

**CREDIT OPINION**

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# Knoxville (City of) TN Water Enterprise

## Update to credit analysis

**Summary**

Knoxville Water Enterprise, TN (Aa1 stable revenue rating) benefits from a substantial and mature customer base which services the Knoxville (Aa1 stable) area. In addition, the system is well managed and revenues continue to provide solid debt service coverage and liquidity, a trend which is expected to continue going forward. While the enterprise's debt profile is somewhat above-average with a fiscal 2025 debt to operating revenues ratio of 2.62 times, we expect it will remain manageable given affordable future debt plans and anticipated annual rate increases.

**Credit strengths**

- » Ample water supply and treatment capacity
- » Well-managed financial operations and conservative internal policies
- » Demonstrated willingness to increase rates to maintain sound financial metrics

**Credit challenges**

- » Moderate planned debt issuance over next five years
- » Customer base is mature and consumption continues to decline
- » Alternate supply options remain limited

**Rating outlook**

The stable outlook reflects the expectation that the system will continue to proactively review and adjust rates to maintain healthy financial metrics. The outlook also reflects the district's stable customer base and service area.

**Factors that could lead to an upgrade**

- » Decrease in debt to operating revenues ratio to below 2.0 times annual revenues
- » Ongoing strengthening of debt service coverage and liquidity levels
- » Sizeable system growth

## Factors that could lead to a downgrade

- » Inability to implement rate increases sufficient to maintain sound financial metrics
- » Decline in debt service coverage to below 1.8 times
- » Reduced days cash on hand to below 200 days

## Key indicators

Exhibit 1

### Knoxville (City of) TN Water Enterprise

Knoxville (City of) TN Water Enterprise					
System Characteristics					
Asset Condition (Net Fixed Assets / Annual Depreciation)	34 years				
System Size - O&M (\$000)	\$36,084				
Service Area Wealth: MFI % of US median	73.70%				
Legal Provisions					
Rate Covenant (x)	1.20x				
Debt Service Reserve Requirement	No DSRF (Baa and Below)				
Management					
Rate Management	Aaa				
Regulatory Compliance and Capital Planning	Aa				
Financial Strength					
	2021	2022	2023	2024	2025
Operating Revenue (\$000)	\$61,800	\$64,558	\$68,703	\$72,896	\$77,462
System Size - O&M (\$000)	\$28,078	\$30,151	\$33,304	\$35,949	\$36,084
Net Revenues (\$000)	\$34,042	\$35,044	\$37,220	\$39,995	\$44,807
Net Funded Debt (\$000)	\$194,312	\$187,068	\$180,499	\$192,009	\$203,327
Annual Debt Service (\$000)	\$14,544	\$13,886	\$14,120	\$14,076	\$15,875
Annual Debt Service Coverage (x)	2.3x	2.5x	2.6x	2.8x	2.8x
Cash on Hand	414 days	385 days	294 days	244 days	390 days
Debt to Operating Revenues (x)	3.1x	2.9x	2.6x	2.6x	2.6x

Sources: Knoxville (City of) TN Water Enterprise, Moody's Ratings

## Profile

The Knoxville Utilities Board (KUB) provides electric transmission and distribution, fiber broadband services, gas distribution, water treatment and distribution, and sewer collection and treatment to a population of 487,401 (2023 American Community Survey) located in the City of Knoxville (Aa1 stable) and County of Knox (Aa1 stable).

## Detailed credit considerations

### Service Area and Characteristics: Regionally significant service area in East Tennessee

KUB's water system customer base will continue to grow at a modest pace given the mature nature of the service area. KUB distributes water to approximately 84,262 customers in the City of Knoxville, Knox County, and portions of the adjacent counties.

The Knoxville-Knox County area is the regional business, educational and health care service center for eastern Tennessee (Aaa stable). Large, institutional employers, such as the University of Tennessee and the Tennessee Valley Authority (Aaa stable), anchor the local job base and provide stability. In addition, the local economic base also benefits from its proximity to Oak Ridge National Laboratories.

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Given these favorable economic characteristics, the county's unemployment rate (3.1% in August 2025) has consistently been below state (3.6%) and national (4.5%) levels.

KUB receives its entire supply of water from an intake off the Tennessee River, and while TVA controls the minimum flow of the river system, officials report that supply is well in excess of demand even during drought periods when flows have been curtailed. Water is treated at one treatment plant with a rated capacity of 62.9 million gallons per day (MGD), and the water system includes 26 pump stations, 28 storage facilities and 1,410 miles of pipes. The system has 37.3 MG storage capacity in the form of clear wells (9.1 MG), above-ground (10.2 MG) and below-ground (18 MG) facilities, whose combined capacity exceeds average daily demand levels for the last five years. Treatment plant capacity continues to be comfortable in relation to average daily demand.

Water system rates remain low relative to peers, which provides the water system with flexibility to raise rates to counter demand declines. The most recent adopted and instituted water system rate increases were 5% in fiscal 2024 and 2025. Annual 6% rate increases for fiscal 2026 through 2028 have been approved by the Board.

The top 10 users accounted for 20.28% of water revenues as of fiscal 2025; but the primary user of water, the City of Knoxville, at 7.1% of water revenues, is highly stable. The system will be able to offset near-term demand weakness on both the revenue and cost side of its operations, with revenue growth expected from rate increases to fixed components in rates (which reduces exposure to consumption declines) and as O&M costs are quite variable with supply (practically unlimited flow from the Tennessee River) requiring limited to no cost recovery, and treatment and transmission/distribution costs that should decline with lower end use. The rate increases and lower demand vulnerability are reflected in a system operating ratio that has declined annually from fiscal 2009 (71.5%) to fiscal 2025 (46.6%).

### **Debt Service Coverage and Liquidity: Stable financial position continues in fiscal 2025**

KUB's well-managed water system will continue its trend of strong operating results and solid debt service coverage ratios, particularly as management has demonstrated a willingness to raise rates when needed and has unlimited authority to do so. Since fiscal 2010, the system has maintained strong debt service coverage with 2.82 times in fiscal 2025.

KUB expects to have 6% annual rate increases from fiscal 2026 through fiscal 2028, in order to meet expected increases in debt service costs and maintain coverage ratios at target levels. KUB has full rate setting authority and previously approved rate increases of 6.5% from fiscal 2018 through 2020 and 5% increases for fiscal 2024 through fiscal 2025.

MADS coverage for fiscal 2025 was 2.41 times and is projected to range between 2.27 times to 2.66 times over the next five years, consistent with the internal target of 2.0 times.

#### **Liquidity**

The system's liquidity will remain sound given prudent management and ongoing rate increases. The system ended fiscal 2025 with a solid liquidity position, reflected in unrestricted reserves that represented 106.7% of annual operating expenses. Net working capital as a percentage of annual operating expenses was 105.4%. Days cash on hand in fiscal 2025 was strong at approximately 390 days.

### **Debt and Legal Covenants: Legal provisions provide adequate protections for bondholders**

The system's fiscal 2025 debt ratio was an above-average 42%, just below the system's target of 50% or less. Debt to operating revenues is a moderate 2.62 times. The system maintains a ten-year Capital Improvement Plan (CIP), which shows an additional \$56 million in near term debt (through fiscal 2030). The majority of the CIP will support the system's Century II initiative, under which KUB expects to replace all galvanized and cast iron water mains (at a combined rate of 10 miles per year) which have been the primary sources of water loss (estimated at around 31%) for the system. As a result, water loss is likely to improve by fiscal 2027 when KUB intends to have all galvanized mains replaced, but the cast iron replacement will continue beyond that date.

The legal provisions under the current resolution are expected to ensure adequate protections for bondholders. While the resolution includes a 1.20x rate covenant and does not require a debt service reserve fund, we believe that the system's current debt service coverage adequately mitigates these features. All outstanding debt is secured by the net revenues on a parity basis and additional parity bonds may be issued if net revenues during twelve of the preceding twenty-four months are equal to 120% of aggregate maximum annual debt service (MADS), including the new parity bonds, or if the estimated net revenues for the next three years after any improvements have been built or bonds have been issued are 120% of aggregate MADS.

**Legal security**

All of the enterprise's debt is backed by a net revenue pledge of the water system.

**Debt structure**

The enterprise's debt profile is made up of 100% fixed rate securities.

**Debt-related derivatives**

The enterprise is not currently party to any derivative agreements.

**Pensions and OPEB**

Employees participate in the Knoxville Utilities Board Pension Plan which is a single employer defined benefit plan administered through an Administrative Committee consisting of seven KUB employees that are appointed by KUB's President and CEO. As of December 31, 2024, the plan had 359 active members, 589 retirees and beneficiaries and 10 terminated vested participants. Based on the January 1, 2023 actuarial report, KUB contributed \$2.2 million for fiscal 2025 which constitutes 100% of the actuarial required contribution.

## ESG considerations

**Environmental**

Environmental risks do not pose a credit risk over the medium term for the city. According to data from Moody's ESG Solutions, the City of Knoxville's highest exposures are to heat stress and extreme rainfall which could result in severe flooding. These risks are however minimized by KUB's historically stable financial position and prudent system management which provides added flexibility to respond to contingencies and resilience against potential short-term shocks.

**Social**

KUB benefits from Knoxville and Knox County's healthy tax base and position as a regional economic driver. Social considerations are not material to the credit profile except as described above in the service area section.

**Governance**

The Knoxville Utilities Board has a long-standing history of well-managed operations, sound fiscal planning, and a well-developed asset management plan that spans a period of 10 years. KUB is governed by a seven-member board of commissioners appointed by the governing body of the City of Knoxville for staggered seven-year terms. The Board operates the city's electric, fiber, gas, water, and sewer utilities, which are managed by the system's administrative staff. The Board has full rate setting authority over retail rates, and has demonstrated strong willingness to raise rates in pace with growing O&M and capital needs.

## Rating methodology and scorecard factors

The US Municipal Utility Revenue Debt methodology includes a scorecard that summarizes the factors that are generally most important to utilities' credit profiles. Because the scorecard is a summary and may not include every consideration in the credit analysis for a specific issuer, a scorecard-indicated outcome may or may not match an assigned rating.

Exhibit 2

### Knoxville (City of) TN Water Enterprise Scorecard

#### Knoxville (City of) TN Water Enterprise (808822496)

Rating Factors	Input	Weight	Score
<b>System Characteristics (30%)</b>			
Asset Condition (Years of Annual Depreciation)			
	34	10%	Aa
System Size (O&M in Thousands of Dollars)	\$36,084	7.5%	Aa
Service Area Wealth (Median Family Income as % of US)	74%	12.5%	Baa
<b>Financial Strength (40%)</b>			
Annual Debt Service Coverage (x)	2.82	15%	Aaa
Days Cash on Hand	390	15%	Aaa
Debt to Operating Revenue (x)	2.62	10%	Aa
<b>Management (20%)</b>			
Rate Management	Aaa	10%	Aaa
Regulatory Compliance and Capital Planning	Aa	10%	Aa
<b>Legal Provisions (10%)</b>			
Rate Covenant (x)	1.2	5%	A
Debt Service Reserve Requirement	Baa and Below	5%	Baa
<b>Notching Factors</b>			
Additional service area economic strength or diversity			Up
Unusually strong or weak capital planning			Up
Scorecard-Indicated Outcome			Aa1
Assigned Rating			Aa1

Data is based on most recent fiscal year available. Debt may include pro forma data for new debt issued or proposed to be issued after the close of the fiscal year.

Sources: Knoxville (City of) TN Water Enterprise, Moody's Ratings

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