### WHOLESALE WATER RATE STUDY

# City of Augusta Kentucky Water Treatment Plant Department

August 5, 2024

Prepared by Jack Scott Lawless



#### **EXECUTIVE SUMMARY**

The City of Augusta's Water Treatement Plant Department ("Augusta Treatment") operates a water treatment plant facility that provides potable water to the City of Augusta's Water Distribution Department ("Augusta Distribution") and to Bracken County Water District ("Braken District"). Service is provided to Bracken District pursuant to a Water Purchase Contract executed on February 9, 2016 ("2016 Contract"), as amended by an Agreement dated May 10, 2021 ("2021 Agreement").

Augusta Treatment delivers water to Bracken District and Augusta Distribution through separate master meters located immediately adjacent to the water treatment plant. Augusta Treatment does not provide water transmission or distribution services and incurs no costs for such services. All costs incurred by Augusta Treatment are necessary for water production. Pursuant to the 2016 Contract, Section 16.e., water production costs are allocated between Bracken District and Augusta Distribution based upon the total annual volume of water delivered to each party except that Section 16.d. of the 2016 Contract limits debt service costs assignable to Bracken District to 64 percent of Augusta Treatment's total annual debt service requirement.

Augusta Treatment currently charges a uniform rate to both wholesale customers in the amount of \$2.36 per thousand gallons that went into effect on May 1, 2021, pursuant to an Order of the Kentucky Public Service Commission ("KPSC") in Case No. 2020-00277. At the City of Augusta's request, Kentucky Rural Water Association ("KRWA") agreed to evaluate the reasonableness of the current rate. KRWA's findings are summarized in this report.

As required by the 2016 Contract, Section 16.a., the City of Augusta's most recent audit report for the fiscal year ended ("FYE") June 30, 2023, was used as the test-year to perform the evaluation. Adjustments were made to test-year operating costs that were known and measurable as allowed by the 2016 Contract, Section 16.f. While the 2016 Contract does not include a provision that specifically allows for known and measurable adjustments to revenues, there is no prohibition against such adjustments. There being no prohibition, known and measurable adjustments were also made to test-year revenues.

All adjustments are shown as a part of the Pro Forma Operating Statement attached hereto as Schedule A along with explanation of each adjustment. Allocation of Pro Forma Expenses to Augusta Distribution and to Bracken District is shown in Schedule B. Augusta Treatment's average annual debt service requirement and its allocation to the wholesale customers is shown in Schedule C. Calculation of the wholesale rates is provided in Schedule D.

Separate rates for Augusta Distribution and Bracken District were calculated to be \$3.32 per 1,000 gallons and \$2.87 per 1,000 gallons, respectively. A unified rate was calculated to be \$2.97 per 1,000 gallons. As discussed in Schedule D, the method used to calculate the debt service component of the unified rate is in violation of the 2016 Contract, Section 16.d., with more than 64 percent of the total debt service costs being allocated to Bracken District.

### Schedule A PRO FORMA ADJUSTED OPERATING STATEMENT City of Augusta Water Treatment Plant, Test Year Ended June 30, 2023

	I	est Year	<u>Adj</u>	<u>ustments</u>	Ref.	<u>Pı</u>	ro forma
Water Sales Revenue Augusta Distribution Department	\$	126,660	\$	(2,667) (23,850)	(B)	\$	100,143
Bracken County Water District		370,624		38,041 (44,070)	` '		364,595
Total Water Sales Revenue		497,284	\$	(32,547)	<del>-</del>		464,737
Operating Expenses							
Operation and Maintenance Expenses							
Salaries and Wages		185,277		10,070	` '		195,347
Employee Benefits - Health Insurance		19,003		9,555	(F)		28,558
Purchased Power for Pumping		87,413		(6,449)	(G)		80,964
Chemicals - Water Treatment		30,870		5,900	(H)		
				(9,023)	(I)		27,746
Chemicals - Lab		5,800					5,800
Repairs - Materials and Contract Labor		49,301		(16,667)	(J)		
·				(8,086)	(K)		24,549
Natural Gas		3,559		( , ,	` '		3,559
Testing		3,524					3,524
Employee Training		1,021					1,021
Contracted Services - Audit		1,700					1,700
Contracted Services - Legal		2,142		1,282	/1.\		3,423
Contracted Services - Software		713		1,202	(L)		713
		/13		2.750	/M/\		
Rate Case Expense - Amortization		541		2,750	(14)		2,750 541
Copier							
Communication		2,416		(0.000)	<b>(5.1)</b>		2,416
Insurance - General Liability		11,039		(2,638)	(N)		8,401
Insurance - Workers Comp		6,492					6,492
Office Supplies		323					323
Ground Maintenance		2,838					2,838
Miscellaneous - Bond Fees		450					450
Bank Service Fees		65			-		65
Total Operation and Maintenance		414,486		(13,307)			401,179
Depreciation		104,882		809	(K)		
				(42,822)	(O)		
				2,543	(P)		65,412
Taxes Other Than Income		14,004		940	(Q)		14,944
Total Operating Expenses		533,372		(51,837)			481,535
Net Operating Income		(36,088)		19,290			(16,798)
Plus: Interest Income		1,409		,	<u>-</u>		1,409
Income Available to Service Debt	\$	(34,679)	\$	19,290	•	\$	(15,389)

#### **EXPLANATION OF ADJUSTMENTS**

- (A) Revenue Reporting Accrual Basis Accounting. For bookkeeping purposes, Augusta Treatment recognizes revenue on a cash basis. As part of the year-end audit process, test-year sales revenue received from Bracken District was adjusted to an accrual basis of accounting. However, revenue received from Augusta Distribution was not adjusted to an accrual bassis. In this analysis, test-year revenue was decreased by \$2,667 to convert sales to Augusta Distribution from a cash basis to an accrual basis of accounting.
- (B) <u>Decrease to Test-Year Water Sales Volume</u>. Augusta Treatment's water sales to Augusta Distribution and to Bracken District decreased significantly after the end of the test year. Augusta Distrubtion's annual purchases decreased by 19 percent in pro forma operations. Bracken District decreased its purchases by nearly 11 percent. These changes to water sales will directly affect Augusta Treatment's revenue and purchased power and chemical expenses. Adjustments were made to account for these changes. The adjustment for water sold to Augusta Distribution is discussed below. The adjustment to water sold to Bracken District is shown in Ref. Item (D). Adjustments to Purchased Power for Pumping and Chemicals are discussed in Ref. Items (G) and (I), respectively.

Sales to Augusta Distribution. In January of the test year, Augusta Distribution repaired a major water main leak that resulted in a significant decrease to its wholesale water purchases. To fully remove the affects of the leak from test-year operations, Augusta Treatment's pro forma sales were adjusted to the amount billed to Augusta Distribution during the twelve months ended April 30, 2024, the -off date for field work conducted to perform this study. The adjustment is detailed below with the pro forma information shown in bold font.

Production Billed Total Billed Total **Month** Gallons **Gallons** Revenue Revenue Test Year July 2022 4,482,456 \$10,579 10,406 **Accrual Basis** August 4,409,160 of Accounting September 9,450 4,004,072 October 4,798,307 11,324 November 5,299,703 12,507 December 19,206 8,138,245 January 2023 5,813,224 13,719 February 2,956,951 6,978 March 3,101,463 7,319 April 3,054,521 7,209 Pro forma May 3,165,153 7,470 Total Test Year June 3,316,189 52,539,444 7,826 \$123,993 3,022,622 7,133 July August 3,211,697 7,580

2,909,823

3,039,053

2,703,775

3,409,054

4,100,305

4,502,633

4,553,181

4,500,023

6,867

7,172

6,381 8,045

9,677

10,626

10,746

10,620

100,143

\$ (23,850)

-19.23%

42,433,508

(10,105,936)

-19.23%

September

November

December

February March

Total Pro forma April

Decrease to Test Year

Percentage

January 2024

October

Adjustment - Sales to Augusta Distribution

(C) Revenue Reporting – Reimbursement of Overcharges Resulting from Inaccruate Master Meter. Prior to the test year, it was discovered that the master meter through which Augusta Treatment serves Bracken District was inaccurately measuring water flow from August 4, 2020 to November 30, 2021. The inaccurate meter resulted in Augusta Treatment overbilling Bracken District by \$58,951. Pursuant to the "Agreement Resolving Billing Dispute" dated July 20, 2022, Augusta Treatment agreed to refund the overcharges through five billing credits in the amount of \$9,510 (\$58,951/5).

For financial reporting purposes, Augusta Treatment recognized four of the monthly billing credits totaling \$38,041 as a reduction to test-year revenues. In this evaluation, these

credits were added back to the test year for rate-making purposes to restate pro forma revenue from water sales to Bracken District at \$408,665, the amount of actual test-year water sales to Bracken District. The adjustment is detailed below.

			Actual		Reported		
	Gallons Sold	R	evenue at	Refund		Te	est-Year
Test Year	to Bracken	\$2.3	36 per 1,000	(	Credit	Revenue	
2022 July	15,713,214	\$	37,083	\$	(9,510)	\$	27,573
August	14,410,836		34,010		(9,510)		24,499
September	13,833,302		32,647		(9,510)		23,136
October	14,393,328		33,968		(9,510)		24,458
November	14,490,751		34,198				34,198
December	16,333,198		38,546				38,546
2023 January	14,663,912		34,607				34,607
February	11,663,373		27,526				27,526
March	12,041,624		28,418				28,418
April	13,346,270		31,497				31,497
May	16,704,055		39,422				39,422
June	15,569,117		36,743				36,743
		\$	408,665	\$	(38,041)	\$	370,624

(D) Bracken District Reduces Purchases from Augusta Treatment. Bracken District significantly decreased test-year wholesale water purchases from Augusta Treatment during the twelve months ended April 30, 2024, presumably as a result of purchasing wholesale water from an alternative source of supply, Western Mason Water District. To determine pro forma present rate water sales revenue, Augusta Treatment's test-year sales to Bracken District were decreased to the level of revenue recognized during the twelve months ended April 30, 2024. The adjustment is detailed below with the pro forma information shown in bold font.

Adjustment - Sales to Bracken

Test Year July 2022 15,713,214 \$37,083 Accrual Basis August 14,410,836 34,010 October 13,833,302 32,647 October 14,490,751 34,198 December 16,333,198 38,546 January 2023 14,663,912 34,607 February 11,663,373 27,526 March 12,041,624 April 13,346,270 31,497 Pro forma May 16,704,055 39,422 Total Test Year June 15,569,117 173,162,980 36,743 \$408,665 January 2024 12,975,798 27,626 January 2024 12,975,798 30,623 February 11,551,364 March 11,290,404 26,645 Total Pro forma April 10,149,945 154,489,118 23,954 364,594 Decrease to Test Year (18,673,862) \$\$\$ \$		Aaju	istment - Sales	to Bracken		
Test Year July 2022 15,713,214 \$37,083 Accrual Basis August 14,410,836 34,010 Of Accouting September 13,833,302 32,647 October 14,393,328 33,968 November 14,490,751 34,198 December 16,333,198 38,546 January 2023 14,663,912 34,607 February 11,663,373 27,526 March 12,041,624 28,418 April 13,346,270 31,497 Pro forma May 16,704,055 39,422 Total Test Year June 15,569,117 173,162,980 36,743 \$408,665 December 12,900,334 30,445 October 11,730,678 27,684 November 12,102,538 28,562 January 2024 12,975,798 30,623 February 11,551,364 March 11,290,404 26,645 Total Pro forma April 10,149,945 154,489,118 23,954 364,594 Decrease to Test Year (18,673,862) \$\$\$\$ \$		Production	Billed	Total	Billed	Total
Accrual Basis of August 14,410,836 34,010  October 13,833,302 32,647  October 14,393,328 33,968  November 14,490,751 34,198  December 16,333,198 38,546  January 2023 14,663,912 34,607  February 11,663,373 27,526  March 12,041,624 28,418  April 13,346,270 31,497  Pro forma May 16,704,055 39,422  Total Test Year June 15,569,117 173,162,980 36,743 \$408,665  July 13,862,081 32,715  August 14,039,725 33,134  September 12,900,334 30,445  October 11,730,678 27,684  November 11,613,079 27,407  December 12,102,538 28,562  January 2024 12,975,798 30,623  February 11,551,364  March 11,290,404  Decrease to Test Year (18,673,862) \$(44,070)		<u>Month</u>	<u>Gallons</u>	<u>Gallons</u>	Revenue	<u>Revenue</u>
Accrual Basis of August 14,410,836 34,010  October 13,833,302 32,647  October 14,393,328 33,968  November 14,490,751 34,198  December 16,333,198 38,546  January 2023 14,663,912 34,607  February 11,663,373 27,526  March 12,041,624 28,418  April 13,346,270 31,497  Pro forma May 16,704,055 39,422  Total Test Year June 15,569,117 173,162,980 36,743 \$408,665  July 13,862,081 32,715  August 14,039,725 33,134  September 12,900,334 30,445  October 11,730,678 27,684  November 12,102,538 28,562  January 2024 12,975,798 30,623  February 11,551,364  March 11,290,404  Total Pro forma April 10,149,945 154,489,118 23,954 364,594						
of Accouting         September October 14,393,328	Test Year	July 2022	15,713,214		\$ 37,083	
October         14,393,328         33,968           November         14,490,751         34,198           December         16,333,198         38,546           January 2023         14,663,912         34,607           February         11,663,373         27,526           March         12,041,624         28,418           April         13,346,270         31,497           Pro forma         May         16,704,055         39,422           Total Test Year         June         15,569,117         173,162,980         36,743         \$408,665           July         13,862,081         32,715           August         14,039,725         33,134           September         12,900,334         30,445           October         11,730,678         27,684           November         11,613,079         27,407           December         12,102,538         28,562           January 2024         12,975,798         30,623           February         11,551,364         27,261           March         11,290,404         26,645           Total Pro forma         April         10,149,945         154,489,118         23,954         364,594	Accrual Basis	August	14,410,836		34,010	
November   14,490,751   34,198   38,546   38,448   38,4	of Accouting	September	13,833,302		32,647	
December   16,333,198   38,546   34,607   February   11,663,373   27,526   March   12,041,624   28,418   April   13,346,270   31,497   Pro forma   May   16,704,055   39,422   Total Test Year   June   15,569,117   173,162,980   36,743   \$408,665   39,422   Total Test Year   June   15,569,117   173,162,980   36,743   \$408,665   39,422   40,000		October	14,393,328		33,968	
January 2023   14,663,912   34,607   February   11,663,373   27,526   March   12,041,624   28,418   April   13,346,270   31,497   May   16,704,055   39,422   Total Test Year   June   15,569,117   173,162,980   36,743   \$408,665   May   14,039,725   33,134   September   12,900,334   30,445   October   11,730,678   27,684   November   11,613,079   27,407   December   12,102,538   28,562   January 2024   12,975,798   30,623   February   11,551,364   27,261   March   11,290,404   26,645   Total Pro forma   April   10,149,945   154,489,118   23,954   364,594   March   10,149,945   154,489,118   23,954   \$444,070   May		November	14,490,751		34,198	
February       11,663,373       27,526         March       12,041,624       28,418         April       13,346,270       31,497         Pro forma       May       16,704,055       39,422         Total Test Year       June       15,569,117       173,162,980       36,743       \$408,665         July       13,862,081       32,715         August       14,039,725       33,134         September       12,900,334       30,445         October       11,730,678       27,684         November       11,613,079       27,407         December       12,102,538       28,562         January 2024       12,975,798       30,623         February       11,551,364       27,261         March       11,290,404       26,645         Total Pro forma       April       10,149,945       154,489,118       23,954       364,594		December	16,333,198		38,546	
March       12,041,624       28,418         April       13,346,270       31,497         Pro forma       May       16,704,055       39,422         Total Test Year       June       15,569,117       173,162,980       36,743       \$408,665         July       13,862,081       32,715         August       14,039,725       33,134         September       12,900,334       30,445         October       11,730,678       27,684         November       11,613,079       27,407         December       12,102,538       28,562         January 2024       12,975,798       30,623         February       11,551,364       27,261         March       11,290,404       26,645         Total Pro forma       April       10,149,945       154,489,118       23,954       364,594		January 2023	14,663,912		34,607	
Pro forma         April         13,346,270         31,497           Total Test Year         June         15,569,117         173,162,980         36,743         \$408,665           July         13,862,081         32,715           August         14,039,725         33,134           September         12,900,334         30,445           October         11,730,678         27,684           November         11,613,079         27,407           December         12,102,538         28,562           January 2024         12,975,798         30,623           February         11,551,364         27,261           March         11,290,404         26,645           Total Pro forma         April         10,149,945         154,489,118         23,954         364,594		February	11,663,373		27,526	
Pro forma         May         16,704,055         39,422           Total Test Year         June         15,569,117         173,162,980         36,743         \$408,665           July         13,862,081         32,715           August         14,039,725         33,134           September         12,900,334         30,445           October         11,730,678         27,684           November         11,613,079         27,407           December         12,102,538         28,562           January 2024         12,975,798         30,623           February         11,551,364         27,261           March         11,290,404         26,645           Total Pro forma         April         10,149,945         154,489,118         23,954         364,594		March	12,041,624		28,418	
Total Test Year         June         15,569,117         173,162,980         36,743         \$408,665           July         13,862,081         32,715           August         14,039,725         33,134           September         12,900,334         30,445           October         11,730,678         27,684           November         12,102,538         28,562           January 2024         12,975,798         30,623           February         11,551,364         27,261           March         11,290,404         26,645           Total Pro forma         April         10,149,945         154,489,118         23,954         364,594           Decrease to Test Year         (18,673,862)         \$ (44,070)		April	13,346,270		31,497	
July       13,862,081       32,715         August       14,039,725       33,134         September       12,900,334       30,445         October       11,730,678       27,684         November       11,613,079       27,407         December       12,102,538       28,562         January 2024       12,975,798       30,623         February       11,551,364       27,261         March       11,290,404       26,645         Total Pro forma       April       10,149,945       154,489,118       23,954       364,594	Pro forma	May	16,704,055		39,422	
August 14,039,725 33,134 September 12,900,334 30,445 October 11,730,678 27,684 November 11,613,079 27,407 December 12,102,538 28,562 January 2024 12,975,798 30,623 February 11,551,364 27,261 March 11,290,404 26,645  Total Pro forma April 10,149,945 154,489,118 23,954 364,594	Total Test Year	June	15,569,117	173,162,980	36,743	\$408,665
September       12,900,334       30,445         October       11,730,678       27,684         November       11,613,079       27,407         December       12,102,538       28,562         January 2024       12,975,798       30,623         February       11,551,364       27,261         March       11,290,404       26,645         Total Pro forma       April       10,149,945       154,489,118       23,954       364,594		July	13,862,081		32,715	
October       11,730,678       27,684         November       11,613,079       27,407         December       12,102,538       28,562         January 2024       12,975,798       30,623         February       11,551,364       27,261         March       11,290,404       26,645         Total Pro forma       April       10,149,945       154,489,118       23,954       364,594         Decrease to Test Year       (18,673,862)       \$ (44,070)		August	14,039,725		33,134	
November       11,613,079       27,407         December       12,102,538       28,562         January 2024       12,975,798       30,623         February       11,551,364       27,261         March       11,290,404       26,645         Total Pro forma       April       10,149,945       154,489,118       23,954       364,594         Decrease to Test Year       (18,673,862)       \$ (44,070)		September	12,900,334		30,445	
December       12,102,538       28,562         January 2024       12,975,798       30,623         February       11,551,364       27,261         March       11,290,404       26,645         Total Pro forma       April       10,149,945       154,489,118       23,954       364,594         Decrease to Test Year       (18,673,862)       \$ (44,070)		October	11,730,678		27,684	
January 2024       12,975,798       30,623         February       11,551,364       27,261         March       11,290,404       26,645         Total Pro forma       April       10,149,945       154,489,118       23,954       364,594         Decrease to Test Year       (18,673,862)       \$ (44,070)		November	11,613,079		27,407	
February March       11,551,364       27,261         Total Pro forma       April       10,149,945       154,489,118       23,954       364,594         Decrease to Test Year       (18,673,862)       \$ (44,070)		December	12,102,538		28,562	
March         11,290,404         26,645           Total Pro forma         April         10,149,945         154,489,118         23,954         364,594           Decrease to Test Year         (18,673,862)         \$ (44,070)		January 2024	12,975,798		30,623	
Total Pro forma April         10,149,945         154,489,118         23,954         364,594           Decrease to Test Year         (18,673,862)         \$ (44,070)		February	11,551,364		27,261	
Decrease to Test Year (18,673,862) \$ (44,070)		March	11,290,404		26,645	
	Total Pro forma	April	10,149,945	154,489,118	23,954	364,594
Percentage -10.78% -10.78%	Decrease to Tes	t Year		(18,673,862)		\$ (44,070)
	Percentage			-10.78%		-10.78%

(E) Salaries and Wages. The City of Augusta has three full-time employees dedicated to operating the water treatment plant whose wages and benefits are charged 100 percent to Augusta Treatment. Augusta Treatment's accounting and clerical duties are performed by the City Clerk. Augusta Treatment is allocated 25 percent of the clerk's compensation. The City of Augusta allocates 50 percent of its Operations Manager's wages to Augusta Treatment. Augusta Treatment has a three-member Advisory Board who are each paid \$50 per meeting.

Test-year Salaries and Wages were reported at \$185,277. This amount was increased by \$10,070 to state pro forma Salaries and Wages at \$195,347. The pro forma amount was

determined by applying wage rates effective July 1, 2024, to the number of test-year hours worked by each employee. The allocation factors were applied to the wages of the City Clerk and Operations Manager.

(F) <u>Employee Benefits – Health Insurance</u>. The city of Augusta provides different levels of health insurance benefits to the City Clerk and to the three full-time employees dedicated to operation of the water treatement plant. The Operations Manager is not provided health care insurance.

Pursuant to the city's current employee benefits policy, the water treatment plant employees receive single-coverage health insurance plans with each employee contributing \$29.44 per week. The clerk continues to receive coverage pursuant to a prior employee benefits policy that provides family healthcare coverage with no employee contribution.

Augusta Treatment reported \$19,003 for test-year Employee Benefits – Health Insurance expense. Based upon Augusta Treatment's current monthly health care costs, the test-year amount was increased by \$9,555 as follows:

									Tim	es:		
	Cur	rent			L	_ess:			Perc	Percent		
	Mor	nthly	Ann	nualized	Em	ployee		Allocated				
	<u>Prer</u>	<u>nium</u>	<u>.</u>	<u>Cost</u>	Con	<u>tribution</u>	<u>S</u>	<u>Subtotal</u>	to Aug	gusta	<u>Pr</u>	<u>o forma</u>
Total Single Policies	\$	2,405	\$	28,855	\$	(4,593)	\$	24,263		100%	\$	24,263
Total Family Policy		1,432		17,182				17,182		25%_		4,296
Pro forma Less: Test Year										-		28,558 (19,003)
Adjustment										-	\$	9,555

(G) Purchased Power for Pumping. As discussed in Ref. Item (B), Purchased Power for Pumping is directly related to the volume of water produced and sold. Accordingly, test-year Purchase Power for Pumping was decreased by \$6,449 to match pumping expense to Pro forma Water Sales Revenues. Note that Pro forma Water Sales Revenues was adjusted to the 12 months ended April 30, 2024, while Purchased Power for Pumping was adjusted to the 12 months ended April 15, 2024, the end date of Kentucky Utilities' billing cycle. The adjustment is detailed below with the pro forma information shown in bold font.

	Augusta Reporting Month	KU <u>Service Month</u>	Purchased <u>Power</u>	<u>Totals</u>
Test Year	July 2022	June 2022	\$ 7,565	
	August	July	7,216	
	September	August	7,363	
	October	September	7,405	
	November	October	7,041	
	December	November	7,215	
	January 2023	December	7,529	
	February	January 2023	8,301	
	March	February	6,388	
	April	March	6,340	
	May	April	6,763	
Pro forma June		May	8,287	\$ 87,413
	July	June	8,052	
	August	July	7,519	
	September	August	6,654	
	October	September	6,377	
	November	October	5,731	
	December	November	5,866	
	January 2024	December	6,493	
	February	January 2024	3,104	
	March	February	10,040	
	April	March	6,704	
	May	April 15, 2024	6,137	80,964
Adjustmen	t - Decrease			\$ (6,449)

(H) <u>Chemicals-Water Treatment, Accrual Basis Accounting</u>. Test-year Chemicals-Water Treatment expense was reported in the amount of \$30,870 using a cash-basis of accounting. As discussed below, the test-year amount was incressed by \$5,900 to \$36,770 to convert from cash-basis accounting to accrual accounting.

On June 28, 2022, two days before the beginning of the test year, Augusta Treatment paid for water treatment plant chemicals that cost \$8,881.24. Using cash-basis accounting, Augusta Treatment expensed the entire amount in FYE June 30, 2022. The invoiced order date and ship date for these chemicals was June 22, 2022. The received date is unclear. Assuming the received date was June 22, 2022, and a portion of these chemicals remained in inventory until the next shipment date, October 5, 2022, this batch of chemicals remained

in service for 105 days with a cost of \$84.58 (\$8,881.24 / 105 days) per day. Using accrual accounting, \$761 of the chemical cost would be expensed in FYE June 30, 2021, and \$8,120 would be expensed in the test year as demostrated below.

	<u>FYE</u>	6/30/22	<u>Te</u>	st Year
Number of Days Used		9		96
Times: Cost Per Day	\$	84.58	\$	84.58
Expense	\$	761	\$	8,120

On May 5, 2023, Augusta Treatment received a batch of chemicals with a cost of \$4,525 that was charged to test-year expenses. It is estimated that these chemicals remained in service for approximately 108 days. Using accrual accounting, these chemicals would be expensed during the test-year and FYE June 30, 2024 as follows.

	<u>Te</u>	st Year	FYE	6/30/24
Number of Days Used		55		53
Times: Cost Per Day	\$	41.89	\$	41.89
Expense	\$	2,304	\$	2,220

The net increase to test-year Chemicals-Water Treatment expense necessary to convert from cash-basis accounting to accrual accounting is \$5,900 (\$8,120-\$2,220).

(I) Chemicals-Water Treatment as of April 30, 2024. As discussed in Ref. Item (B), the amount of chemicals used to treat water is directly related to the volume of water produced and sold. To properly match pro forma revenues and expenses, pro forma Chemical-Water Treatment costs were adjusted to the level of expense reported as of April 30, 2024 using accrual accounting.

The cash-basis pro forma expense as of April 30, 2024, is \$31,906. This amount was decreased by \$4,160 to convert to an accrual basis of accounting. On March 20, 2024, and April 10, 2024, chemicals were shipped to the Treatment Department at the cost of \$5,151 and \$1,336, respectively. Payment for the chemicals was made during the pro forma period ended April 30, 2024. It is estimated these chemicals will remain in service for 105 days. Using accrual accounting, \$2,328 would be expensed in pro forma operations as calculated below.

Total Cost  Days in Service	<u>0-Mar</u> ,151.40 105	_	.0-Apr ,336.20	\$ <u>Total</u> 6,487.60
Cost Per Day Pro forma Days in Service	\$ 49.06	\$	12.73 21	
Pro Forma Expense April 30, 2024 Less: Cash Basis Expense	\$ 2,061 (5,151)	\$	267 (1,336)	\$ 2,328 (6,488)
Decrease for Accrual Basis	\$ (3,091)	\$	(1,069)	\$ (4,160)

As a result of the aforementioned adjustments, pro forma Chemicals-Treatment Plant expense was determined to be \$27,746 requiring a decrease of \$9,023 to the test-year accrual basis expense. The following table details the activity in the Chemicals-Treatment Plant general ledger account for the test-year and pro forma operations. The table also details the calculation of the adjustment to the test-year expense with the pro forma information shown in bold font.

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Chemicals - Water Treatment Cash Basis Totals **Accrual Basis** Totals \$ June 2022 \$ 8,881 761 Test Year 8,120 July 2022 August 3,131 3,131 September October 6,548 6,548 November 1,190 1,190 December 6,567 6,567 January 2023 February 8,910 8,910 March April Pro forma May 4,525 1,047 Total Test Year June \$ 30,870 1,257 36,770 July 1,299 **August-Accrued from Prior Year** 922 8,304 August-Paid 8,304 1,954 September 1,954 October November December 9,966 9,966 671 January 2024 671 **February** March 5,151 2,061 Total Pro forma April 1,336 31,906 267 27,746 Adjustment - Decrease (9,023)

(J) Amortize Cost of Engineering Study. As required by the 2021 Agreement, Augusta Treatment coordianted with Bracken District to contract a professional engineer to conduct a comprehensive evaluation of the water treatment plant facility to identify any changes to the methods of operations and capital improvements necessary to improve the plant's efficiently and ensure compliane with state and federal regulations. The total \$25,000 cost of the study was reported in test-year Repairs expenses.

Although for accounting purposes the cost of the study is an expense that may be charged against income in a single reporting period, it was treated as a regulatory asset amortized over the anticipated three-year life of the wholesale water rates calculated in this

analysis. Three-year amortization requires a \$16,667 decrease to test-year expenses calculated as follows.

Cost of Engineering Study	\$ 25,000
Divide by: 3 years	 3
Annual Recovery	8,333
Less: Test Year	 (25,000)
Decrease	\$ (16,667)

(K) <u>Capitalize Cost of New Air Compressor</u>. During the test year, Augusta Treatment incurred \$8,086 to replace an air compressor tank that was installed as a part of the original 1996 water treatment plant construction. The tank's \$8,086 cost was reported as a test-year Repairs expense. The cost of the new tank was removed from test-year expenses and capitalized for depreciation over the water treatment plant's remaining 10-year depreciable life. The annual recovery for depreciation is \$809 as calculated below.

Cost of Replacement Air Compressor	\$ 8,086
Divide by: 10 years	10
Annual Depreciation Recovery	\$ 809

(L) Amortize Legal Fees. Augusta Treatment incurred \$10,269 for legal fees in connection with the malfunctioning master meter previously discussed in Ref. Item (C). Augusta Treatment recognized \$2,142 in the test year and \$8,127 in the FYE June 30, 2022. Although for accounting purposes these legal fees are an expense that may be charged against income in the year the legal services were received, for rate-making purposes they should be treated as a regulatory asset amortized over the anticipated life of the rates calculated in this analysis, three years. Three-year amortization requires a \$1,282 increase to test-year expenses calculated as follows:

Legal Fees Meter Case	\$ 10,269
Divid by: 3 years	3
Annual Recovery	3,423
Less: Test Year	 (2,142)
	 _
Increase	\$ 1,282

- (M) Rate Case Expense. Augusta Treatment anticipates that the total cost of professional services incurred to prepare this rate analysis will be \$8,250. This amount was amortized over the anticipated 3-year life of the wholesale rate calculated in this analysis. Accordingly, test-year expenses were increased by \$2,750 (\$8,250 total cost / 3 years).
- (N) <u>Insurance General Liability</u>. Augusta Treatment obtains general liability insurance from Kentucky League of Cities Insurance Services. The test-year insurance expense was \$11,039, but the amount decreased to \$8,401 for FYE June 30, 2024. Accordingly, test-year expenses were reduced by \$2,638 to allow for rate recovery of \$8,401.
- (O) <u>Depreciation</u>. Augusta Treatment reported \$104,882 for test-year depreciation expense. This amount was reduced by \$42,822 to remove depreciation on assets for which full depreciation had accrued in pro forma operations and to remove depreciation accrued on plant financed through debt proceeds as required by provision 16. g. of the 2016 Contract, which states:

"Depreciation expense shall be included in calculation of the Water Treatment Plant's operating costs, but only such depreciation expense on plant and facilities whose cost is not financed through the issuance of debt and that are in service at the time of the propose rate adjustment."

Calculation of pro forma depreciation without debt financed plant is shown in the following table.

Water Treatment Plant In Service	Service <u>Life</u>	fo	epreciable Basis r Reporting Purposes	not Thi P 20:	bt Financed Depreciable rough Rates ursuant to 16 Contract, ovision 16.g.	Adjusted Depreciable Basis for Rate-Making Purposes	Accumulated Depreciation at 6/30/24	Net Plant t 6/30/24	Dep	o Forma preciation xpense
1996 Water Treatment Plant	38	\$	2,882,702	\$	(1,500,000)	\$ 1,382,702	\$ 2,092,273	\$ 790,429	\$	36,387
1998 Additions	38		89,512		, , ,	89,512	63,600	25,912		2,356
2002 Engineering	38		32,000			32,000	18,526	13,474		842
2005 Lagoon	38		487,855		(100,000)	387,855	244,996	242,858		10,207
2006 Well Recharge	38		209,847			209,847	100,317	109,530		5,522
2006 Air Compressor	10		7,825			7,825	7,825	(0)		782
2010 Radios	15		14,115			14,115	13,409	706		706
2011 Pump	10		1,669			1,669	1,669	(0)		
2012 Pump and Motor	10		56,249			56,249	56,249	-		
2013 Motor	10		6,867			6,867	6,867	(0)		
2014 Pump	10		1,650			1,650	1,650	-		
2013 12" Spool Injection Line	10		7,985			7,985	7,784	200		200
2014 Aeration Disc	10		6,370			6,370	6,370	(0)		
2014 Diaphragm Meter Pump	10		1,829			1,829	1,799	30		30
2014 Benchtop Meter	10		1,098			1,098	1,053	46		46
2014 Spectrophotometer	10		3,955			3,955	3,791	165		165
2015 Backflow Preventer	10		6,124			6,124	5,511	613		613
2014 Furnance	10		5,800			5,800	5,510	290		290
2019 Master Meter BCWD	10		3,313			3,313	1,739	1,574		331
2018 Chemical Feed Pump	10		2,797			2,797	1,609	1,189		280
2020 Polymer Pump	10		2,907			2,907	1,260	1,647		291
2020 AC/Furnance	10		8,946			8,946	3,653	5,294		895
2022 VS Pump	10		4,189			4,189	873	3,316		419
2023 Chevy Colorado	5_		8,500	•		8,500	2,125	6,375		1,700
Total	_	\$	3,854,103							62,060
Less: Test-Year Expense	-			<u>.</u>						(104,882)
Adjustment - Decrease									\$	(42,822)

(P) <u>Depreciation – Post-Test-Year Plant Addition – New Well</u>. Augusta Treatment's source of raw water supply is four underground wells. Subsequent to the test-year, well no. 2 was replaced at a total cost of \$76,295. This amount includes \$9,455 incurred for repair to the underground electrical supply line to a separate well that was damaged during construction of the new well. The total cost of the new well was depreciated over 30 years as follows:

New Well No. :	_
	•
	/

<u>Date</u>	<u>Vendor</u>		Cost	
8/24/2023	Moody's of Dayton	\$	23,380	
9/21/2023	Moody's of Dayton		21,496	
9/21/2023	Moody's of Dayton		8,964	
9/21/2023	Moody's of Dayton		13,000	
11/29/2023	Bess Contracting	9,455		
		<del>-</del>		
Total Cost			76,295	
Divide by: 30	Years		30	
Increase to 7	Test-Year Depreciation	\$	2,543	

(Q) <u>Taxes Other Than Income Taxes</u>. Test-year FICA taxes were increased by \$940 as follows to account for the level of taxes that Augusta Treatment will pay on pro forma wages.

Pro forma Wages	\$ 195,347
Times: FICA Tax Rate	7.65%
Pro forma FICA	14,944
Less: Test Year	(14,004)
Increase	\$ 940

### Schedule B ALLOCATION OF ADJUSTED TEST-YEAR OPERATING EXPENSES City of Augusta Water Treatment Plant, Test Year Ended June 30, 2023

The table below demonstrates that, by subtracting interest income from pro forma operating expenses, the amount of pro forma operating expenses recoverable through rates is \$480,126.

Pro forma Operating Expenses	\$ 481,535
Less: Interest Income	 (1,409)
Pro forma Operating Expenses to be Recovered through Rates	\$ 480,126

Pursuant to the 2016 Contract, Section 16.e., Augusta Distribution's pro forma operating costs must be assigned to Bracken District based on the percentage of water delivered to each wholesale customer during the test year. Allocation of proforma expenses using the test-year water delivery allocation factor appears below.

	Test-Year			Expense
	<u>Gallons</u>	<u>Percentage</u>	<u>A</u>	llocation
Augusta Distribution	52,539,444	23.28%	\$	111,765
Bracken District	173,162,980	76.72%		368,362
Total	225,702,424	100.00%	\$	480,126

Strict enforcement of the 2016 Contract, Section 16.e., requirement is not practical or reasonable in this instance considering significant adjustments were made to the test-year volume of water sold to each wholesale customer (See Schedule A, Ref. Items (B) and (D). Accordingly, operating costs were not allocated in this analysis based on test-year water sales. They were allocated using the adjusted test-year water sales volumes as follows.

	Pro forma		I	Expense
	<u>Gallons</u>	<u>Percentage</u>	<u>A</u>	<u>llocation</u>
Augusta Distribution	42,433,508	21.55%	\$	103,459
Bracken District	154,489,118	78.45%		376,667
			·	
Total	196,922,626	100.00%	\$	480,126

## Schedule C DEBT SERVICE REQUIREMENT City of Augusta Water Treatment Plant, Test Year Ended June 30, 2023

#### Three-Year Average in Accordance with 2016 Contract, Section 16.c. and d.

Fiscal						
Year End	Princip	oal	Inte	erest	Tota	al
6/30/2025	\$	57,300	\$	28,099	\$	85,399
6/30/2026		62,400		26,155		88,555
6/30/2027		62,500		24,127		86,627
Three-Year Total						260,582
Divide by: 3 Years						3
Three-Year Annual Average						86,861
Times: 1.20						120%
Three-Year Annual Average Deb	t Service	Requirement			<u>\$</u>	104,233

Allocation of the Debt Service Requirement to the wholesale customers using the adjusted test-year water delivery allocator is shown below.

#### Debt Service Allocated Based on Pro Forma Water Sales Volume

	<u>Gallons</u>	<u>Percentage</u>	<u>Total</u>
Augusta Distribution	42,433,508	21.55%	\$ 22,460
Bracken District	154,489,118	78.45%	81,772
Total	196,922,626	100.00%	\$ 104,233

The 2016 Contract, Section 16.d., limits the level of debt service allocable to Bracken District to 64 percent. Allocation of the Debt Service Requirement in accordance with the contract's limitation shifts more of the Debt Service Requirement to Augusta Distribution as follows:

### Debt Service Allocated Pursuant to 2016 Contract, Section 16.d.

	<u>Percentage</u>	<u>Total</u>
Augusta Distribution	36%	\$ 37,524
Bracken District	64%	 66,709
Total	100%_	\$ 104,233

### Schedule D CALCULATION OF WHOLESALE WATER RATES City of Augusta Water Treatment Plant, Test Year Ended June 30, 2023

The 2016 Contract, Section 16.i., states:

"The adjusted wholesale rate to Bracken District shall be the sum of the debt service costs and operating costs allocated to Bracken District divided by the Water Treatment Plant's **test period sales** to Bracken District."

As previously discussed in Schedule B, calculations made in this analysis using "test period sales" is not practical or reasonable given the significant adjustments made to the test-year volume of water sold to wholesale customers. The wholesale rates calculated below were determined using the adjusted test-year water sales volumes. The debt service component of the rate calculation was allocated in accordance with the 2016 Contract, Section 16.d.

	Augusta  Distribution		_	Bracken District
Expense Allocation Debt Service Allocation, 36 / 64	\$	103,459 37,524	\$	376,667 66,709
Revenue Required Divide by: Adjusted Test-Year Gallons		140,983 42,434		443,376 154,489
Rate Per Thousand Gallons	\$	3.322	\$	2.870

Disregarding the contractual 64 percent debt service allocation limit, the rate would be unified at \$2.97 as follows:

	Unified
	Rate
Expense Allocation	\$480,126
Debt Service Allocation	104,233
Revenue Required	584,359
Divide by: Adjusted Test-Year Gallons	196,923
Rate Per Thousand Gallons	\$ 2.967