



# The City of Crossville, Tennessee

## Water and Wastewater Utility Review

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Municipal Technical Advisory Service  
INSTITUTE *for* PUBLIC SERVICE

### **Purpose**

The City of Crossville approached the Municipal Technical Advisory Service (MTAS) about conducting a utility study and assist the City with assessing the current and projected financial condition of its water and wastewater utility systems. The City signed a letter of agreement for the study and this report is the culmination of and reporting on the results of the study.

*Disclaimer: MTAS has used both audited numbers from previously audited financial statements available at the State of Tennessee Comptroller's website, and well as current year projections provided by the City. In discussions MTAS was provided data concerning current and future capital improvement planning as well as ongoing discussion and review of drafts for comments and correction.*

### **Overview**

The City of Crossville is located in Cumberland County on the Cumberland Plateau. The population in the 2020 census was 12,071. The City provides water and sewer service to residents inside as well as outside its city limits. The City produces its own water and operates water and sewer treatment plants. The City also has entered into agreements to sell water to the Grandview Utility District, South Cumberland Utility District and Fall Creek Falls Utility District.

The 2023 audited financial statements show that the system had approximately 5,756 water customers and 5,512 sewer customers located inside its limits. It had 8,302 water customers and 70 sewer customers located outside its city limits. These total to 14,058 water customers and 5,582 sewer customers. The Mayor and City Council serve as the utility board for the City and serve in the following capacities:

- Approve and sets rate by ordinance
- Provide guidance for staff
- Approve and adopts the utility budget
- Approve purchases and contracts for the utility
- Contract with third parties such as auditors and engineers
- Other management functions as required by the utility

### **State Requirements for the Financial Operation of Public Utilities**

The State of Tennessee requires that municipal utility systems be financially self-supporting. To provide oversight and support to ensure that municipal water and sewer enterprises are financially sustainable, the State has created the Tennessee Board of Utility Regulation (TBOUR). This Board oversees financially distressed water and wastewater systems. Per State law, TCA 68-221-1010, a system would be considered in a financial distress if it meets any of the following conditions:

- Has a deficit total net position in any one year.
- Has a negative statutory change in net position for the two consecutive years.
- Is in default on any of its debt instruments.

A statutory change in net position is defined as the following:

**Commented [SW1]:** Add: Has a deficit unrestricted net position in any one year.

Change in Net Position (GAAP Basis)  
 Less: Grants-Capital  
 Grants-Operating  
 Capital Contributions  
Interfund Transfers from Other Funds  
 Equals statutory change in net position

With respect to whether or not a utility system is “financially distressed”, the Tennessee legislature has recently passed legislation that appears to alter that definition. The legislation is as follows:

**Commented [SW2]:** You may not want to include this until MTAS gets clarification on what it actually means.

ON APRIL 17, 2024, THE SENATE ADOPTED AMENDMENT #2 AND PASSED SENATE BILL 129, AS AMENDED. AMENDMENT #2 rewrites the bill to, instead, **prohibit the comptroller of the treasury, in determining whether a utility system is financially distressed, from considering the straight-line depreciation of an asset acquired or completed in the 12 calendar months preceding the audit, so long as the asset's depreciation is calculated in accordance with generally accepted accounting principles.** This amendment only applies to the determination of whether a utility system is financially distressed. A utility system's financial statements must still be completed in accordance with generally accepted accounting principles. This amendment only applies if it is approved by a simple majority vote of the governing body of a utility system at a meeting of the governing body.

For the purpose of this report I have included depreciation expense in my calculations and considered it to be part of operating expenses. This bill noted above will be analyzed by various stakeholders and additional analysis offered in the near future. From the language noted above, it appears that at best is simply delays using depreciation for one year (acquired or completed in the 12 calendar months preceding the audit).

Following is a summary of the statutory change in net position for years reviewed:

Water:

	<u>2021</u>	<u>2022</u>	<u>2023</u>
TOTAL ALL OPERATING REVENUES	\$ 7,880,034	\$ 8,060,604	\$ 8,355,701
TOTAL ALL OP/NONOP EXPENSES	\$ 7,825,532	\$ 7,103,708	\$ 7,598,123
Change in Net Position	\$ 54,501	\$ 956,896	\$ 757,578

Sewer:

	<u>2021</u>	<u>2022</u>	<u>2023</u>
Operating Revenues:		5.40%	2.56%
Operating Revenues:	\$ 3,746,526	\$ 3,887,280	\$ 3,893,352
Total Operating Expenses	3,965,504	3,749,699	3,626,993
	\$ (218,977)	\$ 137,581	\$ 266,359

Note that for the past three audited years the City has had a positive statutory change in net position for water and two of three years for sewer. The year of loss for sewer was primarily the result of significant increases in pump station and grinder pump expenses.

Estimated statutory change in net position for the current year and following, **with no increase in rates** shows:

Water:

	2024	2025	2026	2027	2028
TOTAL ALL OPERATING REVENUES	\$ 8,379,433	\$ 8,588,919	\$ 8,803,642	\$ 9,023,733	\$ 9,249,326
TOTAL ALL OP/NONOP EXPENSES	\$ 7,914,926	\$ 8,355,877	\$ 8,735,960	\$ 9,034,493	\$ 9,453,229
Change in Net Position	\$ 464,507	\$ 233,042	\$ 67,682	\$ (10,761)	\$ (203,903)

Sewer:

	2024	2025	2026	2027	2028
Operating Revenues:	4.13%	2.50%	2.50%	2.50%	2.50%
Operating Revenues:	\$ 4,021,621	\$ 4,153,087	\$ 4,258,664	\$ 4,366,755	\$ 4,477,424
Total Operating Expenses	3,738,039	4,043,689	4,227,790	4,474,264	4,783,182
Net Operating Income (Loss)	\$ 283,581	\$ 109,397	\$ 30,874	\$ (107,508)	\$ (305,757)

#### **Factors Contributing to Potential Loss:**

For both water and sewer, based on historic data a factor of 2.5% annual growth was used for revenues. For expenses a factor of 3% annual growth was used. There are numerous factors that affect expenses and while some are fairly predictable (salaries, payroll taxes, insurance) others are not (repairs and maintenance). In a hypothetical scenario where expenses outpace revenues it is inevitable that at some point a loss will occur.

The bigger issue the City is facing is the large dollar amount of capital asset additions that are in process or planned for the near future. Over \$20 million in additions are currently in process or about to begin. The City has a comprehensive CIP that includes additional items over the next several years.

Thirdly, the City is planning to build a new dam that could cost \$35 - \$40 million in the near future. These capital additions must be depreciated over their useful lives and included in operating expenses. In projecting the effect of depreciation for water depreciation expense was systematically increased about \$350,000 over five years. **This increase DOES NOT include depreciation for the dam**, as the cost and date of completion are not certain. However, note that at a cost of \$35 million and an estimated useful life of 100 years (as proposed), this would result in an additional \$350,000 depreciation annually.

For sewer increases total an additional \$350,000. While it is difficult to know when assets will be placed in service, one can see that this has a significant impact on net operating income: a total of \$700,000 additional depreciation over five years. By the estimates used, water depreciation would rise from \$1.8 million in 2024 to \$2.15 million in 2028. For sewer the increase would be from \$1.25 million to \$1.6 million.

Another factor resulting from capital asset additions is interest expense. While the City will explore every opportunity to obtain grants and will use some cash on hand, it may be necessary to borrow additional funds to complete the planned projects. In working with the finance director we estimated that annual interest expense on water could rise to from \$578,000 in 2024 to \$735,000 by 2028. Annual sewer interest expense could rise from \$110,000 to \$380,000 by 2028.

When you factor in projected revenue and expense growth, including depreciation and interest, if the City does not increase utility rates it will most likely face a substantial net operation loss in both water and sewer. This is illustrated in the charts above.

Moving Forward and Increasing Revenue to Alleviate Potential Loss

As noted based on the trending of revenues and expenses, and other factors such as repairs and maintenance, the City could begin to experience an overall loss in water and sewer. Ie., a statutory change (loss) in net position. Two options were considered as viable solutions. One would be to initiate a system wide rate increase. The other is to reduce the minimum bill from 2,000 gallons to 1,500 gallons. My recommendation to the City is to implement a 3.5% rate increase beginning July 1, 2024, and with the assistance of MTAS review annually the need for an additional 3.5% increase. The model presented for the 3.5% option includes the increase for each year shown.

Commented [SW3]: This is OK, but you may suggest that the city consider phasing out including any usage on the base bill over the next couple of years.

A comparison of the two scenarios follows:

Rate increase reducing minimum billing to 1,500 gallons:

Water:

	2024	2025	2026	2027	2028
TOTAL ALL OPERATING REVENUES	8,379,433	9,178,918	9,311,016	9,543,791	9,782,386
TOTAL ALL OP/NONOP EXPENSES	7,914,928	8,355,877	8,735,956	9,034,492	9,453,230
	\$ 464,506	\$ 823,041	\$ 575,059	\$ 509,299	\$ 329,156
Capital Contributions and Grants	\$ 2,168,513	\$ 2,000,000	\$ 1,500,000		
Catoosa Cap Contrib/Grants	-	-	-	-	-
Change in Net Position	2,633,018	2,823,041	2,075,059	509,299	329,156
Sewer Change in Net Position	1,729,256	366,691	294,600	162,811	(28,681)
Combined Change in Net Position	\$ 4,362,275	\$ 3,189,731	\$ 2,369,659	\$ 672,110	\$ 300,476

Sewer:

	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>
<b>Operating Revenues:</b>	4.13%	2.50%	9.35%	2.50%	2.50%
	<b>\$ 4,021,621</b>	<b>\$ 4,410,380</b>	<b>\$ 4,522,389</b>	<b>\$ 4,637,074</b>	<b>\$ 4,754,501</b>
	3.29%	9.67%	2.54%	2.54%	2.53%
<b>Adjusted Operating Expenses</b>	<b>\$ 3,809,893</b>	<b>\$ 4,086,689</b>	<b>\$ 4,215,790</b>	<b>\$ 4,347,264</b>	<b>\$ 4,481,182</b>
<b>Nonoperating Income (Expense)</b>					
Interest Income	\$ 258,853	\$ 230,000	\$ 205,000	\$ 180,000	\$ 155,000
Rental Income					
Sale of Surplus Property					
Insurance Recoveries					
Bond Service Fees	(1,000)	(1,000)	(1,000)	(1,000)	(1,000)
Bond Interest and Fiscal Charges	(110,000)	(110,000)	(140,000)	(230,000)	(380,000)
Transfers to General Fund	(76,000)	(76,000)	(76,000)	(76,000)	(76,000)
	<b>\$ 71,853</b>	<b>\$ 43,000</b>	<b>\$ (12,000)</b>	<b>\$ (127,000)</b>	<b>\$ (302,000)</b>
	3,738,039	4,043,689	4,227,790	4,474,264	4,783,182
<b>Net Operating Income (Loss)</b>	<b>\$ 283,581</b>	<b>\$ 366,691</b>	<b>\$ 294,600</b>	<b>\$ 162,811</b>	<b>\$ (28,681)</b>

Rate increase of 3.5% annually:

Water:

	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>
<b>TOTAL ALL OPERATING REVENUES</b>	<b>\$ 8,379,433</b>	<b>\$ 8,872,619</b>	<b>\$ 9,402,387</b>	<b>\$ 9,964,640</b>	<b>\$ 10,561,160</b>
<b>TOTAL ALL OP/NONOP EXPENSES</b>	<b>\$ 7,914,928</b>	<b>\$ 8,355,877</b>	<b>\$ 8,735,956</b>	<b>\$ 9,034,492</b>	<b>\$ 9,453,230</b>
	\$ 464,506	\$ 516,742	\$ 666,430	\$ 930,148	\$ 1,107,930
Capital Contributions and Grants	\$ 2,168,513	\$ 2,000,000	\$ 1,500,000		
Catoosa Cap Contrib/Grants	-	-	-	-	-
Change in Net Position	<b>\$ 2,633,018</b>	<b>\$ 2,516,742</b>	<b>\$ 2,166,430</b>	<b>\$ 930,148</b>	<b>\$ 1,107,930</b>
Sewer Change in Net Position	<b>\$ 1,729,256</b>	<b>\$ 222,034</b>	<b>\$ 268,129</b>	<b>\$ 264,271</b>	<b>\$ 211,078</b>
<b>Combined Change in Net Position</b>	<b>\$ 4,362,275</b>	<b>\$ 2,738,776</b>	<b>\$ 2,434,559</b>	<b>\$ 1,194,419</b>	<b>\$ 1,319,008</b>

Sewer:

	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>
<b>Operating Revenues:</b>	4.13%	2.50%	6.00%	6.09%	6.09%
<b>Adjusted Operating Expenses</b>	<b>\$ 3,809,893</b>	<b>\$ 4,086,689</b>	<b>\$ 4,215,790</b>	<b>\$ 4,347,264</b>	<b>\$ 4,481,182</b>
Nonoperating Income (Expense)					
Interest Income	\$ 258,853	\$ 230,000	\$ 205,000	\$ 180,000	\$ 155,000
Rental Income					
Sale of Surplus Property					
Insurance Recoveries					
Bond Service Fees	(1,000)	(1,000)	(1,000)	(1,000)	(1,000)
Bond Interest and Fiscal Charges	(110,000)	(110,000)	(140,000)	(230,000)	(380,000)
Transfers to General Fund	(76,000)	(76,000)	(76,000)	(76,000)	(76,000)
	<b>\$ 71,853</b>	<b>\$ 43,000</b>	<b>\$ (12,000)</b>	<b>\$ (127,000)</b>	<b>\$ (302,000)</b>
	3,738,039	4,043,689	4,227,790	4,474,264	4,783,182
<b>Net Operating Income (Loss)</b>	<b>\$ 283,581</b>	<b>\$ 240,807</b>	<b>\$ 308,345</b>	<b>\$ 328,367</b>	<b>\$ 301,704</b>
Capital Contributions/Grants	1,445,675				
Change in Net Position	<b>\$ 1,729,256</b>	<b>\$ 240,807</b>	<b>\$ 308,345</b>	<b>\$ 328,367</b>	<b>\$ 301,704</b>

The data above shows that an annual increase of 3.5% results in more revenue than the reduction in minimum usage and thus an increased change in net position. While these charts make the assumption that increases will occur annually on July 1, it is recommended that as previously noted an annual review should be done. With the myriad of capital improvements both in process and being considered expenses can change significantly based on:

- Actual date of completion vs. what is expected
- Actual costs of completion given an economic environment of inflationary prices
- The addition/deletion of capital projects not known at this time

### Summary

The City of Crossville has done a very good job in past years remaining profitable for the most part in its utility systems. However, with rising costs... pressures on salaries, inflationary cost increases and a very significant volume of in process and anticipated capital asset additions, it is recommended that the City increase its water and sewer rates July 1, 2024 to proactively address potential negative changes in net position that financial models show could occur in the near future. MTAS can assist in an annual review once audited financial statements are completed in the coming years. This approach allows for flexibility given the uncertainty of inflationary pressures and when new capital assets will be placed into service and depreciated.

MTAS wishes to thank the City for allowing us to assist in this process. Finance Director Fred Houston has been a valuable resource of information and insight throughout this process. We look forward to serving you in the future.