

Funding Sources

Dear Reader:

The following document was created from the MTAS website ([mtas.tennessee.edu](https://www.mtas.tennessee.edu)). This website is maintained daily by MTAS staff and seeks to represent the most current information regarding issues relative to Tennessee municipal government.

We hope this information will be useful to you; reference to it will assist you with many of the questions that will arise in your tenure with municipal government. However, the *Tennessee Code Annotated* and other relevant laws or regulations should always be consulted before any action is taken based upon the contents of this document.

Please feel free to contact us if you have questions or comments regarding this information or any other MTAS website material.

Sincerely,

The University of Tennessee
Municipal Technical Advisory Service
1610 University Avenue
Knoxville, TN 37921-6741
865-974-0411 phone
865-974-0423 fax
www.mtas.tennessee.edu

Table of Contents

Funding Sources.....	3
User Charges.....	3
Rates.....	4
Meters.....	5
Unmetered Services	5
Tap Fees.....	6
Service Fees	6
Types of Fees	6

Funding Sources

Reference Number: MTAS-836

A water and sewer utility operation has several options for generating revenues through its normal service provisions. These consist of user charges, tap fees, service fees, penalties or late charges, and surcharges.

User Charges

Reference Number: MTAS-1380

Generally, most of the revenues of a water and sewer utility are in the form of user charges. These charges are measured and accounted for by water meters. Water usage is calculated on a monthly basis (normally) and this usage is applied to the city's water rates.

Cities will use an ascending or increasing-block rate schedule when there is a need to encourage water conservation as a result of increased demand on a dwindling water supply.

In many cities sewer charges are based on water usage amounts determined from meter readings. If the city provides only sewer service it will obtain the usage amounts from the utility districts or whoever is providing water service. In the past, sewer charges were typically structured similar to water rates, although in some cities the sewer rate was expressed as a percentage of the water bill. Today, for many utilities sewer charges are now higher than water charges as the costs of meeting all the requirements of operating a sewer system have increased dramatically. In addition, sewer rate structures typically may use increasing block rates.

EXAMPLE OF A WATER RATE STRUCTURE WITH A VOLUME INCLUDED IN THE MONTHLY MINIMUM
First 2,000 gallons (minimum bill) — \$8.00
Excess over 2,000 gallons \$2.75 per thousand gallons

EXAMPLE OF A UNIFORM RATE STRUCTURE WITH NO VOLUME ON THE MINIMUM BILL

Minimum bill — \$8.00

Every 1,000 gallons
\$2.20 per thousand gallons

EXAMPLE OF A WATER DECLINING RATE STRUCTURE

First 1,000 gallons (minimum bill) — \$7.50

Over 1,000 to 5,000 gallons
\$2.50 per thousand gallons

Over 5,000 to 10,000 gallons
\$2.00 per thousand gallons

Over 10,000 to 100,000 gallons
\$1.50 per thousand gallons

Over 100,000 gallons
\$1.00 per thousand gallons

EXAMPLE OF AN ASCENDING RATE STRUCTURE

First 1,000 gallons (minimum bill) — \$7.50

Over 1,000 to 5,000 gallons
\$1.75 per thousand gallons

Over 5,000 to 10,000 gallons
\$2.00 per thousand gallons

Over 10,000 to 100,000 gallons
\$2.25 per thousand gallons

Over 100,000 gallons
\$2.50 per thousand gallons

Rates

Reference Number: MTAS-837

Several factors should be considered when determining the rate schedule for water and sewer services:

- Operating and maintenance costs;
- Depreciation;

- Debt principal and interest; and
- Capital requirements (this would include new lines, equipment, etc.).

Rates should be put in place sufficient to generate revenues to fund these items and to build a cash reserve to handle emergencies and other fund needs.

One of the most important points to consider is the necessity of planning and monitoring water and sewer fund needs. Cities often wait until they are in financial distress before increasing rates. Then large rate increases are necessary. These increases upset customers and hurt the public perception of the utility operation. A planned program of much smaller, gradual rate increases will help provide the needed income and prevent the city from getting into financial distress.

MTAS consultants can assist you with rate issues or perform a rate study for your city to help you determine exactly what your water/sewer rates need to be.

Meters

Reference Number: MTAS-838

The main source of information for revenue is water meter readings. Care should be taken to make sure meters are properly read and maintained. Any discrepancies or questions about readings should be noted and handled before billings are sent to customers. Occasionally, a meter reading may have to be estimated due to inaccessibility of the meter location. The account should be noted as estimated for future reference and, if at all possible, should be read at the next billing period.

Automated Meter Reading — One of the more recent changes in meter reading is the availability of automated meter reading (AMR). AMR is being done in several forms. Devices may be installed on the meter, which allow the meter reader to use a touch wand to obtain the reading. Apartment buildings and condominiums that are metered separately may be networked so that touching only one meter reads an entire group. There also are radio read devices that let the meter reader simply drive past the location. A special device on the meter sends a signal that is picked up by the equipment in the meter reading truck. The most advanced systems can have all the meters read from a central location through either radio or cell phone transmission.

Meter Maintenance — It is important that water meters record usage as accurately as possible. Water meter readings result directly in water and sewer revenues for your city. As meters age they become more inaccurate and usually fail to record all of the water passing through them. Therefore, a regular program for changing out older water meters should be put into place. Replacing older meters on schedule will help the city maintain the revenue level it needs. Recommended schedules include changing out the meters every eight to 12 years or when a meter has recorded 1 million gallons of usage. The information from the meter manufacturer will provide guidance on expected lifetime of a meter. Large industrial or commercial meters should be tested periodically to certify their accuracy. Many times, these larger revenue sources will account for the greater percentage of the city's revenues. It is always better to test these meters at the location under the same conditions as normal service. Also, remember that sewer billings are computed based on water usage. If the water reading is less than accurate it will also affect sewer revenue.

Other Metering Concerns — It is usually recommended that each separate service location have its own water meter and sewer service. Sometimes multi-family dwellings will service all users through one master meter. The city needs to have policies in place that address minimum billing and other rates in master metering or the system will not realize as much revenue from these master meters as they normally would from individual metering. However, additional revenues in these situations may be offset by increased maintenance costs of the lines and meters necessary to serve each customer. Cities need to establish uniform policies for handling customer metering concerns for multi-family dwellings, and commercial and industrial customers. This will allow your employees to answer customer questions and ensure that the city is treating all customers fairly.

Unmetered Services

Reference Number:

MTAS-1593

Some customers have water services that are unmetered. These would include private fire hydrants, fire suppressant systems and sprinklers. Some utilities have flat charges that are billed each month so that the service is available if needed. Usually these charges are based on the number of hydrants, size of suppressant system or sprinkler heads in service. Municipal fire hydrant maintenance may be charged to the city's general fund. One very important thing to remember is that utilities should derive 90 to 95 percent of their revenues through user charges.

Tap Fees

Reference Number: MTAS-1436

Whenever customers request a new service tap for either water or sewer, a tap fee should be required. Sometimes cities charge artificially low tap fees as a means of encouraging new growth. When the tap fee doesn't even cover installation costs the difference must be made up through user charges to all ratepayers.

In establishing tap fees cities should consider that the new customer is connecting to an existing plant system for which they have shared no costs. To this extent tap fees may include more than just the cost to the utility of the physical installation. Several methods of calculating tap fees may be used. Primarily, they will use asset or plant in-service costs being shared by all customers. This cost should be updated from time to time to reflect customer/cost changes. It is not unusual for cities to charge \$1,000 to \$2,000 for tap fees. Although this may seem high, it is relatively low compared to the cost of digging a well or installing a septic tank. City auditors or MTAS finance and accounting personnel can assist in calculating the tap fee.

Tap fees will be recorded as revenues for the system. Tap fees provide an important resource for water and sewer utilities to recover installation costs from customers.

Service Fees

Reference Number: MTAS-1594

Water and sewer utilities should charge customer service fees for various parts of their operation. One reason is that customers using the utilities' labor, equipment, and materials should bear the largest burden of the cost. This helps keep rates lower for all users and provides important revenues to the utilities.

Types of Fees

Reference Number: MTAS-839

Customer Service Fees

Whenever a customer requests that a water meter be put into service a utility employee usually must go to the service location to obtain a meter reading and turn on the meter. A flat fee to recover the employee's labor and vehicle cost is charged. These fees are non-refundable.

Collection/Reconnection Fee

When a customer service visit is necessary to reconnect a service that was terminated for nonpayment, the utility may charge the customer a service fee. These fees are non-refundable.

Damage Costs

Occasionally a customer will damage a water meter or meter connections by turning the service on or off without using the proper tools. A utility will want the customer to reimburse the costs of the meter, connections, etc. that were damaged. Actual labor costs or a customer service fee may also be charged.

Fees for Calls Outside of Normal Working Hours

The utility may choose to charge for customer-initiated service calls outside of normal working hours.

This charge may be actual costs incurred or a flat fee that has already been established for these types of calls. Either way the goal is to recover some, or all, of the costs involved.

Returned Check Service Fees

A city may choose to charge a service fee for handling returned checks. This is easily justified because some costs are incurred by the water and sewer utility to collect these monies. Sometimes having a published charge discourages customers from giving the utility bad checks. Cities should consult their auditors or attorneys when establishing these fees as there are maximum charges allowable under state law. It is important for utilities to view service fees as a way to recover the costs of providing specific services to their customers. Utilities should avoid inflated service fees that can harm customer relations. Also, it is important that the customer be aware of fees before the service is provided. At the time a customer applies for service he or she should be given a handout that lists appropriate policies or fees. These may also be published in local newspapers and newsletters or inserts that customers receive. This is especially important when changes are made to existing fee schedules.

DISCLAIMER: The letters and publications written by the MTAS consultants were written based upon the law at the time and/or a specific sets of facts. The laws referenced in the letters and publications may have changed and/or the technical advice provided may not be applicable to your city or circumstances. Always consult with your city attorney or an MTAS consultant before taking any action based on information contained in this website.

Source URL (retrieved on 09/22/2019 - 8:05am): <https://www.mtas.tennessee.edu/reference/funding-sources>

