COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF SOUTH 641 WATER DISTRICT) FOR RATE ADJUSTMENT PURSUANT TO) 807 KAR 5:076)

NOTICE OF FILING OF COMMISSION STAFF REPORT

Notice is hereby given that, in accordance with the Commission's Order of September 2, 2015, the attached report containing the findings of Commission Staff ("Staff") regarding the Applicant's proposed rate adjustment has been filed in the record of the above-styled proceeding. Pursuant to paragraphs 2 and 4 of the Commission's September 2, 2015 Order, South 641 Water District is required to file written comments regarding the findings of Staff no later than November 23, 2015.

CASE NO.

2015-00278

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

DATED NOV 0 9 2015

cc: Parties of Record

STAFF REPORT ON

SOUTH 641 WATER DISTRICT

CASE NO. 2015-00278

South 641 Water District ("South 641") provides sewer service to approximately 220 customers¹ and water service to approximately 362 customers residing in Calloway County, Kentucky.² On August 10, 2015, South 641 tendered an application to the Commission ("Application") pursuant to 807 KAR 5:076 requesting to adjust its sewer service rates through a phase-in plan. It did not request to adjust water service rates.

South 641's current sewer tariff was approved by the Commission in Case No. 2007-00443,³ and includes the volumetric rate structure shown below that is applied to all sewer customers who receive water service from South 641.

Monthly Sewer Rate	
Customer Charge	\$8.99 Minimum Bill
Per 1,000 Gallons of Water Sold	2.14 per 1,000 Gallons

South 641's tariff also includes a monthly flat rate of \$19.69 that is charged to four sewer customers who do not receive water service from South 641. The amount of the flat rate was determined by applying South 641's volumetric rates shown above to 5,000 gallons of assumed monthly water usage by each of these customers (\$19.69 = $$8.99 + (5 \times $2.14)$).

¹ Annual Report of South 641 Water District (Wastewater Division) to the Public Service Commission for the Calendar Year Ended December 31, 2014 ("2014 Annual Report") at 25.

² Annual Report of South 641 Water District (Water Division) to the Public Service Commission for the Calendar Year Ended December 31, 2014 at 12 and 43.

³ Case No. 2007-00443, Application of South 641 Sewer District for an Adjustment of Rates Pursuant to the Alternative Rate Filing Procedure for Small Utilities (Ky. PSC Dec. 20, 2007).

In its Application, South 641 proposes to increase its volumetric rates and flat rate in two phases over a one-year period in order to ultimately increase annual sewer sales revenues by \$87,029, or 207.73 percent.⁴ South 641 also proposes to decrease the assumed water usage that is used to calculate the flat sewer rate from 5,000 gallons to 4,000 gallons. The following table summarizes the impact of South 641's phase-in plan on a typical customer's monthly bill.

⁴ Pursuant to the proposed rate phase-in plan, Phase 1 rates would become effective immediately upon the Commission's approval and would remain in effect for one year. Phase 1 rates would increase test-year revenues by \$43,513, or 103.86 percent. Phase 2 rates would become effective one year from the effective date of the Phase 1 rates and would thereafter remain in effect until ordered changed by the Commission. Phase 2 rates would increase Phase 1 revenues by \$43,516, or 50.95 percent. As shown in the table below, the cumulative increase to test-year revenues from the phase-in plan is \$87,029, or 207.73 percent.

	Ann	ual Sewer	An	nual Sewer			
	Sa	les Prior	Sales Subsequent		Revenue		
	to	Increase	to Increase		Increase		
Phase 1	\$	41,896	\$	85,409	\$	43,513	
Phase 2		85,409		128,925		43,516	
Total Revenue	Incre	ase				87,029	
Divide by: Test-Year Revenue				41,896			
Total Percentage Increase					2	207.73%	

Impact of Volumetric Rate Phase-In on a Customer Purchasing 5,000 Gallons of Water

	Monthly		Incre	ease
		Bill	\$\$\$	Percent
Current Rates	\$	19.69		
Phase 1 Rates		40.18	\$ 20.49	104.06%
Phase 2 Rates	-	60.61	20.43	50.85%
Cumulative Effect			\$ 40.92	207.82%

Impact of Flat Rate Phase-In

	Monthly			Incre	ease	
		Bill		\$\$\$	Percent	
Current Rate	\$	19.69				
Phase 1 Rate		35.81	\$	16.12	81.87%	
Phase 2 Rate	<u></u>	54.02	_	18.21	50.85%	
Cumulative Effect			\$	34.33	174.35%	

In support of its requested rate phase-in plan, South 641 provided financial exhibits with its Application that were based on the test year ended December 31, 2014. These exhibits are shown below in condensed form and demonstrate that a revenue increase of \$87,027, or 207.73 percent, is warranted.

Pro Forma Operating Expenses	\$ 115,668
Plus: Average Annual Principal and Interest Payments	12,638
Additional Working Capital	 2,528
Overall Revenue Requirement	130,834
Less: Other Operating Revenue	(1,635)
Interest Income	 (277)
Revenue Required From Rates	128,922
Less: Pro Forma Present Rate Service Revenues	 (41,895)
Required Revenue Increase	\$ 87,027
Pecent Increase	 207.73%

Staff performed a limited financial review of South 641's Sewer Division's operations for the test year ended December 31, 2014, to determine the reasonableness of the proposed sewer rate phase-in plan. Because the Sewer Division's test-year operations included numerous transactions that were recorded to account for an allocated portion of the cost of employees, equipment, supplies, and office facilities that were shared with the Water Division, Staff's field work was expanded to also include many Water Division transactions.

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 or immaterial discrepancies were not pursued and were not addressed.

Staff's findings are summarized in this report. Ariel Turnbull reviewed the calculation of South 641's Overall Revenue Requirement. Eddie Beavers reviewed reported revenues and rate design.

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Summary of Findings

1. <u>Overall Revenue Requirement and Required Revenue Increase for the</u> <u>Sewer Division</u>. By applying the Debt Service Coverage ("DSC") Method, as generally accepted by the Commission, Staff found that South 641's Sewer Division can justify an Overall Revenue Requirement of \$117,726 and that a sewer revenue increase of \$74,122, or 177.79 percent, above pro forma present-rate sewer revenues is necessary to generate the Overall Revenue Requirement.

2. <u>Sewer Service Rates</u>. South 641 proposes an across-the-board increase in general sewer service rates and that this increase be phased in using two steps, with the first increase to occur at the time the Commission rules on the requested increase. The second step will occur one year after the final Order is issued in this proceeding. The Commission has previously found that an across-the-board percentage increase is an appropriate and equitable method to increase rates in the absence of a cost-ofservice study. The Commission has also found that a phased-in approach to a large rate increase is an appropriate way to manage gradualism in an effort to lessen rate shock.

The rates set forth in Attachment A of this report are based upon the revenue requirement as calculated by Staff and will produce revenues of at least \$115,970 from general sewer service rates, an approximate 177.79 percent increase.⁵ In its approach, Staff has followed South 641's proposed two-phase increase to rates. Phase 1 rates will increase a typical residential customer's bill from \$19.69 to \$37.18, an increase of

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⁵ This level of General Sewer Service Revenues, along with test-year Other Operating Revenues and Interest Income amounts, will produce Staff's recommended Overall Revenue Requirement.

\$17.49, or 88.83 percent.⁶ Phase 2 rates will increase the Phase 1 monthly bill from \$37.18 to \$54.67, an increase of \$17.49, or 47.04 percent.⁷ South 641's current tariffed flat rate is calculated on a customer's average of 5,000 gallons of water usage, while in its Application, South 641 based the proposed flat rate on an average of 4,000 gallons of water usage. Staff concurs with South 641's revision to 4,000 gallons of water usage as proposed. The rates proposed by Staff are based on an average of 4,000 gallons of water usage.

3. <u>Depreciation</u>. The Commission has historically relied on the *O&M Guide* for the Support of Rural Water & Wastewater Systems⁸ ("O&M Guide") to evaluate the reasonableness of the depreciation practices of small sewer utilities. As noted in its Application, South 641 used depreciable lives to calculate test-year depreciation expense on certain sewer asset groups that are at variance with the lives prescribed by the O&M Guide. South 641 requested to adjust these lives to conform to the O&M guide for ratemaking purposes.

As discussed in Attachment B of this report, the Commission's Engineering Division staff found that the adjusted lives proposed by South 641 should be accepted for ratemaking purposes. Further, since these lives better match the life expectancy of South 641's sewer assets, Staff finds that they should also be used by South 641 for accounting purposes in all future reporting periods. No adjustment to accumulated

⁶ Staff uses an average of 5,000 gallons of water usage in calculating the average increase for the utility's customers. It should be noted that South 641 has altered its average usage to 4,000 gallons of water usage to calculate its proposed Flat Rate. Staff's calculation on the average effect on the customer's bill should be used for comparison only.

⁷ The cumulative increase on a typical customer's bill will be \$34.98, or 177.65 percent.

⁸ Commission on Rural Water, *O&M Guide for the Support of Rural Water & Wastewater Systems* (1974).

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

Pro Forma Operating Statements

The Pro Forma Operating Statement prepared by Staff for South 641's Sewer Division based on test-year operations ended December 31, 2014, is shown below:

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Administrative and General Salaries 5,441 1,334 (B) (1,093) (C) 5,682 Office Supplies 3,817 (416) (C) 3,401 Insurance Expenses 3,081 (136) (C) (C) Employee Pensions and Benefits 338 (54) (C) 284 Regulatory Commission Expense 287 287 287 Transportation Expenses 3,159 (253) (C) 2,906 Miscellaneous General Expenses 24,546 (23,961) (B) Total Operation and Maintenance Expenses 93,793 (24,032) 69,761 Taxes Other Than Income 4,456 1,811 (B) (C) (C) (A,456) (D) 1,522 Depreciation 42,208 (1,611) (E) (2,685) (F) 37,912 Total Operating Expenses 140,457 (31,262) 109,195 109,195 Net Operating Income (98,500) 32,632 (65,868) (65,868) Interest and Dividend Income 277 277 277 277 <td>Miscellaneous Customer Accounts Expenses</td> <td>646</td> <td></td> <td></td> <td>646</td>	Miscellaneous Customer Accounts Expenses	646			646
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Transportation Expenses 3,159 (253) (C) 2,906 Miscellaneous General Expenses 24,546 (23,961) (B) (B) Total Operation and Maintenance Expenses 93,793 (24,032) 69,761 Taxes Other Than Income 4,456 1,811 (B) (B) Depreciation 42,208 (1,611) (E) Total Operating Expenses 140,457 (31,262) 109,195 Net Operating Income (98,500) 32,632 (65,868) Interest and Dividend Income 277 277 277	Regulatory Commission Expense	287			287
Miscellaneous General Expenses 24,546 (23,961) (B) Total Operation and Maintenance Expenses 93,793 (24,032) 69,761 Taxes Other Than Income 4,456 1,811 (B) Depreciation 42,208 (1,611) (E) Total Operating Expenses 140,457 (31,262) 109,195 Net Operating Income (98,500) 32,632 (65,868) Interest and Dividend Income 277 277		3,159	(253)	(C)	2,906
(86) (C) 499 Total Operation and Maintenance Expenses 93,793 (24,032) 69,761 Taxes Other Than Income 4,456 1,811 (B) (289) (C) Depreciation 42,208 (1,611) (E) (2685) (F) 37,912 Total Operating Expenses 140,457 (31,262) 109,195 Net Operating Income (98,500) 32,632 (65,868) Interest and Dividend Income 277 277 277	Miscellaneous General Expenses	24,546		(B)	()-10
Taxes Other Than Income 4,456 1,811 (B) Depreciation (289) (C) Depreciation 42,208 (1,611) (E) Total Operating Expenses 140,457 (31,262) 109,195 Net Operating Income (98,500) 32,632 (65,868) Interest and Dividend Income 277 277				S	499
Taxes Other Than Income 4,456 1,811 (B) Depreciation (289) (C) Depreciation 42,208 (1,611) (E) Total Operating Expenses 140,457 (31,262) 109,195 Net Operating Income (98,500) 32,632 (65,868) Interest and Dividend Income 277 277	Total Operation and Maintenance Expenses	93 793	(24 032)		69 761
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Interest and Dividend Income (2,685) (F) 37,912 140,457 (31,262) 109,195 Net Operating Income (98,500) 32,632 (65,868) Interest and Dividend Income 277 277	Depreciation	42 208			1,022
Total Operating Expenses 140,457 (31,262) 109,195 Net Operating Income (98,500) 32,632 (65,868) Interest and Dividend Income 277 277	Depresation	42,200			37 912
Net Operating Income (98,500) 32,632 (65,868) Interest and Dividend Income 277 277			(2,000)	6.1	07,012
Interest and Dividend Income 277 277	Total Operating Expenses	140,457	(31,262)		109,195
	Net Operating Income	(98,500)	32,632		(65,868)
Income Available to Service Debt \$ (98,223) \$ 32,632 \$ (65,591)	Interest and Dividend Income	277			277
	Income Available to Service Debt	\$ (98,223)	\$ 32,632		\$ (65,591)

(A) <u>Billing Analysis Adjustment</u>. South 641 provided a billing analysis with its Application using the 12-month test year ended December 31, 2014. During the course of this case, Staff learned that South 641 has operations in Tennessee that are not reported in its Annual Report filed with the Commission. Additionally, South 641 made adjustments to customers' sewer bills for water service leaks, filling of swimming pools,

and lawn and garden watering. The inclusion of the revenue for the Tennessee operations and the adjustments to the customers' sewer bills result in a net adjustment increasing General Sewer Service Sales by \$1,370.

(B) <u>Correction of Transaction Posting Errors</u>. During the test year, South 641 improperly posted transactions to sewer account 930, Miscellaneous and General Expenses, which were recorded to report employee wages, payroll taxes, and debt payments. The adjusting journal entries necessary to reclassify these transactions to the proper accounts are shown below.

Account No.	Account Title		Debit	<u>(</u>	Credit
701 920 930	Collection System Labor Administrative and General Salaries Miscellaneous and General Expenses	\$	3,884 1,334	\$	5,218
To reclassify	y payroll tax withholdings from miscellaneous expen	ise t	o wages	sexp	pense.
408 930 To reclassify	Taxes Other Than Income Miscellaneous and General Expenses y payroll taxes from miscellaneous expense to Taxe	s O	1,811 ther Tha	ın In	1,811 icome.
221 427 930	Bonds Payable Interest on Long-Term Debt Miscellaneous and General Expenses		13,073 3,859		16,932
To reclassify bond principal and interest payments from miscellaneous expense to bonds payable and interest expense.					

Staff accounted for the effects of these adjusting journal entries on the Sewer Division's pro forma operating statement by making the adjustments to test-year operations shown below:

	Adjustment Increase / (Decrease)		
Collection System Labor	\$	3,884	
Administrative and General Salaries		1,334	
Taxes Other Than Income		1,811	
Miscellaneous and General Expenses	()	23,961)	

(C) <u>Allocation of Shared Expenses</u>. To carry out its daily operations, South 641 incurs many expenses that are shared by the Water Division and Sewer Division that cannot be directly attributed, assigned, or charged to either division. As shown in the table below, South 641 allocated the test-year shared expenses to each division using the number-of-customer allocation factor that was authorized by the Commission in Case No. 1993-00108.⁹

⁹ Case No. 1993-00108, In the Matter of the Application of South 641 Water District for an Adjustment of Water and Sewer Rates Pursuant to the Alternative Rate Filing Procedure for Small Utilities (Ky. PSC May 7, 1993), Staff Report. In its May 7, 1993 Staff Report, Staff calculated the number of customer allocation factor as shown below. The allocation factor was authorized by Commission Order dated June, 14, 1993.

	Number of Customers	Percent of Total
Sewer Division	256	45%
Water Division	313	55%
Total	569	100%

		Water	Sewer
		Division	Division
	Total	55 Percent	45 Percent
Employee Wages	\$ 42,290	\$ 23,260	\$ 19,030
Dental Insurance	752	414	338
Telephone	2,111	1,164	947
Office Supplies	2,273	1,250	1,023
Postage	1,436	790	646
Mileage Reimbursement	3,511	1,931	1,580
Uncollectible Accounts	1,595	877	718
General Liability Insurance	4,700	2,585	2,115
Worker's Comp Insurance	1,893	1,041	852
Payroll Taxes	4,028	2,216	1,812
PSC Fee	361	199	163
Miscellaneous	 830	457	374
Total	\$ 65,780	\$ 36,183	\$ 29,597

Staff finds that it is appropriate to allocate the shared expenses listed above based on the number of customers served by each division except for Uncollectible Accounts and General Liability Insurance; however, the number of customer allocation factor used during the test year should have been calculated using the number of customers served by each division as of the end of the test year. The test-year allocation factor is shown below:

Number of	Percent of
Customers	Total

Sewer Division	220	37.80%
Water Division	362	62.20%
Total	582	100.00%

Further, Staff finds that it is appropriate to allocate Uncollectible Accounts based on the test-year service revenues reported by each division. Uncollectible Accounts is "charged with amounts sufficient to provide for losses from uncollectible utility revenues."¹⁰ Since the level of Uncollectible Accounts that is reported by a utility is directly correlated to the utility's service revenues, Staff finds that it is most appropriate to allocate South 641's uncollectibles based on the service revenues reported by each division. Further, to be consistent with the Commission's rulings in prior proceedings, Staff finds that it is most appropriate to allocate general liability insurance expense using the same revenue allocation factor.¹¹ The service revenue allocation factor that Staff finds is appropriate to allocate Uncollectible Accounts and General Liability Insurance is calculated below:

	 Service levenues	Percent of Total
Sewer Division Water Division	\$ 43,327 132,313	24.67% 75.33%
Total	175,640	100.00%

The adjustments to test-year operations that are necessary to allocate shared pro forma expenses, as determined by Staff, using the current number of customer allocation factor and the revenue allocation factor are shown below:

¹⁰ Uniform System of Accounts for Class C and D Sewer Utilities at 120.

¹¹ The Commission has determined in prior cases that the general liability insurance premiums paid by small utility systems are directly correlated to a utility's revenues. *See* Case No. 2008-00032, *Application of Burkesville Gas Company for an Adjustment of Rates Pursuant to the Alternative Rate Filing Procedure for Small Utilities* (Ky. PSC Oct. 31, 2008) at 8; and Case No. 2009-00227, *Alternative Rate Filing Application of Middletown Waste Disposal, Inc.* (Ky. PSC Apr. 30, 2010) at 5, n. 13.

Annual Report Account		Adjustment		
Collection System Labor	\$	(1,971)		
Uncollectible Accounts		(325)		
Administrative and General Salaries		(1,093)		
Office Supplies		(416)		
Insurance – Worker's Comp		(136)		
Insurance - General Liability		(955)		
Employee Pensions and Benefits		(54)		
Transportation Expense		(253)		
Miscellaneous Expense		(86)		
Taxes Other Than Income		(289)		

(D) <u>Overstatement of Expenses</u>. As part of its limited financial review, Staff traced the account balances shown in South 641's general ledger to the account balances South 641 reported in its test-year operating statement. This procedure demonstrated that South 641 double counted, as an expense, a portion of employee payroll tax withholdings. To remove the effects of this error, Staff reduced test-year Taxes Other Than Income by \$4,456.

(E) <u>Correction to Test-Year Depreciation Expense</u>. On its plant ledger, South 641 calculated an annual accrual for test-year depreciation in the amount of \$40,597. When recording this amount to its general ledger, it inadvertently reported \$42,208 for depreciation expense instead of \$40,597. In its Application, South 641 proposed to correct this error by decreasing test-year Depreciation Expense by \$1,611. Staff agrees with this adjustment and removed \$1,611 from the test-year expense.

(F) <u>Changes to Depreciable Lives</u>. As discussed in Attachment B of this report, the Commission's Division of Engineering Staff found that South 641's proposed changes to the depreciable lives assigned to certain sewer assets should be authorized

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by the Commission. To account for the effects of these changes, Staff reduced testyear depreciation expense by \$2,685 as calculated below:

Asset		Original Cost	Divide by: Staff Useful Life	 o Forma preciation
Administrative and Engineering Costs Pumps Impellers Stenner Pump Oxidation Lagoons	\$	168,498 11,127 4,234 452 52,900	35 7 7 7 25	\$ 4,814 1,590 605 65 2,116
Pro Forma Less: Test-Year Depreciation on Assets	s Lis	sted in the A	djustment	 9,189 (11,874)
Decrease				\$ (2,685)

Overall Revenue Requirement and Required Revenue Increase

South 641 and Staff used the Debt Service Coverage ("DSC") method as generally accepted by the Commission to calculate the Overall Revenue Requirement of South 641's Sewer Division. 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;¹² 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

¹² 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).

comparison of South 641's and Staff's calculation of the Sewer Division's Overall Revenue Requirement and Required Revenue Increase is shown below:

	South	01-11
	641	Staff
Pro Forma Operating Expenses	\$ 115,668	\$ 109,195
Plus: Average Annual Principal and Interest Payments	12,638	7,109
Additional Working Capital	2,528	1,422
Overall Revenue Requirement	130,834	117,726
Less: Other Operating Revenue	(1,635)	(1,635)
Interest Income	(277)	(277)
Revenue Required From Rates	128,922	115,814
Less: Pro Forma Present Rate Service Revenues	 (41,895)	 (41,692)
Required Revenue Increase	\$ 87,027	\$ 74,122
Pecent Increase	207.73%	177.79%

Average Principal and Interest Payments on Current Debts. South 641 has one outstanding bond payable to the United States Department of Agriculture Rural Development ("RD"). South 641 used the original bond proceeds in the amount of \$472,000 and RD grant proceeds in the amount of \$660,000 to purchase the water system and sewer system that were owned by the city of Hazel, Kentucky. This purchase marked the beginning of South 641's utility operations. At the time of purchase, South 641 reported the original cost of the water assets and sewer assets at \$839,636 and \$292,975, respectively.

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In its Application, South 641 calculated the three-year average bond principal and interest payment to be \$27,483. It allocated \$12,367 of the average payment to the Sewer Division, using the number of customer allocation factor that was authorized by the Commission in Case No. 1993-00108. Staff finds that using the three-year average bond payment is appropriate in this proceeding; however, it is appropriate to allocate the average payment to the divisions based on the original cost of the water and sewer assets that were purchased with the bond proceeds, rather than by use of the customer-allocation factor. Using this method, Staff allocated \$7,109 of the three-year average bond payment to the Sewer Division as average calculated below.

	3	Original Cost	Percent	C	llocation of Bond ayment
Sewer Plant	\$	292,975	25.87%	\$	7,109
Water Plant		839,636	74.13%		20,374
Total	\$1	,132,611	100.00%	\$	27,483

Additional Working Capital. In addition to depreciation expense, South 641 requested recovery of an allowance for working capital that is equal to 20 percent of its average annual RD bond payments. Historically, the Commission has allowed water districts recovery of additional working capital that is equal to the minimum net revenues required by a district's lenders that are above the district's average annual debt payments. In this case, RD requires that South 641 charge rates that produce net revenues that are at least 120 percent of its average annual bond payments. Following

the Commission's historic practice, Staff calculated South 641's allowance for additional

working capital as follows.13

Average Annual Principal and Interest Times: DSC Coverage Ratio	\$ 7,109 120%
Total Net Revenues Required Less: Average Annual Principal and Interest Payments	 8,531 (7,109)
Additional Working Capital	\$ 1,422

Signatures

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

Prepared by: Eddie Beavers Rate Analyst, Water and Sewer Rate Design Branch Division of Financial Analysis

¹³ Inclusion of additional working capital in South 641's revenue requirement is not necessary for it to earn revenues that meet the minimum DSC ratio its lenders require. As depreciation is a noncash item, it is excluded from the ratio calculation, which is actually a measure of cash flow. As shown below, South 641's minimum DSC ratio is met with or without the inclusion of additional working capital.

	With	Additional		Without
			100	king Capital
Overall Revenue Requirement	\$	117,726	\$	116,304
Less: Operating and Maintenance Expense		(69,761)		(69,761)
Taxes Other Than Income		(1,522)		(1,522)
Net Revenues		46,443		45,021
Divided by: Average Annual Debt Payments		7,109		7,109
DSC Ratio		653%		633%

ATTACHMENT A

STAFF REPORT, CASE NO. 2015-00278 RATES CALCULATED BY STAFF

Monthly Sewer Rates

Phase 1

Customer Charge All Usage \$16.98 Minimum bill 4.04 per 1,000 gallons

Sewer Customers Only Flat Rate Charge

\$33.14 Monthly

Phase 2

Customer Charge All Usage

Sewer Customers Only Flat Rate Charge \$24.97 Minimum bill 5.94 per 1,000 gallons

\$48.73 Monthly

ATTACHMENT B

STAFF REPORT, CASE NO. 2015-00278 SOUTH 641 WATER DISTRICT

ENGINEERING DIVISION'S ANALYSIS OF ASSET SERVICE LIVES FOR WASTEWATER SYSTEMS

Historically, the Commission has relied on the *O&M Guide for the Support of Rural Water-Wastewater Systems* by Commission on Rural Water, Chicago, Illinois, 1974, pp 246-247, to evaluate the reasonableness of a utility's depreciation practices. This study outlines expected service life ranges for various asset groups designed, installed, and maintained in accordance with good wastewater practices. Typically, an adjustment is made when the Commission finds that a utility is proposing to use a service life that falls outside of the range, while service lives falling within these ranges are generally accepted.

No asset service lives proposed in this case were found to be outside the Commission's established guidelines or as otherwise previously adopted by the Commission; therefore, no adjustments are recommended.

Prepared November 4, 2015

Mark Rasche, P.E. Manager, Water and Sewer Branch

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