

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF JACKSON COUNTY)
WATER ASSOCIATION, INC. FOR APPROVAL) CASE NO. 2006-00467
OF A PROPOSED INCREASE IN RATES)

ORDER

On January 17, 2007, Jackson County Water Association, Inc. ("Jackson") filed its application for Commission approval of proposed water rates. Commission Staff, having performed a limited financial review of Jackson's operations, has prepared the attached Staff Report containing Staff's findings and recommendations regarding the proposed rates. All parties should review the report carefully and provide any written comments or requests for a hearing or informal conference no later than 10 days from the date of this Order.

IT IS THEREFORE ORDERED that all parties shall have no more than 10 days from the date of this Order to provide written comments regarding the attached Staff Report or requests for hearing or informal conference. If no request for a hearing or informal conference is received, this case will be submitted to the Commission for a decision.

Done at Frankfort, Kentucky, this 13th day of April, 2007.

By the Commission

ATTEST:


Executive Director

STAFF REPORT
ON
JACKSON COUNTY WATER ASSOCIATION, INC.
CASE NO. 2006-00467

On January 8, 2007, Jackson County Water Association, Inc. ("Jackson") submitted an application seeking to increase its rates for water service pursuant to administrative regulation 807 KAR 5:001, Section 10. The case was considered filed on January 17, 2007, when all filing deficiencies were cured.

To establish the basis for its application Jackson selected the twelve months ended December 31, 2005 as its test-year. Jackson determined its revenue requirement from rates to be \$1,756,277, an increase of \$210,261 or 13.6 percent over normalized test-year revenues from rates of \$1,546,016. Jackson's requested rates would increase the monthly bill of a residential customer using 4,000 gallons from \$26.80 to \$29.86, an increase of \$3.06 or 11.42 percent.

Staff conducted a field review to gather information concerning Jackson's test-year operating results and the pro forma information presented in its application. The scope of Staff's review was limited to obtaining information as to whether the test-year and pro forma financial information is representative of normal operations. All pro forma adjustments to test-year operations are required to be known and measurable pursuant to administrative regulation 807 KAR 5:001, Section 10 (7). Insignificant or immaterial discrepancies were not pursued and are not addressed herein.

This report summarizes Staff's review and recommendations. Jack Scott Lawless is responsible for the revenue requirement determination while Eddie Beavers determined pro forma revenues and developed the cost of service study.

Attachment A of this report is Jackson's pro forma adjusted operating income statement as determined by Jackson and included in its application. Staff compiled the adjusted income statement as shown at Attachment B. Attachment B also includes explanation of Staff's proposed adjustments as well as discussion of the adjustments made by Jackson as shown in Attachment A.

Attachment C of this report compares Jackson's revenue requirement as determined by Jackson and Staff. Staff calculated Jackson's revenue requirements from rates to be \$1,680,569. The amount recommended by Staff represents a \$94,794 or 5.98 percent increase over normalized revenues from rates of \$1,585,775.

Attachment's D and E of this report details Staff's cost of service study where Staff's revenue requirements were allocated to develop Staff's recommended rates. The rates are shown on pages 10 - 15 of the Attachment E. The recommended rates will increase the monthly bill of a residential customer using 4,000 gallons from \$26.80 to \$28.16, an increase of \$1.36 or 5.07 percent.

Signatures:

Prepared by: Jack Scott Lawless, CPA
Financial Analyst, Water and Sewer
Revenue Requirements Branch
Division of Financial Analysis

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

ATTACHMENT A
 STAFF REPORT CASE NO. 2006-00467
 JACKSON'S REQUESTED ADJUSTED OPERATIONS

	Test Year	Adjustments	Pro Forma
Operating Revenue			
Water Sales	\$ 1,529,561	\$ 16,455	\$ 1,546,016
Other Operating Revenue	72,663	(72,663)	-
Total Operating Revenue	1,602,224	(56,208)	1,546,016
Operating Expenses			
Operation and Maintenance			
Salaries and Wages - Employees	407,917		407,917
Employee Pensions and Benefits	122,679		122,679
Purchased Power	121,755		121,755
Chemicals	50,063		50,063
Materials and Supplies	99,413		99,413
Contractual Services - Accounting	13,400		13,400
Contractual Services - Legal	560		560
Transportation Expenses	33,552		33,552
Insurance Worker's Comp.	8,883		8,883
Bad Debt	35,352		35,352
Miscellaneous	103,100		103,100
Total Operation and Maintenance	996,674	-	996,674
Taxes Other Than Income	38,086	(38,086)	-
Depreciation	407,355		407,355
Total Operating Expenses	1,442,115	(38,086)	1,404,029
Net Operating Income	160,109	(18,122)	141,987
Plus: Interest Income	48,774		48,774
Other Income	528		528
Income Available to Service Debt	\$ 209,411	\$ (18,122)	\$ 191,289

ATTACHMENT B
STAFF REPORT 2006-00467
STAFF'S ADJUSTED OPERATIONS

	Test Year	Adjustments	Ref.	Pro Forma
Operating Revenue				
Water Sales	\$ 1,529,561	\$ 56,214	(A)	\$ 1,585,775
Other Operating Revenue	72,663		(B)	72,663
Total Operating Revenue	<u>1,602,224</u>	<u>56,214</u>		<u>1,658,438</u>
Operating Expenses				
Operation and Maintenance				
Salaries and Wages - Employees	407,917	(5,153)	(C)	402,764
Employee Pensions and Benefits	122,679	(12,669)	(D)	110,010
Purchased Power	121,755	93	(E)	121,848
Chemicals	50,063	38	(E)	50,101
Materials and Supplies	99,413	(15,200)	(C)	84,213
Contractual Services - Accounting	13,400			13,400
Contractual Services - Legal	560			560
Transportation Expenses	33,552			33,552
Insurance Worker's Comp.	8,883			8,883
Bad Debt	35,352	(27,704)	(F)	7,648
Miscellaneous	103,100	(99)	(E)	103,001
Total Operation and Maintenance	996,674	(60,695)		935,979
Taxes Other Than Income	38,086	(3,480)	(D)	34,606
Depreciation	407,355	(25,933)	(G)	381,422
Total Operating Expenses	<u>1,442,115</u>	<u>(90,108)</u>		<u>1,352,007</u>
Net Operating Income	160,109	146,322		306,431
Plus: Interest Income	48,774			48,774
Other Income	528			528
Income Available to Service Debt	<u>\$ 209,411</u>	<u>\$ 146,322</u>		<u>\$ 355,733</u>

(A) Water Sales. Jackson reported test-year water sales of \$1,529,561. It proposed to increase this amount by \$16,455 to account for differences in the reported amount and the recalculated amount of its billing analysis. Staff reviewed Jackson's billing analysis, found it appropriate, and recommends that it be accepted by the Commission. Staff has increased test-year water sales by \$16,455.

Staff further increased test-year sales by \$39,759 to account for the additional revenue to be generated from the 182 new customers added to Jackson's distribution system during the test-year (118) and subsequent to the test-year (64). Staff calculated the adjustment by applying Jackson's present rates to the gallons necessary to annualize test-year sales to those customers connected during the test-year and the anticipated usage of the customers connected subsequent to the test-year. The additional sales were determined to be 6,024,000 gallons based on the average residential usage during the test-year of 4,000 gallons per month.

Staff's recommended net adjustment to test-year water sales is then \$56,214 (\$16,455 + \$39,759).

Since revenues have been increased to account for customer growth it is appropriate and necessary to adjust all expenses directly impacted by customer growth to properly match revenues and expenses. Accordingly, Staff has made corresponding adjustments to purchased power for pumping, chemicals, purchased water, and depreciation expenses. Each adjustment is shown and discussed in the sections of this report dedicated to those accounts. Test-year purchased water was accounted for through the miscellaneous expense account where Staff's adjustment is shown.

(B) Other Operating Revenue. For the test-year Jackson reported other operating revenue of \$72,663. In its application Jackson proposed to eliminate the entire amount although there was no explanation for this adjustment. Staff believes that the adjustment was simply an inadvertent omission by Jackson.

The revenue reported in this account was derived from the collection of non-recurring charges that were designed to recover the costs to provide specific services to Jackson's customers. The costs for these services are included in the pro forma operating expenses as determined by Jackson when developing its requested revenue requirement. If the revenues designed to recover these costs are removed from other operating revenues, as proposed by Jackson, these costs would again be recovered through monthly water service rates resulting in a double recovery. Therefore, Staff recommends that Jackson's adjustment be denied.

(C) Salaries and Wages. Jackson reported \$407,917 in salaries and wages expense for the test-year. It did not propose any adjustment to the test-year amount. Staff recommends that the test-year amount be decreased by \$5,153 as shown below.

Title	Hourly Pay	Regular Hours	Over-Time Hours at 1.5	Pro Forma
Office Manager	\$ 13.78	2,080	12.75	\$ 28,926
Plant Operator 1	14.07	2,080	31.00	29,920
Field Employee 1	14.09	2,080	82.75	31,056
Field Employee 2	14.09	2,080	51.50	30,396
Field Employee 3	15.67	2,080	79.50	34,462
Field Employee 4	16.98	2,080	41.75	36,382
Field Employee 5	12.82	2,080	85.75	28,315
General Manager	999.07	Per Week for 52		51,952
Plant Operator 2	11.18	2,080	31.00	23,774
Office	10.90	2,080	13.25	22,889
Field Supervisor	20.98	2,080	96.00	46,660
Field Employee 6	9.50	2,080	105.00	21,256
Bookkeeper	7.00	2,080	5.50	14,618
Billing Clerk	7.50	2,080	6.75	15,676
Cleaning	6.83	247		1,684
Pro Forma Wages				417,964
Less: Capitalized for New Taps				(15,200)
Pro Forma Wages Expensed				402,764
Less: Test Year				(407,917)
Decrease				<u>\$ (5,153)</u>

As shown above Staff determined pro forma wages by applying current pay rates of current employees to actual test-year hours worked. Staff then reduced the result by \$15,200 to capitalize labor for the installation of 76 new taps.

During the test-year Jackson connected 118 new taps. During construction of water main extensions contractors installed 42 of the 118 new taps. The cost of these taps was paid from Jackson's construction fund, capitalized, and depreciated. Jackson's employees installed the remaining 76 taps. The cost of these installations were not capitalized but included in test-year expenses.

The cost of each service installation has been determined by Jackson to be \$400, the amount of its tap fee charged to recover the costs. The total amount that

should have been capitalized is then \$30,400 (\$400 x 76 taps). The cost of the taps includes payroll and payroll overhead charges, materials and supplies, transportation, and equipment costs. Technically, all the accounts to which these expenses were charged should be adjusted, however, to simplify the matter, Staff has applied its adjustment to Salaries and Wages and Supplies Expense on a 50/50 basis by removing \$15,200 from each account. This simpler approach does not result in a material misstatement. The rate recovery of these costs is included in Staff's calculation of pro forma depreciation expense as addressed later in this report.

(D) Employee Pensions and Benefits and Taxes Other Than Income. These accounts require adjustment as a result of the aforementioned payroll adjustments. Due to Staff capitalizing new taps through the salaries and wages and supplies expense accounts, the adjustments to these accounts ignore capitalization for new tap installations.

For the test-year Jackson reported employee pensions and benefits of \$122,679. This amount includes expenses for employee health insurance, life insurance, and retirement. Staff recommends that the test-year amount be decreased by \$12,669 as shown below.

Health and Life Insurance	\$ 95,092
Retirement	<u>14,919</u>
Pro Forma Pensions and Benefits	110,010
Less: Test Year	(122,679)
Decrease	<u><u>\$ (12,669)</u></u>

Staff calculated pro forma health and life insurance using the most current premium statement available at the time of Staff's field visit to Jackson's office. For the

employees covered by Jackson's health plan, Jackson pays 100 percent of the cost for single coverage and half the extra cost for family coverage. Jackson pays 100 percent of the employee life insurance premium. The calculation of pro forma health and life insurance is shown below.

Title	Health Insurance			Life Insurance	Monthly Cost of Life and Health Insurance to Jackson
	Single Coverage	Total Family Coverages	Jackson's Share of Family Coverages		
Office Manager	\$ 818.41			\$ 15.20	\$ 833.61
Plant Operator 1	594.16	\$ 616.64	\$ 308.32	34.45	936.93
Field Employee 1	224.21	762.37	381.19	3.60	609.00
Field Employee 2	306.42	878.23	439.12	6.80	752.34
Field Employee 3	246.63	175.66	87.83	5.00	339.46
Field Employee 4	306.44			6.80	313.24
Field Employee 5	399.86			11.20	411.06
General Manager	784.74	171.94	85.97	25.80	896.51
Plant Operator 2	784.78			25.80	810.58
Office	482.06	568.05	284.03	3.20	769.29
Field Supervisor	538.14			16.20	554.34
Field Employee 6	224.21			3.60	227.81
Bookkeeper					-
Billing Clerk	467.14			3.00	470.14
	<u>\$ 6,177</u>	<u>\$ 3,173</u>	<u>\$ 1,586</u>	<u>\$ 161</u>	<u>7,924</u>
					12
					<u><u>\$ 95,092</u></u>

For retirement purposes Jackson matches contributions made by its employees to a retirement account up to four percent of the employee's wage. Staff calculated Jackson's pro forma pension expense, as shown below, by applying Jackson's contribution rates to pro forma wages as previously determined.

Title	Employee Contribution	Jackson Contribution	Pro Forma Wages	Jackson Contribution
Office Manager	6%	4%	\$ 28,926	\$ 1,157
Plant Operator 1	4%	4%	29,920	1,197
Field Employee 1	4%	4%	31,056	1,242
Field Employee 2	4%	4%	30,396	1,216
Field Employee 3	4%	4%	34,462	1,378
Field Employee 4	4%	4%	36,382	1,455
Field Employee 5	3%	3%	28,315	849
General Manager	4%	4%	51,952	2,078
Plant Operator 2	3%	3%	23,774	713
Office	4%	4%	22,889	916
Field Supervisor	5%	4%	46,660	1,866
Field Employee 6	4%	4%	21,256	850
Bookkeeper			14,618	-
Billing Clerk			15,676	-
Cleaning			1,684	-
			<u>\$ 417,964</u>	<u>\$ 14,919</u>

Jackson reported test-year taxes other than income of \$38,086 which includes payroll taxes, \$35,454, and the Public Service Commission assessment, \$2,632. Jackson proposed to eliminate the entire amount in the pro forma although no explanation was given for this adjustment in its application. It is Staff's position that Jackson's adjustment was simply an inadvertent omission and that the Commission should provide a provision for recovery of taxes. Staff has decreased the test-year amount of payroll taxes by \$3,480 to reflect FICA taxes to be paid on pro forma salaries and wages as previously calculated and discussed. Staff's FICA adjustment appears below.

Pro Forma Wages	\$ 417,964
Times: FICA Tax Rate	<u>7.65%</u>
Pro Forma	31,974
Less: Test Year	(35,454)
Decrease	<u>\$ (3,480)</u>

(E) Purchased Power, Chemicals, and Purchased Water. Jackson reported test-year purchased power, chemicals, and purchased water expenses in the amounts of \$121,755, \$50,063, and \$4,597, respectively. Purchased water was recorded in the miscellaneous expense account. Jackson did not propose adjustments to the test-year amounts. Staff recommends test-year purchased power, chemicals, and purchased water be increased/(decreased) by \$93, \$38, and \$(99), respectively, as shown below.

	Purchased Power	Chemicals	Purchased Water
Water Loss	\$ (2,632)	\$ (1,082)	\$ (99)
Customer Growth	2,724	1,120	-
Net Increase/(Decrease)	<u>\$ 93</u>	<u>\$ 38</u>	<u>\$ (99)</u>

The portion of the adjustments shown above for water loss is to account for the direct expenses incurred to pump, treat, and purchase lost water in excess of the amount allowed by administrative regulation 807 KAR 5:066 Section 6 (3) which states that “[e]xcept for purchased water rate adjustments for water districts and water associations, and rate adjustments pursuant to KRS 278.023(4), for rate-making purposes a utility’s unaccounted-for water loss shall not exceed fifteen (15) percent of total water produced and purchased, excluding water used by a utility in its own operations. Upon application by a utility in a rate case filing or by separate filing, or upon motion by the commission, an alternative level of reasonable unaccounted-for water loss may be established by the commission. A utility proposing an alternative level shall have the burden of demonstrating that the alternative level is more reasonable than the level prescribed in this section.”

Staff calculated Jackson's test-year water loss to be 17.16 percent as shown below.

Water Produced	316,741,505
Water Purchased	3,267,590
Total Produced and Purchased	<u>320,009,095</u>
Water Sold	232,692,100
Hydrant Flushing	6,786,000
Treatment Plant Use	25,132,782
Fire Department	480,000
Total Sold or Used	<u>265,090,882</u>
Lost Water	54,918,213
Divide by: Produced and Purchased	<u>320,009,095</u>
Percentage Lost	17.16%
Less: Allowable Percentage	-15.00%
Excess Water Loss Percentage	<u><u>2.16%</u></u>

Jackson did not demonstrate in its application that water loss in excess of 15 percent is reasonable. Accordingly, Staff has eliminated all direct expenses incurred for the excess water loss by decreasing purchased power, chemicals, and purchased water as shown below.

	Purchased Power	Chemicals	Purchased Water
Test Year	\$ 121,755	\$ 50,063	\$ 4,597
Times: Excess Water Loss Percent	2.16%	2.16%	2.16%
Decrease	<u><u>\$ (2,632)</u></u>	<u><u>\$ (1,082)</u></u>	<u><u>\$ (99)</u></u>

The new customer portion of Staff's adjustment is necessary to account for a full year of pumping and treatment expense to serve the 118 customers added to Jackson's distribution system throughout the test-year and the annual pumping and treatment expense that will be incurred to serve the 64 customers added subsequent to the test-

year. For this adjustment Staff assumed that all new customers would receive water from Jackson’s treatment plant and did not make any adjustment to purchased water.

The new customer adjustments were determined by applying the test-year pumping and treatment expense per thousand gallons to the gallons of water needed to serve the new customers. Staff determined the gallons needed by dividing by 85 percent the 6,024,000 normalized gallons to be sold to the new customers as discussed previously in the water sales section of this report. Staff’s approach is appropriate and necessary to gross-up normalized sales for the acceptable water loss limit established by administrative regulation. Staff’s adjustments are calculated below.

	Purchased Power	Chemicals
Test Year	\$ 121,755	\$ 50,063
Divided by: Test Year Thousand Gallons Produced or Purchased	<u>316,742</u>	<u>316,742</u>
Cost per Thousand Gallons	0.3844	0.1581
Thousand Gallons Need to Meet Additional Sales to Normalize Revenues	7,087	7,087
	<u>\$ 2,724</u>	<u>\$ 1,120</u>

Thousand Gallons Added to Test Year Sales to Normalize Revenues	6,024
Divide by: 85 Percent to Gross-Up Sales for Allowable Water Loss	85%
Thousand Gallons Needed	<u><u>7,087</u></u>

It should be noted that Staff’s adjustment to purchased power is based upon not only test-year power for pumping but also test-year power for lighting Jackson’s facilities. Due to the use of shared electric meters at Jackson’s facilities Staff was not able to separate power costs for pumping and lighting. It is Staff’s position that its

inclusion of power for lighting does not result in a material misstatement of pro forma expenses as the cost of power for lighting is minimal. Had Jackson used electric power for heating and heating costs were also included in test-year purchased power Staff's opinion may be different.

(F) Bad Debt Expense. Jackson reported bad debt expense of \$35,352 for the test-year which represents 2.31 percent of test-year revenue from water sales of \$1,529,561. In Staff's judgment this percentage is excessive and the test-year amount should be decreased. Staff has decreased the test-year amount by \$27,704, the calculation of which is shown below, to restate bad debt expense at .5 percent of test-year revenue from water sales.

Pro Forma Present Rate Revenues	\$ 1,529,561
Times: .5 percent allowance	<u>0.5%</u>
Pro Forma	7,648
Less: Test Year	(35,352)
Decrease	<u><u>\$ (27,704)</u></u>

To support its position and adjustment Staff presents the following information regarding bad debt expenses as approved by the Commission in recent rate case applications reviewed by Mr. Lawless. It is Staff's position that the information presented here is representative of average utility operations. As shown in this table a .5 percent allowance for bad debts is reasonable and should be accepted by the Commission.

	Bad Debt Expense	Water Sales Revenues	Percent of Bad Debts to Sales
East Laurel Water District	\$ 7,802	\$ 1,223,286	0.64%
West Laurel Water District	7,341	1,157,829	0.63%
Harrison County Water District	7,391	1,834,563	0.40%

An in-depth analysis of Jackson’s test-year bad debts was not performed by Staff in this case. Such an analysis was beyond the scope of the review performed by Staff to prepare this report. Staff did note that Jackson has all the normal policies and procedures in place to control bad debts including a policy for discontinuance of service for non-payment and charges for late payments and customer deposits. Upon Jackson’s request Staff will provide all assistance possible to identify and implement changes to Jackson’s policies and procedures to better control bad debts.

(G) Depreciation. Jackson reported test-year depreciation expense at \$407,355. Staff has decreased the test-year amount by \$25,933 as detailed below.

Change in Depreciable Lives of Mains	\$ (83,819)
Full-Year Depreciation for Test-Year Asset Purchases	48,206
Depreciation of 182 New Taps	1,820
Depreciation on Maintenance Garage and Post Test-Year Transmission and Distribution Mains	7,860
Decrease	<u><u>\$ (25,933)</u></u>

The depreciable lives assigned to Jackson’s utility plant in service accounts are consistent with those recommended by the National Association of Regulatory Utility Commissioners (“NARUC”) except for the 40-year life assigned to transmission and distribution mains. NARUC recommends a life range of 50 to 75 years for transmission and distribution mains.

Through discussions with Jackson’s current Certified Public Accountant (“CPA”) Staff believes that the original mains were assigned a 40-year life by a former CPA to either coincide with the term of the loans used to finance the main’s construction or to follow tax depreciation standards established by the Internal Revenue Service as they apply to investor owned property. After the initial 40-year life assignment was made, all

subsequent main installations were assigned a 40-year life to maintain a consistent application of the original accounting estimate.

Jackson has not provided a reasonable basis for the 40-year life assigned to transmission and distribution mains. The depreciable life assigned to any asset should be based on its estimated useful life and not the term of the loan used to finance its construction or a tax based life developed to accelerate depreciation.

Staff recommends the depreciable lives for transmission and distribution mains be increased from 40 years to 65 years, roughly the average life recommended by NARUC. To account for this change in accounting estimate Staff decreased test-year depreciation expense by \$83,819. The amount was calculated by applying straight-line, remaining-life depreciation to the main's net book balance at the end of the test-year. The calculation appears below.

In-Service Year	Age from End of Year	Remaining Life	Net Book Balance at 12/31/2005	Restated Depreciation Expense
1980	25	40	\$ 555,236	\$ 13,881
1981	24	41	327	8
1982	23	42	5,387	128
1984	21	44	2,378	54
1985	20	45	388	9
1986	19	46	34,159	743
1992	13	52	644,946	12,403
1993	12	53	4,258	80
1994	11	54	1,632	30
1995	10	55	1,354,997	24,636
1998	7	58	1,762,558	30,389
1999	6	59	80,388	1,363
2000	5	60	358,594	5,977
2001	4	61	1,594	26
2005	0	65	402,853	6,198
Pro Forma			<u>\$ 5,209,695</u>	95,924
Less: Test Year				(179,743)
Decrease				<u>\$ (83,819)</u>

The amount in the above calculation for 2005 is shown net of the amount related to meters and meter installations. During the test-year Jackson paid a contractor \$419,653 from a construction cash fund for the installation of mains and 42 meter connections. Jackson capitalized the entire amount as transmission and distribution mains. A separation of the amounts paid to the contractor for mains and meters is necessary for depreciation purposes since they have different depreciable lives. Not knowing the actual amount paid for the 42 meter installations, Staff assigned a total cost of \$16,800 based on the \$400 cost of a tap if installed by Jackson's employees. A provision for depreciation on capitalized tap costs is provided and discussed later in this section of the report.

Staff increased test-year depreciation by \$48,206 as calculated below to annualize depreciation taken on assets placed into service during the test-year. Jackson begins recording depreciation on an asset the month it is placed into service. For assets that were placed into service during the test-year only partial year depreciation was taken. This adjustment annualizes the partial year depreciation taken on those assets.

Asset	Cost	Life	Annual Depreciation	Less: Test-Year	Increase
Water Plant	\$ 5,447,102	40	\$ 136,178	\$ (90,785)	\$ 45,393
Fence	38,400	15	2,560	(213)	2,347
Pump	477	10	48	(24)	24
Turbo Shrearer	574	10	57	(10)	47
Meter Reader	1,295	40	32	(27)	5
File Cabinet	109	8	14	(11)	3
Printer	250	7	36	(30)	6
Computer	1,348	5	270	(202)	68
Shredder	367	8	46	(34)	12
Vacuum	44	8	6	(4)	2
Desk Shelf	42	8	5	(4)	1
Chairs	1,479	8	185	(139)	46
Desks	2,500	8	313	(234)	79
Time Clock	150	7	21	(14)	7
Time Clock	150	7	21	(14)	7
Rug	104	8	13	(7)	6
Utility Trailer	1,250	10	125	(42)	83
Truck Radios	2,286	7	327	(272)	55
Pump	154	10	15	(13)	2
Water Heater	197	10	20	(15)	5
Water Heater	199	10	20	(10)	10
Increase					<u>\$ 48,206</u>

Staff increased test-year depreciation by \$1,820, as shown below, to include a provision for depreciation of new taps installed during and subsequent to the test-year by Jackson's employees and independent contractors.

Cost of 76 Taps Installed by Jackson Employees During Test-Year	\$ 30,400
Cost of 62 Taps Installed by Jackson Employees Post Test-Year	24,800
Cost of 42 Taps Installed by Contractor During Test-Year	16,800
Cost of 2 Taps Installed by Contractor Post Test-Year	<u>800</u>
Total Meters and Installations	72,800
Divide by: Useful Life of 40 Years	40
Annual Recovery	<u><u>\$ 1,820</u></u>

The cost of the taps installed by Jackson employees during the test-year was expensed by Jackson when incurred. Capitalization of these costs was discussed in the salaries and wages section of this report. Staff also capitalized and depreciated the cost of 62 (62 taps x \$400 connection fee = \$24,800) post test-year tap installations performed by Jackson's employees. This portion of the adjustment is necessary to match the expense of providing service to the new customers included in Staff's revenue normalization adjustment.

The cost of the new taps installed by contractors was capitalized by Jackson and included as a part of transmission and distribution mains which have a different service life than meters and installations. As previously discussed the test-year amount assigned to contractor meter installations by Staff is \$16,800 or \$400 per meter. Jackson's contractor installed two post-test year meters. Staff has then capitalized and depreciated \$800 for these two services to properly match expenses to normalized revenues.

During its review Staff identified two significant post test-year plant additions for which an adjustment to test-year depreciation should be made. The adjustment appears below.

New Maintenance Garage	\$	203,354	40	\$	5,084
Transmission and Distribution Mains		180,442	65		2,776
Annual Recovery					<u>\$ 7,860</u>

Construction of the maintenance garage was completed in April, 2006. The total cost of the contracted main extension was \$181,242 and was brought on-line in July, 2006. Staff decreased that amount by \$800 for contractor tap installations as previously discussed. Both of these assets were used and useful at the time of Staff's field review and should be included in pro forma operations.

ATTACHMENT C
STAFF REPORT CASE NO. 2006-00467
COMPARISON OF REVENUE REQUIREMENT DETERMINATION

	Jackson Requested	Staff Recommended	Difference
Pro Forma Operating Expenses	\$ 1,404,029	\$ 1,352,007	\$ (52,022)
Debt Service Requirement			
Annual Principal and Interest			
KIA, 1992, \$1,792,633		113,915	
RD, 1972, \$393,000		22,903	
RD, 1979, \$541,000		31,528	
RD, 1986, \$150,000		8,742	
RD, 1986, \$90,000		5,245	
RD, 1991, \$1,214,600		70,785	
RD, 1994, \$1,000,000		54,343	
RD, 2003, \$1,130,000		62,614	
RD, 2003, \$685,000		37,956	
Total Principal and Interest Subject to Coverage		408,031	
Coverage at 10% of Principal and Interest		40,803	
KIA Loan Servicing Fee		1,692	
Total Debt Service Requirement	401,550	450,527	48,977
Total Revenue Requirement	1,805,579	1,802,534	(3,045)
Less: Other Operating Revenue		(72,663)	(72,663)
Interest Income	(48,774)	(48,774)	-
Other Income	(528)	(528)	-
Revenue Required from Rates	1,756,277	1,680,569	(75,708)
Less: Pro Forma Present Rate Revenue	(1,546,016)	(1,585,775)	(39,759)
Required Revenue Increase	\$ 210,261	\$ 94,794	\$ (115,467)

To determine Jackson's revenue requirement Staff added the pro forma operating expenses as presented in Attachment A to Jackson's annual debt service requirement as determined by Staff. Pro forma revenues other than those from rates were then deducted to determine the revenue required from rates. The required increase was determined by subtracting pro forma present rate revenues from the

revenue requirement.

As shown in the comparison above Staff's provision for debt service is different from that as determined by Jackson. Jackson's provision includes principal, interest and service charge payments made during the test-year. The test-year payments on the 2003 United States Department of Agriculture-Rural Development ("RD") loan did not include principal. Staff's provision includes principal and interest payments on all notes.

All notes other than the 2003 RD loans were outstanding at the time of Jackson's last general rate adjustment filed pursuant to administrative regulation 807 KAR 5:001, Section 10.¹ In that case recovery of all principal and interest payments was allowed, plus, a 10 percent debt coverage. Since that case the Commission authorized Jackson to borrow \$1,815,000 for the purpose of constructing a new water treatment facility costing \$5,770,000.² The balance of the cost of the project was funded through grants.

When determining its debt service requirement Jackson did not include a provision for debt coverage as required by its creditors. The loan agreement with the Kentucky Infrastructure Authority ("KIA") requires a 10 percent coverage. Staff was not able to locate the RD loan documents that establish RD's coverage requirements. Staff contacted Vernon Brown, Rural Utilities Service Program Director, of RD. He stated that all debts issued by RD required at least a 10 percent coverage on principal and

¹ Case No. 1999-00417, The Petition of Jackson County Water Association for Adjustment of Rates.

² See Case No. 2003-00140, The Petition of Jackson County Water Association for a Certificate of Convenience and Necessity, Financing and Adjustment of Rates Pursuant to KRS 278.023.

interest payments. Staff recommends that the Commission authorize Jackson rates in the case at bar that will provide a 10 percent coverage on all debt principal and interest payments as was done in Jackson's last general rate case.

Attachment D
Staff Report Case No. 2006-00467
Rate Making Discussion

Wholesale Allocation Factors: Staff has accepted the inch diameter mile method as filed by Jackson County. The factors were adjusted to reflect the adjustments that were made to the retail customer's gallons sold, as a result of new customers connecting to the system during the test year.

Cost of Service Study:

Rates: Staff's review established the total revenue required for Jackson County as \$1,802,534, \$72,663 is obtained through other operating revenue, \$48,774 is obtained through interest income and \$528 is obtained through other revenue. Staff developed rates that will collect the remaining \$1,680,569 from the company's retail and wholesale customers. The utility's expenses were analyzed and allocated according to three different classifications: Pumping and Treatment, Transmission and Distribution, and Customer.

Pumping and Treatment costs are those directly associated with the cost of water. Transmission and Distribution costs are those associated with providing the facilities to meet the peak demands placed on the system. Customer costs are those incurred to serve customers regardless to the varying usage.

The Allocation of Expenses sheet of the following cost of service study shows the allocation of Operation and Maintenance expenses to the functional cost components, Commission Staff utilized information obtained through the utility's application and field reviews to allocate these costs. Administrative and

general expenses are allocated to the cost components based on the subtotal allocated percentages.

The Wholesale Rate sheet of the following Cost of Service Study allocates the Operation and Maintenance expenses to the wholesale customer based on their derived allocation factors. Staff accepted Jackson County's method of allocating costs to the individual wholesale customer based on these individually derived allocation factors.

Additionally, applying the inch diameter mile allocation factors to the various cost components; Staff has calculated the Wholesale Rate for each customer of Jackson County.

The Allocation of Retail Costs sheet of the attached Cost of Service Study allocates the remaining portion of the Revenue Requirement from Rates to the retail customer in the functional cost components of Commodity, Demand and Customer; the allocation process results in \$169,156 in commodity costs, \$1,369,352 in demand costs and \$95,722 in customer costs. Commodity costs are allocated across the rate steps in accordance with usage percentages. Total demand costs are allocated across the rate steps in accordance with usage that has been adjusted to reflect the higher peak demands that are caused in the lower rate steps. Total customer costs are all collected in the first rate step, or minimum bill, since those costs do not differ with varying usage.

The total for the first rate step is \$797,562 which is divided by the number of bills issued on an annual bases which calculates to a minimum bill of \$15.11 for the first 2,000 gallons. The totals for the remaining rate steps are each

divided by the actual water usage for each rate step to calculate the remainder of the rates. The rates being recommended by Staff have been adjusted from the Cost of Service Study rates to reduce the impact of customers in the minimum step that do not use the allotted gallons for the minimum in the various meter sizes.

Attachment E
Staff Report Case No. 2006-00467
Cost of Service Study

SCHEDULE OF WATER USAGE

	Gallons	Percentage
Pumped and Purchased	320,009.0	
Retail and Bulk Sales**	225,161.2	
Rockcastle Co. Water Assn.	12,031.0	
City of Beattyville	6,563.0	
City of McKee	3,189.0	
Total Sold	246,944.2	
Plant Use, Flushing and Other	42,769.0	13%
Loss	36,329.8	11%
Total Water Sold and Used	326,043.0	

Sales do not match billing analysis due to different meter reading dates.

**Retail Sales has been adjusted for new customers added during 2005 and 2006

WHOLESALE ALLOCATION FACTORS

	Formula		Multiplier	Factor
Plant Use Percentage	0.1336			
Line Loss Percentage	0.1135			
Total Plant Use and Line Loss	0.2472			
Jackson Co. Water Production Multiplier	1 / 1 - .2729		1.3753	
Wholesale Inch Mile Ratio				
City of McKee	58.8 / 1,238.5		0.0475	
Rockcastle Water Association	164.4 / 1,238.5		0.1327	
City of Beattyville	113.8 / 1,238.5		0.0919	
Wholesale Share of Line Loss				
City of McKee	.0475 x .1392 + .1336		0.1390	
Rockcastle Water Association	.1327 x .1392 + .1336		0.1336	
City of Beattyville	.0919 x .1392 + .1336		0.1441	
Production Multiplier				
City of McKee	1 / 1 - .1403		1.1632	
Rockcastle Water Association	1 / 1 - .1336		1.1542	
City of Beattyville	1 / 1 - .1464		1.1715	
Production Allocation Factor				
City of McKee	3,189.0	x	1.1632	0.0109
	246,944.2		1.3753	
Rockcastle Water Association	12,031.0	x	1.1542	0.0409
	246,944.2		1.3753	
City of Beattyville	6,563.0	x	1.1715	0.0226
	246,944.2		1.3753	
Transmission Factor				
City of McKee	3,189.0 / 246944.2	x	0.0475	0.0006
Rockcastle Water Association	12,031.0 / 246944.2	x	0.1327	0.0065
City of Beattyville	6,563.0 / 246944.2	x	0.0919	0.0024

STAFF ALLOCATION OF EXPENSES TO WHOLESALE CUSTOMERS

Operating Expenses	Total	McKee Factors	McKee Expenses	Rockcastle Factors	Rockcastle Expenses	Beattyville Factors	Bea Exp
Salaries and Wages							
Supply	\$48,869	0.0109	\$ 533	0.0409	\$ 1,999	0.0226	\$
Treatment	48,868	0.0109	533	0.0409	1,999	0.0226	
Transm. and Distribution	173,474	0.0006	104	0.0065	1,128	0.0024	
Customer Accounts	80,247	-	-	-	-	-	
Admin. and General	51,306	-	-	-	-	-	
Employee Pensions and Benefits							
Supply	11,444	0.0109	125	0.0409	468	0.0226	
Treatment	11,444	0.0109	125	0.0409	468	0.0226	
Transm. and Distribution	47,331	0.0006	28	0.0065	308	0.0024	
Customer Accounts	22,716	-	-	-	-	-	
Admin. and General	17,075	-	-	-	-	-	
Purchased Power	121,848	0.0109	1,328	0.0409	4,984	0.0226	
Chemicals	50,101	0.0109	546	0.0409	2,049	0.0226	
Materials and Supplies							
Supply	16,477	0.0109	180	0.0409	674	0.0226	
Treatment	16,477	0.0109	180	0.0409	674	0.0226	
Transm. and Distribution	17,755	0.0006	11	0.0065	115	0.0024	
Admin. and General	33,504	-	-	-	-	-	
Accounting	13,400	-	-	-	-	-	
Legal	560	-	-	-	-	-	
Transportation Expense	33,552	-	-	-	-	-	
Bad Debt	7,648	-	-	-	-	-	
Insurance - Workers Comp.							
Supply	977	0.0109	11	0.0409	40	0.0226	
Treatment	1,066	0.0109	12	0.0409	44	0.0226	
Transm. and Distribution	3,909	0.0006	2	0.0065	25	0.0024	
Customer Accounts	1,777	-	-	-	-	-	
Admin. and General	1,155	-	-	-	-	-	
Operating Expenses (continued)	Total	McKee Factors	McKee Expenses	Rockcastle Factors	Rockcastle Expenses	Beattyville Factors	Bea Exp
Miscellaneous							
Supply	12,630	0.0109	138	0.0409	517	0.0226	
Treatment	18,424	0.0109	201	0.0409	754	0.0226	
Transm. and Distribution	20,820	0.0006	12	0.0065	135	0.0024	
Customer Accounts	38,570	-	-	-	-	-	
Admin. and General	12,547	-	-	-	-	-	
Depreciation							
Supply and Treatment	151,728	0.0109	1,654	0.0409	6,206	0.0226	
Transm. and Distribution	205,166	0.0006	123	0.0065	1,334	0.0024	

Other	24,536	-	-	-	-	-
Debt Service						
Supply and Treatment	146,967	0.0109	1,602	0.0409	6,011	0.0226
Transm. and Distribution	279,467	0.0006	168	0.0065	1,817	0.0024
Customer Accounts	14,857	-	-	-	-	-
Admin. and General	9,236	-	-	-	-	-
Taxes other than Income	34,606	0.0006	21	0.0065	225	0.0024
 Total Expenses	 \$ 1,802,534		 \$ 7,634		 \$ 31,971	 \$
Staff Wholesale			\$ 2.39		\$ 2.66	\$
COSS Rates						
Current			1.78		2.18	
Difference			\$ 0.61		\$ 0.48	\$
Percentage Increase			34%		22%	
JCWA Proposed Rates			\$2.52		\$2.77	\$

ALLOCATION OF EXPENSES TO RETAIL CUSTOMERS

Operating Expenses	Total	Commodity	Demand	Customer
Salaries and Wages				
Supply	\$45,233		\$45,233	
Treatment	45,232		45,232	
Transmission and Distribution	171,826		171,826	
Customer Accounts	80,247			80,247
Employee Pensions and Benefits				
Supply	10,593		10,593	
Treatment	10,593		10,593	
Transmission and Distribution	46,881		46,881	
Customer Accounts	22,716			22,716
Purchased Power	122,783	122,783		
Chemicals	46,373	46,373		
Materials and Supplies				
Supply	15,251		15,251	
Treatment	15,251		15,251	
Transmission and Distribution	17,586		17,586	
Bad Debt	7,648			7,648
Insurance - Workers Comp.				
Supply	904		904	
Treatment	987		987	
Transmission and Distribution	3,872		3,872	
Customer Accounts	1,777			1,777
Miscellaneous				
Supply	11,690		11,690	
Treatment	17,053		17,053	
Transmission and Distribution	20,622		20,622	
Customer Accounts	38,570			38,570
Depreciation				
Supply and Treatment	140,439		140,439	
Treatment	203,217		203,217	
Customer Accounts	15,101			15,101
Debt Service				
Supply and Treatment	136,033		136,033	
Transmission and Distribution	276,812		276,812	
Customer Accounts	14,857			14,857
Subtotal	\$1,540,147	\$169,156	\$1,190,075	\$180,916
Percentage - Less Commodity			0.8298	0.1702
Administrative and General	134,266		111,414	22,852
Accounting	13,400		11,119	2,281
Legal	560		465	95
Taxes other Than Income	34,270		28,437	5,833
Transportation	33,552		27,841	5,711

Total Expenses	\$1,756,195	\$169,156	\$1,369,352	\$217,687
Less Other Operat Revenue	72,663			72,663
Less Interest Income	48,774			48,774
Less Other Revenue	528			528
Revenue Required from Retail Rates	\$1,634,230	\$169,156	\$1,369,352	\$95,722

CALCULATION OF RETAIL RATES

	Total	2,000	18,000	30,000	50,000
Actual Water Sales	225,161.2	90,328.0	109,926.2	6,364.5	18,542.5
Percentage		0.4012	0.4882	0.0283	0.0824
Increased for Demand	390,204.4	180,656.0	182,477.5	8,528.4	18,542.5
Percentage		0.4630	0.4676	0.0219	0.0475
Commodity	\$169,156	\$67,860	\$82,584	\$4,781	\$13,930
Demand	1,369,352	633,980	640,372	29,929	65,072
Customer					
	95,722	95,722			
Total	\$1,634,230	797,562	722,956	34,710	79,002
Bills - 52,800					
COSS Rates		\$15.11	\$6.58	\$5.45	\$4.26
JCWA Proposed		16.50	6.68	5.75	4.75
Current Rates		14.48	5.96	5.07	4.17
Increase per Staff COSS		\$0.63	\$0.62	\$0.38	\$0.09
Percentage Change		4.14%	9.38%	7.04%	2.13%
Increase Proposed		\$2.02	\$0.72	\$0.68	\$0.58
Percentage Change		14%	12%	13%	14%

STAFF REVENUE SUMMARY

Water Sales	
5/8" Meter	\$1,567,864
1" Meter	6,339
1.5" Meter	14,182
2" Meter	39,136
3" Meter	3,083
4" Meter	9,233
Beattyville	12,995
McKee	8,100
Rockcastle County	32,484
Bulk Sales	1,880
Total Sales	\$1,695,296
Other Operating Revenue	72,663
Interest Income	48,774
Other Income	528
Total Income	\$1,817,261

STAFF PROPOSED RATES
5/8 x 3/4 INCH CONNECTIONS

	Bills	Total	2,000	18,000	30,000	50,000
First 2,000	16,055	14,231.3	14,231			
Next 18,000	36,049	174,591.2	72,098.0	102,493.2		
Next 30,000	309	8,409.5	618.0	5,562.0	2,229.5	
Over 50,000	37	13,006.9	74.0	666.0	1,110.0	11,156.9
Total	52,450	210,238.9	87,021.3	108,721.20	3,339.5	11,156.9

REVENUE TABLE

	Bills	Gallons	Rate	Revenue
First 2,000	52,450	87,021.3	\$15.00	\$786,750
Next 18,000		108,721.2	6.58	715,385
Next 30,000		3,339.5	5.45	18,200
Over 50,000		11,156.9	4.26	47,528
Total	52,450	210,238.9		\$1,567,864

STAFF PROPOSED RATES						
1 INCH CONNECTIONS						
	Bills	Total	5,000	15,000	30,000	50,000
First 5,000	17	17.3	17.3			
Next 15,000	141	1,169.0	705.0	464.0		
Next 30,000	18	507.0	90.0	270.0	147.0	
Over 50,000	2	143.2	10.0	30.0	60.0	43.2
Total	178	1,836.5	822.3	764.0	207.0	43.2
REVENUE TABLE						
	Bills	Gallons	Rate	Revenue		
First 5,000	178	822.3	\$34.85	\$6,203		
Next 15,000		764.0	6.58	5,027		
Next 30,000		207.0	5.45	1,128		
Over 50,000		43.2	4.26	184		
Total	178	1,836.5		\$ 6,339		

STAFF PROPOSED RATES						
1 1/2 INCH CONNECTIONS						
	Bills	Total	10,000	10,000	30,000	50,000
First 10,000	10	14.3	14.3			
Next 10,000	11	111.4	110.0	1.4		
Next 30,000	23	854.4	230.0	230.0	394.4	
Over 50,000	21	2,386.7	210.0	210.0	630.0	1,336.7
Total	65	3,366.8	564.3	441.4	1,024.4	1336.7
REVENUE TABLE						
	Bills	Gallons	Rate	Revenue		
First 10,000	65	564.3	\$67.75	\$4,404		
Next 10,000		441.4	6.58	2,904		
Next 30,000		1,024.4	5.45	5,583		
Over 50,000		1,336.7	4.26	5,694		
Total	65	3,366.8		\$ 14,182		

STAFF PROPOSED RATES
2 INCH CONNECTIONS

	Bills	Total	20,000	30,000	50,000
First 20,000	25	157.8	157.8		
Next 30,000	17	655.5	340.0	315.5	
Over 50,000	43	6,618.1	860.0	1,290.0	4,468.1
Total	85	7,431.4	1,357.8	1,605.5	4,468.1

REVENUE TABLE

	Bills	Gallons	Rate	Revenue
First 20,000	85	1,357.8	\$133.55	\$11,352
Next 30,000		1,605.5	5.45	8,750
Over 50,000		4,468.1	4.26	19,034
Total	85	7,431.4		\$39,136

STAFF PROPOSED RATES					
3 INCH CONNECTIONS					
	Bills	Total	30,000	20,000	50,000
First 30,000	7	1.0	1.0		
Next 20,000	0	-	-	-	
Over 50,000	3	355.6	90.0	60.0	205.6
Total	10	356.6	91.0	60.0	205.6
REVENUE TABLE					
	Bills	Gallons	Rate	Revenue	
First 30,000	10	91.0	\$ 188.05	\$ 1,881	
Next 20,000		60.0	5.45	327	
Over 50,000		205.6	4.26	876	
Total	10	356.6		\$ 3,083	

STAFF PROPOSED RATES					
4 INCH CONNECTIONS					
	Bills	Total	40,000	10,000	50,000
First 40,000	0	-	-		
Next 10,000	1	49.0	40.0	9.0	
Over 50,000	11	1,882.0	440.0	110.0	1,332.0
Total	12	1,931.0	480.0	119.0	1,332.0
REVENUE TABLE					
	Bills	Gallons	Rate	Revenue	
First 40,000	12	480.0	\$242.55	\$2,911	
Next 10,000		119.0	5.45	649	
Over 50,000		1,332.0	4.26	5,674	
Total	12	1,931.0		\$9,233	