Comptroller of the Treasury

Quarterly Fiscal Affairs Report

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State law directs the Comptroller to report on the state's fiscal affairs periodically. In this report, we provide a look at Tennessee's utilities.

"Water, water everywhere, nor any drop to drink." Over 70 percent of the Earth's surface is covered with water – but, as anyone who swims in the oceans knows, the vast majority is not drinkable.

Luckily, thanks to utilities, Tennesseans have plenty of clean water to drink. Every day, utilities pump more than half a billion gallons of water to homes and businesses across the state. To ensure that this water keeps flowing and stays affordable, the Comptroller's Office helps utilities manage their money and steps in when they run into financial trouble.

What is a utility?

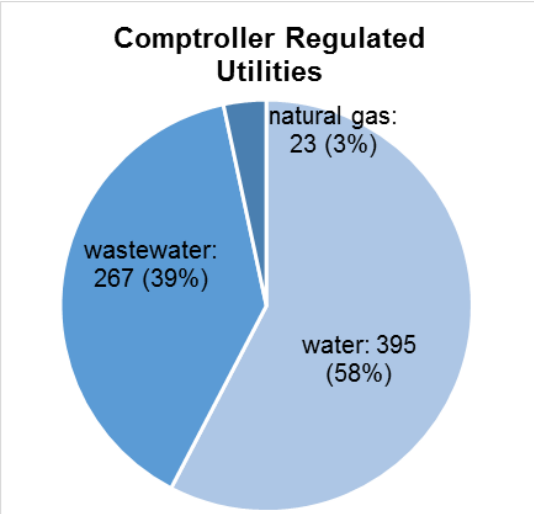
Broadly speaking, a utility is any entity that provides water, wastewater or sewer services, natural gas, electricity, or phone services. While electricity and telephone are a large part of the utility world, they have a vastly different regulatory scheme. This report will focus on water and wastewater due to the Comptroller's substantial involvement.

Tennessee has four classes of governmental utilities: utility districts, and utility services provided by cities, counties, and authorities. Although all of these types provide the same services, the four main classes are overseen by two different boards.

Utility Districts

Utility districts are entities that are legally separate from other governments, such as cities or counties. Utility districts are "user based" and "revenue driven," meaning that they cannot levy taxes. Instead, all revenue comes from customers paying for services.

Unlike cities and counties, which have broad authority to provide all necessary services for citizens, utility districts can only provide a few specific services outlined in law. These include water, sewer and wastewater services, natural gas, garbage collection, police and firefighter services, street lighting, and parks and recreational services.



Tennessee utility districts are made up of:

- 138 water only providers
- 19 natural gas only providers
- 18 water and wastewater providers
- three wastewater and natural gas providers
- one wastewater only provider
- one water, wastewater, and natural gas provider; and
- one fire protection services provider.

Why does a utility district operate a fire department? It depends on a concept known as **service area**. In the past, many rural areas were too far from a city to receive services from a fire department or garbage collectors. So, with no city to provide these things, rural citizens created a utility district to cover the area.

Cities, Counties, and Authorities

Most cities and counties provide water, wastewater, and natural gas services to residents. Financially, city and county utilities must be "self-sufficient," meaning that they cannot operate with tax revenue; instead, they must support themselves with customer paid rates and fees.

As with utility districts, the concept of **service area** also applies to cities and counties. For example, while a county utility may cover the entire county, cities typically do not extend outside their corporate boundaries. Although cities may provide services past the city limits with approval from the county mayor, another way to reach more people is by forming an authority.

Authorities are similar to utility districts in that they are separate entities from the city or county government. Often, authorities are created in the spirit of collaboration – smaller city utilities may band together, for instance, to consolidate operations and serve more people.

Currently, 251 cities, nine counties, and nine authorities provide utility services.

251 cities	Nine counties	Nine authorities
• 22 water	• two water and wastewater	• five water and wastewater
• 38 wastewater	• one wastewater only	• one water only
• 191 water and wastewater	• six water only	• three wastewater only

Why utilities matter

It's easy to see why utilities are important – just imagine 700,000 Nashville residents hauling buckets of water from the Cumberland River and boiling the water in their houses. But we may not think about how much utilities affect our daily lives. In 2015, utilities pumped *250 trillion* gallons of water to over 2 million connections – houses or buildings – across the state. For comparison, Sevierville, one of the rainiest cities in Tennessee, gets about 45 inches of rain a year – this means Sevierville would have to collect every drop of rainwater for over 14 years to provide as much water as utilities distributed in just one year.

But while utilities are undoubtedly essential parts of life, a rocky future lies ahead. Utilities are increasingly facing enormous infrastructure costs needed to replace pipes, meters, and storage tanks, and to upgrade utility plants. In fact, in 2015, the Tennessee Advisory Commission on Intergovernmental Relations (TACIR) estimated that Tennessee has $3.4 billion in water and wastewater infrastructure needs, mostly at the local level. And Tennessee is not the only state in this predicament – the American Society of Civil Engineers estimated that the United States currently needs $1.3 trillion to fully replace its aging utility systems.

The Impending Pipe Crisis

While the ancient Romans perfected the use of aqueducts and canals to provide water to citizens, modern utilities use thousands of miles of underground pipes. But consider this:

- In the early 1900s, utilities laid "100-year pipe," meaning the pipes would last for roughly 100 years.
- In the mid-1900s, most utilities began putting in 50-year pipe.
- In the late 1900s, many utilities switched to using 30-year pipe.

What does this mean? It means that the vast majority of pipes in Tennessee – regardless of when they were put in the ground – will reach the end of their usable lifespan in the next decade or so. In other words, **Tennessee will need to replace nearly all of its pipes across the state in the near future.**

America's Utility Report Card

U.S, Wastewater grade: D
U.S. Drinking water grade: D

TN Wastewater grade: D+
TN Drinking water grade: C

Estimated cost to fully replace aging systems nationwide: $1.3 trillion, according to American Society of Civil Engineers

Estimated cost of required repairs for the next 20 years: $655+ billion, according to the Environmental Protection Agency

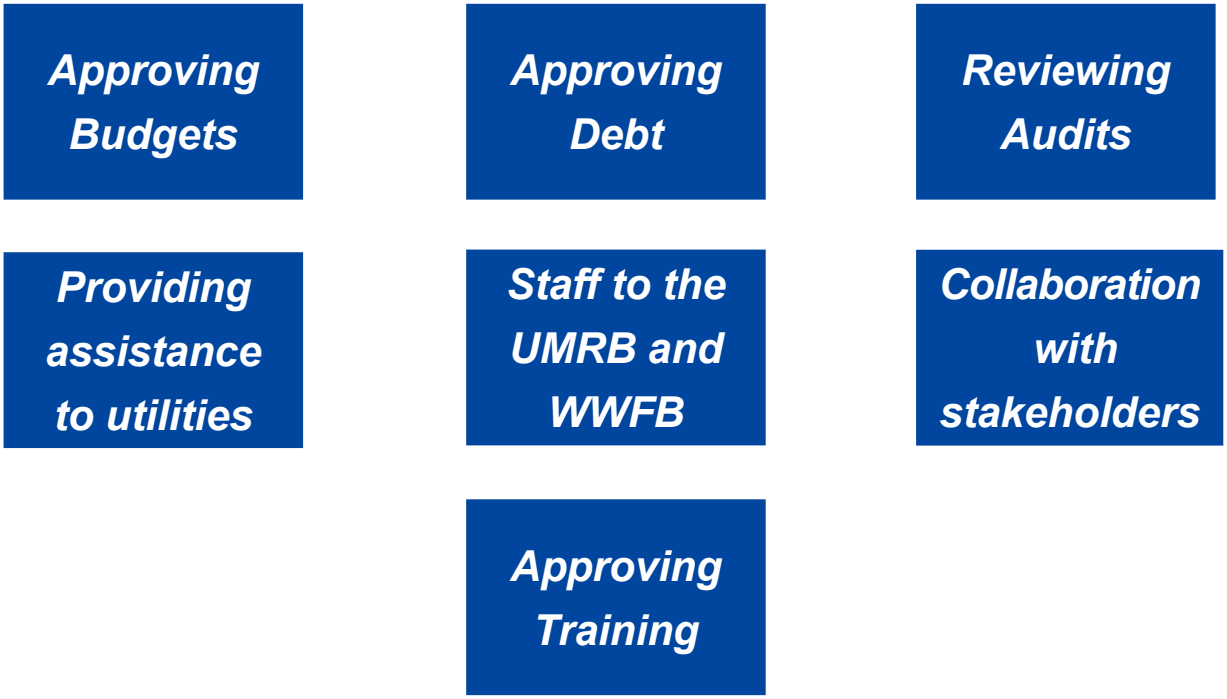
Estimated cost of water and wastewater infrastructure needs in Tennessee: $3.4 billion, mostly in local funds, according to the Tennessee Advisory Commission on Intergovernmental Relations (TACIR)

* Utility grades by the American Society of Civil Engineers

Utilities and the Comptroller's Office

So what does the Comptroller, the state's "money cop," have to do with utilities? While the Comptroller's Office does not monitor utilities' physical operations – pipe maintenance, water quality, etc. – the office does watch their fiscal operations. Financially healthy utilities are much more likely to be physically healthy utilities; after all, pipe repairs and infrastructure improvements cannot be made without the funds that come from good money management.

The office helps keep utilities financially sound by approving their budgets and debt, and steps in when utilities run into financial trouble. The Comptroller's Office supports utilities in a variety of ways:



- Approving budgets. The Comptroller's Office of State and Local Finance supports the financial accountability and sustainability of Tennessee's local governments. In fiscal year 2015-2016, the office approved budgets for 126 utility districts, 95 counties, and 296 cities. In addition to approving budgets, the Office of State and Local Finance also reviews or approves certain debt issues, including plans to issue balloon indebtedness.
- Approving debt. The Comptroller's Office works with the Tennessee Local Development Agency (TLDA), which provides loans to local governments, small businesses, and non-profits for certain purposes. In fiscal year 2015-16, TLDA disbursed over $123 million in loans to local governments and utility districts through the Clean Water State Revolving Fund and the Drinking Water State Revolving Fund. The Comptroller's Office assists TLDA in determining whether a utility will be able to pay back its loan at its current water rates.
- Reviewing audits. In 2015, audits of utility districts revealed 174 findings, the majority of which involved weaknesses in internal controls. The Comptroller's Office reviews these audits, and may refer utilities with findings to either the Utility Management Review Board or the Water & Wastewater Financing Board.

- Supporting the Utility Management Review Board and Water & Wastewater Financing Board. The Comptroller's Office serves as staff to both the UMRB and WWFB, the two boards that regulate utilities. The office assists with financial planning, including developing long term plans and analyzing available funding and resources. Comptroller staff also advise on issues involving water loss, rate structures, and best practices.
- Collaborating with all entities involved with local utilities. The Comptroller's Office serves as a liaison with elected and appointed officials, the Tennessee Department of Environment and Conservation, and other regulatory agencies to assist Tennessee's public utility systems.
- Approving trainings for utility district commissioners. By law, utility district commissioners must meet training and continuing education requirements to remain eligible for another term of office. The Comptroller's Office approves all trainings.

Improving Management with Training

Well-run utilities are the difference between a first world and a third world country, and utility district commissioners have an important responsibility to maintain their utility district's fiduciary responsibility. The Comptroller's Office approves all trainings required by law for utility district commissioners. Commissioners must receive training on the following subjects:

- Board governance
- Financial oversight
- Policy making responsibilities
- Other topics related to commissioner's duties

A utility district commissioner who fails to meet the training and continuing education requirements before the end of the commissioner's term of office shall not be eligible for reappointment or reelection to another term of office. Currently, there are no requirements for municipal, county, or authority board members that oversee utilities to receive training.

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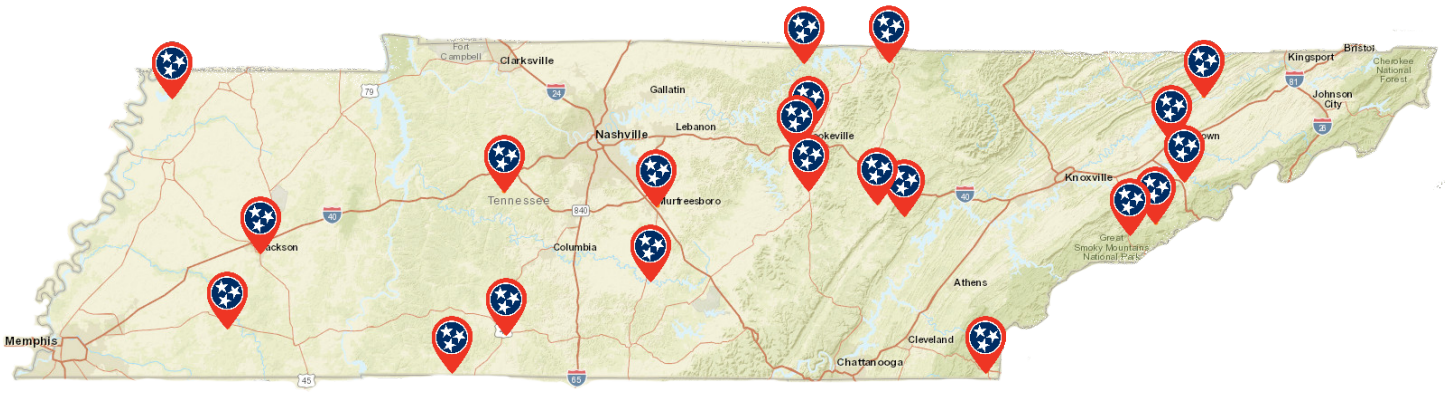
The map below shows the different trainings that the Comptroller's Office provided during 2015-2016.



Assisting utilities to fix financial problems

While the Comptroller's Office works to keep all utilities financially sound, sometimes things go wrong, and the office must take further action. The Comptroller serves as the chair of the two boards that regulate governmental water, wastewater, and natural gas utilities: the UMRB and the WWFB. The boards are administratively attached to the Comptroller's Office, and additional Comptroller employees serve as staff. The UMRB and the WWFB ensure that utilities are self-supporting and operate within their means. Utilities with financial problems may be placed under the control of the boards until the issues are resolved. Utilities are referred to the boards due to:

- Financial distress. A financially distressed utility district may have liabilities greater than assets, two years of operating losses, or default on its debt.
- Water loss. A utility district may suffer "real" water loss, when the utility loses actual water due to leakages. Losses may also be "apparent," and result from clerical errors made by staff or incorrect readings from malfunctioning water meters. A law passed in 2007 requires that utilities losing an "excessive" amount of water be referred to the UMRB or WWFB for corrective action.

2015 water losses:
- ***$68 million***
- ***51 billion gallons (80% of the water in Percy Priest Lake)***

While the two boards have very similar duties, the main difference is jurisdiction: the UMRB regulates utility districts, and the WWFB oversees cities, counties, and authorities. Additionally, the UMRB has greater quasi-judicial powers than the WWFB, and addresses customer complaints, authorizes the creation of new utility districts, and has the power to remove utility district commissioners.

The Tennessee Local Development Authority approves loans for water and wastewater facilities.

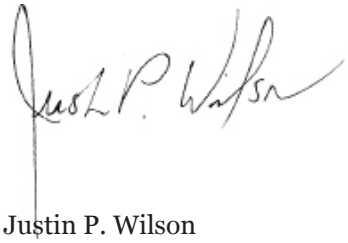
Utility Management Review Board (UMRB)	Water & Wastewater Financing Board (WWFB)
Jurisdiction	
• utility districts	• cities; • counties; and • authorities
Duties	
• oversee utilities for financial distress or water loss • resolve customer complaints; • authorize creation of new utility districts; and • remove utility district commissioners.	• oversee utilities for financial distress or water loss
Currently Under Oversight	
24 utility districts: • 19 for financial distress; • three for water loss; and • two under investigation.	42 entities - 39 cities, two counties, and one authority: • 27 for financial distress; and • 15 for water loss
Membership	
• utility district commissioners (3) • utility district managers (3) • consumer representative (1) • Commissioner of TDEC • Comptroller of the Treasury (Chair)	• member representing municipalities • member representing utility districts • member representing environmental interests • member representing manufacturing interests • member representing minority citizens with experience in government finance • employee of a municipal water utility • employee of a water utility district • Commissioner of TDEC • Comptroller of the Treasury (Chair)

Conclusion

Although people may not stop to think about where their water comes from every time they turn on a faucet, utilities are an essential part of everyday life. By helping utilities stay financially healthy and stepping in when they run into trouble, the Comptroller's Office helps ensure that all Tennesseans have clean and affordable water to drink. The public is served best when it's provided water services by self-sustaining utilities that are adequately financed with rates and fees based on sound accounting, engineering, financial, and economic principles.

To be self-sustaining, renewal and replacement costs for treatment, storage, distribution, and collection systems must be considered. Some utilities have kept their rates low by ignoring these costs, but they become obvious as the useful lives of systems come to an end. Current managers and communities are forced to address these costs through painful rate increases.

Utility districts have a challenge to balance ratepayers' desires for low rates with an amount necessary to fund current and future needs. Prudent financial management is essential to a well-run public utility. Nothing less than clean, accessible and affordable water is at stake. Providing for today and planning for tomorrow allows Tennessee to maintain its position as a leader in economic development and quality of life.



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