

***RATE SUFFICIENCY ANALYSIS
FOR
WATER RATES***

GREEN-TAYLOR WATER DISTRICT

December 4, 2023

Prepared by
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EXECUTIVE SUMMARY

The Final Order from the Public Service Commission in Case No. 2022-00246 required that Green-Taylor Water District perform annual reviews of its rate sufficiency. The Order further required that the first of these studies be performed and submitted to the PSC in 2023. Green-Taylor requested assistance from the Kentucky Rural Water Association with performing the first analysis and with filing the report. The analysis is complete, and the results are presented in this report.

In accordance with PSC's Order, the study is based on the 2022 Annual Report that is on file with the Commission. The Schedule of Adjusted Operations (SAO) lists the reported revenues and expenses for 2022 and applies required adjustments. The adjustments are to recognize any changes in operations after 2022 and include certain other items that are commonly required by the PSC. The specific adjustments for Green-Taylor are shown in the SAO with notes for each provided on the Reference pages. Total pro forma operating revenues for the District are \$2,947,600 and total pro forma operating expenses are \$2,505,626.

The SAO also shows the computations for Revenue Requirements. Utilizing the Debt Service method accepted by the PSC and including the new KIA loan, the total Revenue Required From Water Sales comes to \$2,782,295. That amount is less than existing pro forma sales which indicates that with the adjustments required by the PSC the District is operating at a surplus of \$38,991. ***Therefore, this analysis indicates that currently Green-Taylor's water rates are sufficient.***

Computations from this analysis are included in the Schedule of Adjusted Operations with details provided on the Reference pages and in Tables A, B, and C.

SCHEDULE OF ADJUSTED OPERATIONS
Green-Taylor Water District

	<u>Test Year</u>			
	<u>(CY 2022)</u>	<u>Adjustments</u>	<u>Ref.</u>	<u>Pro Forma</u>
<u>Operating Revenues</u>				
Total Retail Metered Sales	\$ 2,727,811	65,905	A	\$ 2,793,716
Sales for Resale	25,583	1,988	A	27,571
Other Water Revenues:				
Forfeited Discounts	-	45,102	B	45,102
Misc. Service Revenues	98,560	(40,595)	C	57,965
Other Water Revenues	46,602	(45,102)	B	
	-	21,746	D	23,246
Total Operating Revenues	\$ 2,898,556			\$ 2,947,600
<u>Operating Expenses</u>				
Operation and Maintenance				
Salaries and Wages - Employees	486,515	(18,200)	E	
		21,093	F	
		(14,175)	G	475,233
Salaries and Wages - Officers	-	18,200	E	18,200
Employee Pensions and Benefits	203,934	88,354	H	
		(3,184)	I	
		(54,778)	J	234,326
Purchased Water	890,692	55,821	K	946,513
Purchased Power	82,419			82,419
Materials and Supplies	172,679	(33,075)	G	139,604
Contractual Services	40,817			40,817
Transportation Expenses	46,893			46,893
Insurance	33,693			33,693
Advertising	332			332
Bad Debt	12,157			12,157
Miscellaneous Expenses	74,951			74,951
Total Operation and Mnt. Expenses	2,045,082			2,105,139
Depreciation Expense	342,389	14,552	L	356,941
Taxes Other Than Income	41,933	1,614	F	43,547
Total Operating Expenses	\$ 2,429,404			\$ 2,505,626
REVENUE REQUIREMENTS				
Pro Forma Operating Expenses				\$ 2,505,626
Plus: Avg. Annual Principal and Interest Payments			M	379,665
Additional Working Capital			N	75,933
Total Revenue Requirement				\$ 2,961,224
Less: Other Operating Revenue				(126,313)
Income from Utility Plant Leases				(21,324)
Gains for Disposition of Property	50,917	(50,917)	O	-
Interest Income				(30,244)
Nonutility Income				(1,047)
Revenue Required From Water Sales				\$ 2,782,295
Revenue from Sales at Present Rates				2,821,287
Surplus Revenue With Required Adjustments				\$ 38,991
Percentage Surplus above Required Water Sales				1.40%

REFERENCES

- A. The Current Billing Analysis (Table A) results in pro forma metered sales revenue of \$2,793,716. This reflects a full year at the increased retail rates that were effective in early 2023 and with applicable billing adjustments, indicates an increase in reported Metered Sales of \$65,905 is required. With the 2023 rate increases, Sales for Resale will also increase by \$1,988 to a total of \$27,571.
- B. Forfeited Discounts (Late Fees) were reported with Other Water Revenues. To provide more detail this revenue is reclassified to its own category.
- C. The PSC's Final Order in Case No. 2022-00246 required a reduction in amounts the District can assess for most of its nonrecurring charges. A deduction of \$40,595 from reported Misc. Service Revenues is required to recognize the changes in nonrecurring charges.
- D. The amount reported for Other Water Revenues was understated by \$21,746. This adjustment brings the total for this item to \$23,246.
- E. Commissioners' Salaries were reported with Employee Salaries. To provide more detail this expense is reclassified to its own category.
- F. Changes in the number of employees and wage rates since 2022 result in an increase in Salaries and Wages expense of \$21,093 and an increase in payroll taxes of \$1,614.
- G. During the test year labor and materials expenses for new meter installations were charged to operations, but those costs should be capitalized. The amount of tap fees collected for these meters can be substituted for the actual installation expenses. Thirty percent of total tap fees (\$14,175) is deducted from Salaries and Wages and 70 percent (\$33,075) is deducted from Materials and Supplies expense. The total amount of tap fees is also used in the Depreciation Expense Adjustments (Table B) to recognize the addition of these new capital assets in 2022.
- H. The reported figure for Employee Pensions and Benefits expense was understated due to a deduction of \$88,354 for Pension and OPEB liabilities and deferred inflows and outflows. These items should not be included with annual operating expenses and therefore an adjustment is required.
- I. A decrease in the employer's contribution rate charged by CERS results in lower payments for the retirement program. These payments are estimated to decrease by \$3,184.

- J. The District pays a high percentage of its employees' health insurance premiums. The PSC requires that these expenses be adjusted to be consistent with the Bureau of Labor Statistics' national average for an employer's share of health insurance premiums. Average employer shares from BLS are currently 78 percent for single coverage and 67 percent for family plans. The PSC allowable employer share for dental insurance is 60 percent. Applying these percentages to premiums to be paid in the current year results in a deduction from 2022 benefits expense of \$54,778.
- K. The District's wholesale cost of water from Campbellsville has increased by a total of \$0.38 per thousand gallons. Therefore, an increase of \$55,821 is required to the test year Purchased Water expense to adjust for the higher rate.
- L. The PSC requires adjustments to a water utility's depreciation expense when asset lives fall outside the ranges recommended by NARUC in its publication titled "Depreciation Practices for Small Utilities". Therefore, adjustments are included to bring asset lives to the midpoint of the recommended ranges. Assets included in the current construction project and new meters installed in 2022 are also added. See Table B.
- M. The annual debt service payments for the District's loans are shown in Table C. The five-year average of these payments is added in the revenue requirement calculation.
- N. The amount shown in Table B for coverage on long term debt is included in the revenue requirement as Additional Working Capital.
- O. Gains for Disposition of Property is extraordinary income and should not be included in the revenue requirement computation.

Table A
CURRENT BILLING ANALYSIS - 2022 USAGE & EXISTING RATES
Green-Taylor Water District

SUMMARY

	No. of Bills	Gallons Sold	Revenue
5/8" X 3/4" Meters	62,571	254,810,795	\$ 2,666,318
1" Meters	713	9,281,509	74,701
2" Meters	233	31,302,607	174,338
Totals	63,517	295,394,911	\$ 2,915,356
		Less applicable billing adjustments	(121,640)
		Pro Forma Retail Sales Revenue	\$ 2,793,716
		Pro Forma Wholesale Sales Revenue	27,571
		Total Sales Revenue	2,821,287

5/8" x 3/4" METERS

	USAGE	BILLS	TOTAL GALLONS	FIRST 2,000	NEXT 3,000	NEXT 5,000	ALL OVER 10,000
FIRST	2,000	24,685	25,493,025	25,493,025			
NEXT	3,000	24,662	81,956,063	49,324,000	32,632,063		
NEXT	5,000	9,712	65,739,268	19,424,000	29,136,000	17,179,268	
ALL OVER	10,000	3,512	81,622,439	7,024,000	10,536,000	17,560,000	46,502,439
		62,571	254,810,795	#####	72,304,063	34,739,268	46,502,439

REVENUE BY RATE INCREMENT

	BILLS	GALLONS	RATE	REVENUE
FIRST	2,000	62,571	\$ 23.15	\$ 1,448,519
NEXT	3,000	72,304,063	9.73	703,519
NEXT	5,000	34,739,268	7.87	273,398
ALL OVER	10,000	46,502,439	5.18	240,883
TOTAL	62,571	254,810,795		\$ 2,666,318

1" METERS

	USAGE	BILLS	TOTAL GALLONS	FIRST 5,000	NEXT 5,000	ALL OVER 10,000
FIRST	5,000	359	918,005	918,005	-	-
NEXT	5,000	199	1,419,960	995,000	424,960	-
ALL OVER	10,000	155	6,943,544	775,000	775,000	5,393,544
		713	9,281,509	2,688,005	1,199,960	5,393,544

REVENUE BY RATE INCREMENT

	BILLS	GALLONS	RATE	REVENUE
FIRST	5,000	713	\$ 52.34	\$ 37,318
NEXT	5,000	1,199,960	7.87	9,444
ALL OVER	10,000	5,393,544	5.18	27,939
TOTAL	713	9,281,509		\$ 74,701

2" METERS

	<u>USAGE</u>	<u>BILLS</u>	<u>GALLONS</u>	<u>FIRST 20,000</u>	<u>ALL OVER 20,000</u>
FIRST	20,000	62	680,997	680,997	-
ALL OVER	20,000	171	30,621,610	3,420,000	27,201,610
		233	31,302,607	4,100,997	27,201,610

REVENUE BY RATE INCREMENT

	<u>BILLS</u>	<u>GALLONS</u>	<u>RATE</u>	<u>REVENUE</u>
FIRST	20,000	233	4,100,997	\$ 143.49 \$ 33,433
ALL OVER	20,000		27,201,610	5.18 140,904
TOTAL	233	31,302,607		\$ 174,338

WHOLESALE CUSTOMERS

	<u>GALLONS</u>	<u>RATE</u>	<u>REVENUE</u>
Larue Co. Water District #1	3,458,880	3.16	10,930
City of Greenburg	6,007,379	2.77	16,640
TOTAL			\$ 27,571

Table B
DEPRECIATION EXPENSE ADJUSTMENTS
Green-Taylor Water District

<u>Asset Group</u>	<u>Original</u>	<u>Reported</u>	<u>Pro Forma</u>		<u>Depreciation</u>
	<u>Cost</u>	<u>Depr. Exp.</u>	<u>Life</u>	<u>Depr. Exp.</u>	<u>Expense Adjustment</u>
General Pumping Plant	\$ 818,990	\$ 18,315	37.5	\$ 21,840	\$ 3,525
Pumping Equipment	10,984	166	20.0	549	383
Reservoirs and Tanks	1,430,411	35,760	45.0	31,787	(3,973)
Tank Repairs and Painting	76,312	7,631	15.0	5,087	(2,544)
Transmission & Distribution Mains	13,081,545	222,692	62.5	209,305	(13,387)
Services	1,500	75	40.0	38	(38)
Structures and Improvements	224,520	8,854	37.5	5,987	(2,867)
Office Furniture & Equipment	6,943	527	22.5	309	(219)
Transportation Equipment	136,299	19,260	7.0	19,471	212
Power Operated Equipment	194,881	6,706	12.5	15,590	8,884
Communications & Electronics	187,790	18,925	10.0	18,779	(146)
Items Disposed Of	-	3,477		-	(3,477)
SUBTOTALS		342,389		328,742	(13,647)
New Meters & Services - 2022	47,250	-	40.0	1,181	1,181
<u>2019 Water Sys. Improvements:</u>					
Pump Sta. Sturct. & Impr'mts	101,351	-	37.5	2,703	2,703
Pumping Equipment	234,844	-	20.0	11,742	11,742
Other Pumping Plant	128,309	-	25.0	5,132	5,132
Tank Site Piping Modification	51,842	-	62.5	829	829
Interior Tank Recoating	78,411	-	15.0	5,227	5,227
Structural Tank Repairs	62,243	-	45.0	1,383	1,383
TOTALS	\$ 16,874,424	\$ 342,389		\$ 356,941	\$ 14,552

2019 Water System Improvements Project
KIA F19-018 Funding (Case No. 2021-00233)

<u>Asset Class</u>	<u>Constr. Cost</u>	<u>Percent</u>	<u>Project Cost</u>
Pump Sta. Structures & Impr'mts	78,200	15.43%	101,351
Pumping Equipment	181,200	35.74%	234,844
Other Pumping Plant	99,000	19.53%	128,309
Tank Site Piping Modification	40,000	7.89%	51,842
Interior Tank Recoating	60,500	11.93%	78,411
Structural Tank Repairs	48,025	9.47%	62,243
Totals	\$ 506,925		\$ 657,000

Table C
DEBT SERVICE SCHEDULE
Green-Taylor Water District
CY 2024 - 2028

C.Y.	KIA Loan F18-005			KACO Refinancing			KIA Loan F19-018			TOTALS
	Principal	Interest	Fees	Principal	Interest	Fees	Principal	Interest	Fees	
2024	74,720	27,971	3,996	210,000	66,067	4,850	24,156	10,234	1,279	423,273
2025	76,033	26,657	3,808	225,000	55,192	4,325	24,642	9,748	1,219	426,624
2026	77,369	25,321	3,618	240,000	43,567	3,763	25,137	9,253	1,157	429,184
2027	78,729	23,961	3,423	200,000	32,567	3,163	25,643	8,748	1,094	377,327
2028	86,219	23,340	3,334	65,000	25,942	2,663	26,158	8,232	1,029	241,916
TOTALS	393,070	127,250	18,179	940,000	223,334	18,763	125,736	46,215	5,778	\$ 1,898,324

5 Year Average Principal, Interest & Fees \$ 379,665

5 Year Average Debt Service Coverage 75,933