discussed with Sandy Hook's Superintendent the overall condition of Sandy Hook's utility plant in service. During those discussions, the Superintendent stated that its water treatment plant and water distribution plant had been properly installed and maintained and that they show wear and tear that is typical, or average, for their age. Based on its discussions with the Superintendent, Staff finds that Sandy Hook's plant in service should be depreciated using the mid-point of the NARUC ranges, as there is no evidence to support lives that are either at the short end or the long end of the NARUC ranges.

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[16] Commission Staff Report on Pendleton County Water District (filed Oct. 29, 2012) at 10.

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

The lives assigned to each of Sandy Hook's plant account groups during the test year, except for wells and mains, are close enough to the NARUC mid-points that adjustments to the mid-points would not have a material effect on Sandy Hook's test-year depreciation expense. Accordingly, Staff adjusted only the lives assigned to wells and mains as discussed below.

During the test year, Sandy Hook depreciated the cost of wells using a 35-, 40-, or 50-year life. The NARUC range for wells is 25 to 35 years. Staff adjusted the life assigned to all wells to 30 years. Sandy Hook depreciated the costs of mains using either a 40- or 50-year life. The NARUC range for mains is 50 to 75 years. Staff adjusted the life assigned to all mains to 62.5 years. The effect of Staff's adjustments on test-year depreciation expense is shown below.

Account	Depreciable Basis	Divide by: Depreciable Life	Pro Forma Depreciation	Less: Test Year	Adjustment
Wells	$ 78,896	30	$ 2,630	$ (1,922)	$ 708
Mains	7,945,362	62.5	127,126	(159,009)	(31,883)
Total					$ (31,175)

Post-Test-Year Plant Addition. As part of the "Project 11 Expansion," in February 2016, Sandy Hook placed a new well into service that cost $250,000. Depreciation of this asset is known and measurable and may be included in Sandy Hook's pro forma operations. Staff calculated annual depreciation on the new well to be $8,333 as follows:

"Project 11 Expansion" Cost of Well	$	250,000
Divide by: Depreciable Life		30
Adjustment	$	8,333

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;[18] 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 Sandy Hook's and Staff's calculations of Sandy Hook's Overall Revenue Requirement and Required Revenue Increase using the DSC method is shown below.

[18] 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).

	Sandy Hook	Staff	(Ref.)
Pro Forma Operating Expenses	$ 718,855	$701,645	
Plus: Average Annual Principal			
and Interest Payments	102,216	102,312	(1)
Additional Working Capital	10,221	20,462	(2)
Overall Revenue Requirement	831,292	824,420	
Less: Other Operating Revenue	(37,893)	(42,136)	
Interest Income	(353)	(353)	
Revenue Required From Rates	793,046	781,931	
Less: Pro Forma Present Rate Revenue	(631,604)	(616,568)	
Required Revenue Increase	$ 161,442	$165,363	
Percent Increase	25.56%	26.82%	

(1) Average Annual Principal and Interest Payments. Sandy Hook currently has six outstanding bond series payable to the United States Department of Agriculture Rural Development ("RD"). In its Application, Sandy Hook requested recovery of the three-year average annual principal and interest payments due in 2016, 2017, and 2018 in the amount of $102,216. Staff finds, as shown below, that the average annual debt payment to be included in the calculation of Sandy Hook's Overall Revenue Requirement should be equal to the five-year average of the years 2016 through 2020, not the three-year average of the years 2016 through 2018 proposed by Sandy Hook. This five-year average of $102,312 allows Sandy Hook recovery of the debt payments

that will be made during the anticipated life of the rates authorized by the Commission in this proceeding.[19]

Five-Year Average of Debt Payments	
Year	Annual Debt Payment
2016	$ 102,191
2017	101,860
2018	102,916
2019	101,871
2020	102,723
Five-Year Total	511,561
Divide by: 5 years	5
Average Annual Principal and Interest Payment	$ 102,312

(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 addition to depreciation expense, Sandy Hook requested recovery of an allowance for working capital that is equal to 110 percent of its average annual debt payments.

RD requires that Sandy Hook charge rates that produce net revenues that are at least 120 percent of its average annual debt payments. Following the Commission's

[19] Generally, the anticipated life of a utility's service rates is based on the frequency of the utility's previous rate case filings, but 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.

A review of the Commission's electronic docket system shows that, while Sandy Hook last adjusted its monthly water service rates pursuant to KRS 278.023 in 2013, in Case No. 2013-00379, Application of Sandy Hook Water District for a Certificate of Public Convenience and Necessity to Construct, Finance and Increase Rates Pursuant to KRS 278.023 (Ky. PSC. Nov. 14, 2013), Sandy Hook has not requested a general rate adjustment pursuant to either 807 KAR 5:076 or 807 KAR 5:001, Section 16, in at least 11 years. Therefore, Staff finds that the anticipated life of the rates approved in this proceeding is five years.

historic practice, Staff calculated Sandy Hook's allowance for additional working capital, based on a DSC ratio of 1.20, to be $20,462, as shown below.[20] Staff included this amount in the calculation of Sandy Hook's Overall Revenue Requirement.

Average Annual Principal and Interest	$ 102,312
Times: DSC Ratio	120%
Total Net Revenues Required	122,775
Less: Average Annual Principal and Interest Payments	(102,312)
Additional Working Capital	$ 20,462

[20] Inclusion of the additional working capital in Sandy Hook's revenue requirement is not necessary for it to earn revenues that meet the minimum DSC ratio required by its lenders. As depreciation is a noncash item, it is excluded from the ratio calculation, which is actually a measure of cash flow. As shown below, Sandy Hook's minimum DSC ratio is met with or without the inclusion of additional working capital.

	With Additional Working Capital	Without Additional Working Capital
Overall Revenue Requirement	$ 824,420	$ 803,958
Less: Operating and Maintenance Expense	(507,221)	(507,221)
Taxes/ PSC Assessment	(13,173)	(13,173)
Net Revenues	304,025	283,563
Divided by: Average Annual Debt Payments	102,312	102,312
DSC Ratio	297%	277%

Signatures

Prepared by: David P. Foster
Water and Sewer Revenue
Requirements Branch
Division of Financial Analysis

Prepared by: Jason Green
Water and Sewer Rate Design Branch
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Revenue Requirements Branch
Division of Financial Analysis

ATTACHMENT A

STAFF REPORT, CASE NO. 2016-00265

Staff Recommended Monthly Water Rates

5/8-Inch Meter

First	2,000 gallons	$ 30.44 Minimum bill
Next	8,000 gallons	11.92 per 1,000 gallons
Next	40,000 gallons	10.65 per 1,000 gallons
All Over	50,000 gallons	9.38 per 1,000 gallons

1-Inch Meter

First	5,000 gallons	$ 66.20 Minimum bill
Next	5,000 gallons	11.92 per 1,000 gallons
Next	40,000 gallons	10.65 per 1,000 gallons
All Over	50,000 gallons	9.38 per 1,000 gallons

1 1/2-Inch Meter

First	10,000 gallons	$ 125.80 Minimum bill
Next	40,000 gallons	10.65 per 1,000 gallons
All Over	50,000 gallons	9.38 per 1,000 gallons

2-Inch Meter

First	20,000 gallons	$ 232.30 Minimum bill
Next	30,000 gallons	10.65 per 1,000 gallons
All Over	50,000 gallons	9.38 per 1,000 gallons

3-Inch Meter

First	30,000 gallons	$ 338.80 Minimum bill
Next	20,000 gallons	10.65 per 1,000 gallons
All Over	50,000 gallons	9.38 per 1,000 gallons

ATTACHMENT B

STAFF REPORT, CASE NO. 2016-00265

Staff Calculated Billing Analysis

Billing Analysis for: Sandy Hook Water District
Test Period From: December 2015

Meter Size	Gallons Sold	Revenue
5/8 inch	48,553,858	582,466.40
1 inch	1,851,600	16,796.76
1.5 inch	206,500	1,917.00
2 inch	364,800	17,714.88
3 inch	872,100	12,450.24
Totals	51,848,858	$631,345.28

SANDY HOOK WATER DISTRICT
Test Period From: December 2015
Meter Size: 5/8"

	USAGE	BILLS	GALLONS	FIRST 2,000	NEXT 8,000	NEXT 40,000	OVER 50,000	TOTAL
FIRST	2,000	5275	4,764,507	4,764,507				4,764,507
NEXT	8,000	8880	36,435,032	17,760,000	18,675,032			36,435,032
NEXT	40,000	353	5,457,540	706,000	2,824,000	1,927,540		5,457,540
OVER	50,000	30	1,896,779	60,000	240,000	1,200,000	396,779	1,896,779
		14538	48,553,858	23,290,507	21,739,032	3,127,540	396,779	48,553,858

REVENUE BY RATE INCREMENT

		BILLS	GALLONS	RATE	REVENUE
FIRST	2,000	14538	23,290,507	$24.00	$348,912.00
NEXT	8,000		21,739,032	9.40	204,346.90
NEXT	40,000		3,127,540	8.40	26,271.34
OVER	50,000		396,779	7.40	2,936.16
	TOTAL	14538	48,553,858		$582,466.40

SANDY HOOK WATER DISTRICT
Test Period From: December 2015
Meter Size: 1"

	USAGE	BILLS	GALLONS	FIRST 5,000	NEXT 5,000	NEXT 40,000	OVER 50,000	TOTAL
FIRST	5,000	26	55,700	55,700				55,700
NEXT	5,000	19	139,200	95,000	44,200			139,200
NEXT	40,000	33	814,700	165,000	165,000	484,700		814,700
OVER	50,000	7	842,000	35,000	35,000	280,000	492,000	842,000
		85	1,851,600	350,700	244,200	764,700	492,000	1,851,600

REVENUE BY RATE INCREMENT

		BILLS	GALLONS	RATE	REVENUE
FIRST	5,000	85	350,700	$52.20	$4,437.00
NEXT	5,000		244,200	9.40	2,295.48
NEXT	40,000		764,700	8.40	6,423.48
OVER	50,000		492,000	7.40	3,640.80
	TOTAL	85	1,851,600		$16,796.76

SANDY HOOK WATER DISTRICT
Test Period From: December 2015
Meter Size: 1 1/2"

	USAGE	BILLS	GALLONS	FIRST 10,000	NEXT 40,000	OVER 50,000	TOTAL
FIRST	10,000	0	0	0			0
NEXT	40,000	12	206,500	120,000	86,500		206,500
OVER	50,000	0	0	0	0	0	0
		12	206,500	120,000	86,500	0	206,500

REVENUE BY RATE INCREMENT

		BILLS	GALLONS	RATE	REVENUE
FIRST	10,000	12	120,000	$99.20	$1,190.40
NEXT	40,000		86,500	8.40	726.60
OVER	50,000		0	7.40	0.00
	TOTAL	12	206,500		$1,917.00

SANDY HOOK WATER DISTRICT
Test Period From: December 2015
Meter Size: 2"

	USAGE	BILLS	GALLONS	FIRST 10,000	NEXT 40,000	OVER 50,000	TOTAL
FIRST	10,000	94	329,600	329,600			329,600
NEXT	40,000	2	35,200	20,000	15,200		35,200
OVER	50,000	0	0	0	0	0	0
		96	364,800	349,600	15,200	0	364,800

REVENUE BY RATE INCREMENT

		BILLS	GALLONS	RATE	REVENUE
FIRST	10,000	96	349,600	$183.20	$17,587.20
NEXT	40,000		15,200	8.40	127.68
OVER	50,000		0	7.40	0.00
	TOTAL	96	364,800		$17,714.88

SANDY HOOK WATER DISTRICT
Test Period From: December 2015
Meter Size: 3"

	USAGE	BILLS	GALLONS	FIRST 10,000	NEXT 40,000	OVER 50,000	TOTAL
FIRST	10,000	0	0	0			0
NEXT	40,000	27	817,100	270,000	547,100		817,100
OVER	50,000	1	55,000	10,000	40,000	5,000	55,000
		28	872,100	280,000	587,100	5,000	872,100

REVENUE BY RATE INCREMENT

		BILLS	GALLONS	RATE	REVENUE
FIRST	10,000	28	280,000	$267.20	$7,481.60
NEXT	40,000		587,100	8.40	4,931.64
OVER	50,000		5,000	7.40	37.00
	TOTAL	28	872,100		$12,450.24

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