



# THE BASICS OF



# Financial Management

FOR SMALL COMMUNITY UTILITIES



# Rural Community Assistance Partnership

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# INTRODUCTION

**A**s a water or wastewater utility leader, you play a vital role in the health, safety, prosperity, and sustainability of your community. One of your most important functions to promote all of these goals is to ensure the long-term financial health and sustainability of your utility—that is, you must manage your utility’s finances to ensure that the utility has enough money to cover its costs today and into the future.

Your utility’s ability to be successful over time depends on identifying your expenses accurately, generating appropriate revenues, monitoring financial performance regularly, and establishing appropriate financial policies. All of these steps ensure that your utility can pay for its day-to-day operations, replace capital assets proactively, and maintain financial reserves to cover unexpected expenses or revenue shortfalls.

This publication is intended for both new and experienced utility leaders. For new leaders, this guide introduces many of the key financial aspects of your new role. For those with some experience, this guide is a useful reference for continued growth in your role.

Chapter 1 defines financial management. Chapter 2 identifies revenues and expenses. Chapter 3 explains how to project those revenues and expenses into the future. Chapter 4 describes how to prepare your annual budget. Chapter 5 demonstrates how to monitor your utility’s financial performance throughout the year. Chapter 6 provides examples of utility financial policies. And Chapter 7 discusses sustaining your utility over time.

Throughout this guidebook, green boxes appear that identify tools and resources available to help you manage your water and/or wastewater utility’s finances more effectively.

## Engaging Technical Assistance Providers

Water and wastewater systems are complicated. As a result, you may wish to engage the services of a technical assistance provider who has experience working with similar utilities. Small systems may be able to receive free technical assistance from the Rural Community Assistance Partnership (RCAP), which produced this guide, and other organizations, and there are consultants for hire for most areas of utility operations, finance, and management.

The inside back cover of the guide provides information about RCAP’s national network of nonprofit organizations working to ensure that rural, small, and Tribal communities throughout the United States and its territories have access to safe drinking water and sanitary wastewater.

Technical assistance providers bring an array of ideas and experience from working with multiple water and wastewater systems across a geographic area. Technical assistance providers also often have more time and expertise to invest in analyses and evaluations than utility staff and boards may have on their own.

Funding agencies tend to look more favorably on applications from water and wastewater systems that have engaged with technical assistance providers. Your customers may also be more accepting of your actions as utility leaders when they are proposed by a neutral, third-party expert rather than from utility or community staff.

If you decide to engage the expertise of a technical assistance provider, it is important to find one who can best assist your community. Find out what services the technical assistance provider can offer to you. Ensure that the provider is familiar with the regulations in your state, territory, or Tribal nation. Ask for references from other systems that have worked with them previously that are similar to your utility in size, demographics, and ownership.

## LOCAL LEGAL EXPERTISE

As a utility, many of your financial responsibilities are defined in federal, state, territorial, Tribal and/or local laws and regulations. RCAP urges all utilities to work with attorneys, accountants, and other professionals who are familiar with these laws and regulations and who can ensure that the utility meets all of its legal requirements.



# CHAPTER ONE

## Overview of Financial Management

The term **Financial Management** simply means managing your utility's financial functions effectively. The financial functions of your utility include accounting, policies and procedures, record-keeping and reporting systems, planning and forecasting practices, budgeting procedures, and financial oversight responsibilities. The goal of good financial management is to ensure that your utility is operated as a financially sustainable enterprise.

When your utility is financially sustainable, you are selling water and/or wastewater disposal services to your customers at a fair rate that consistently generates enough revenue to meet all of your short- and long-term expenses.

At the very least, your utility should be financially self-supporting—but successful systems do more than just break even. They establish user rates sufficient to meet the system's future needs including funding reserves, such as emergency outages, equipment replacement and repair, and facility improvements.

### Financial Provisions of the Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) amendments passed by Congress in 1996 contained special provisions related to small water systems. Small water utilities were given special consideration and resources to make sure that they had the managerial, technical, and financial capacity to comply with drinking water standards.

State, territorial, and Tribal agencies that have primary enforcement responsibilities for implementation of the SDWA, called "primacy agencies," were also required to establish and implement capacity-development strategies to ensure that small water utilities developed and maintained the technical, managerial, and financial capacity to meet their responsibilities for providing safe drinking water over the long-term. Utilities are expected to be more financially stable and self-supporting.

One part of promoting financial sustainability is a greater emphasis on implementing concepts such as full-cost pricing and asset management in the operations of small utilities. Full-cost pricing means calculating and setting rates that reflect the true cost of producing and selling water and wastewater services, including all operating expenses, capital expenditures, debt service, and contributions to reserve funds. Asset management is a planning process that allows for a utility's management to prioritize and plan for the preservation and/or replacement of critical system components, or "assets."

### Financial Responsibilities of Utility Leadership

As a member of utility leadership, you have very important financial responsibilities, including:

- Establishing the framework governing the financial management system,
- Planning for the system's financial future,
- Preparation and adoption of annual budgets,
- Monitoring and oversight of financial performance, and
- Insuring accountability and integrity of the financial system.

You already know how central financial resources are to the operation of any business or enterprise that provides a product or service. Your enterprise can sink or swim based on its financial standing. You also know how essential drinking water and wastewater treatment is, not only to a city or a community, but to even a single household. So in addition to the responsibilities you were elected or hired to take on in overseeing the financial management of your utility, you probably understand that you have an obligation to ensure that your utility's finances are managed properly because they are the main resources that support the continual provision of essential water- and waste-related services where you live.

Carrying out these responsibilities and roles is not always easy. This guide is one resource to help you.

The first step in financial management is understanding the three major elements of utility finance: revenues, expenses, and reserve funds. They will be discussed in detail in the next chapter.

### IS YOUR WATER OR WASTEWATER SYSTEM RATE-REGULATED?

Many water and wastewater utilities, in particular units of government, Tribes, and nonprofits, have the authority to set their own rates, subject to board approval. Most states and territories have a public service commission or public utility commission that regulates utilities that provide essential services, including drinking water and wastewater. Some, although typically not all, water and wastewater systems in a state or territory fall under the regulation of these commissions. If your water or wastewater system falls under the regulation of a commission and does not have the authority to set its own rates, you should follow the commission's budgeting and ratemaking process, which may differ from the recommendations in this guidebook.

# CHAPTER TWO

## Identifying Expenses, Revenues, and Reserves

Utility finances include three general categories. The first is expenses—everything the utility spends money on. Expenses include money spent on day-to-day operations as well as on infrastructure. The second is revenue—the money the utility generates to cover those expenses. The third is reserves—the money the utility keeps in the bank. This chapter will explore utility expenses, revenues, and reserves in greater detail.

### Expenses

Utility expenses can be broken down into four categories. **The first category of expenses is operations and maintenance expenses, or O & M.** These are the day-to-day costs of running your water or wastewater utility. Operating expenses include:

Salaries and fringe benefits (health care, retirement, etc.) for anyone within your organization who works for/with the water/wastewater system, in proportion to the level of effort they work with the system;

- Supplies and chemicals needed for treatment and operations;
- Electricity and other utilities paid by the utility;
- Insurance costs for the system;
- Contracted labor for operations;
- Regular repairs and system maintenance, including spare parts;
- Taxes, or payment in lieu of taxes, if applicable;
- Fuel and oil costs for vehicles and heavy machinery;
- Telephone and mobile phone costs;
- Write-offs of unpaid bills (“bad debt expense”);
- Contracted legal and accounting services;
- Postage for mailing bills to customers and other correspondence;
- Office expenses;
- Conference fees, training course fees, and other continuing education expenses;
- Uniforms and other employee equipment;
- Water/effluent testing and analysis laboratory fees;
- Vehicle maintenance and upkeep;
- Vehicle insurance and fuel charges;
- Bank charges;
- Miscellaneous expenses; and
- Any other cost incurred in the operation of your water/wastewater system.

It is important that you identify ALL of the expenses related to the water/wastewater utility, not just those related to day-to-day operations. **The other three types of expenses are categorized generally as non-operating expenses. These include capital outlays, principal and interest payments on long-term debt, and contributions to reserves.**

Capital outlays are the expenses related to the refurbishment and replacement of existing infrastructure and the installation of new infrastructure. This includes capital assets such as wells and other sources, treatment plants, storage tanks, pumps, pipes, hydrants, meters, heavy equipment, and vehicles.

Often, utilities pay for capital assets with debt. Debt service is the fancy term for the principal and interest payments you make on loans and bonds. When you borrow money, you sign an agreement with the lender called a covenant. That is true if you borrow money from governmental lending programs such as the U.S. Department of Agriculture (USDA) Water and Waste Disposal program and the state revolving loan fund, if you borrow money from a bank, or if you issue bonds. The agreement will set a repayment schedule for you with the amounts that you owe and the dates payments must be made.

The fourth and final category of expenses is contributions to your reserve accounts. Having healthy reserve accounts is a vital component of a financially sustainable utility. You should have a plan for how much money you wish to have in reserves every year and build that number into your expenses. Some funders, such as USDA, require their borrowers to create and maintain adequate reserves. Contributions to reserves should not just be what is left over at the end of the year. Reserves will be explored in greater depth later in this chapter.

### Revenues

Utilities are typically run as enterprise funds. That means that they are self-sustaining and generate their own revenue to cover their annual expenses.

For most utilities, the majority of their revenue comes from customer payments for water or wastewater service based on the rates that the utility charges. Rates are made up of two basic elements:

- The base rate, which is a set amount of money you charge to customers each billing period just for being customers of the utility; and

- The flow rate, which is the amount of money per gallon you charge to customers based on their usage. The more water they use or wastewater they generate, the more they pay.
- In addition to rates, utilities have four other main sources of revenue:
- Connection fees that new customers pay when they join the utility;
- Penalties that customers pay for late payments, shutoffs, reconnections, meter tampering, and other infractions of utility policy;
- Rental revenue from cell phone or radio receivers on water towers and other infrastructure; and
- The proceeds of loans or grants.

A financially healthy utility generates enough revenue to cover all of its O & M costs, capital outlays, debt service payments, and planned contributions to reserves each year.

## RATE SETTING EXPLAINED

*Formulate Great Rates* is RCAP's guidebook to conducting a rate study for a small water or wastewater system. The guide helps utilities calculate how much revenue they need each year, determine whether current rates are sufficient to meet those needs, and adjust rates as necessary to generate additional revenue. The free guide and companion spreadsheet tool are available in English for download at [rcap.org/resource/formulate-great-rates-guidebook](http://rcap.org/resource/formulate-great-rates-guidebook).

## Reserve Accounts

The purpose of reserve accounts is to hold funds that are dedicated for specific uses. Your reserve accounts are built up over time with revenues from the operation of the facility. Four specific reserve accounts are recommended for water and wastewater utilities (see also Financial Reserves in the Sample Financial Management Policies section of Chapter 6):

# RESERVE ACCOUNTS

## DEBT-SERVICE RESERVE

A debt-service reserve is usually required by a lender or bond-covenant agreements. The debt-service reserve is for making regular debt-service payments should other funds for making debt-service payments not be available. USDA Rural Utilities Service, for example, requires a debt-service reserve of 10% of the annual principal and interest payment, accumulated over a 10-year period.

## EMERGENCY RESERVE

An emergency reserve fund is for unforeseen and unplanned emergency repairs that may occur during the year, such as major line breaks, pump breakdowns, etc. The recommended funding level for emergency reserves will vary from system to system. Review the average annual amounts spent on emergency repairs over the past five years to get an estimate for what your emergency reserve levels should be.

## PLANNED EQUIPMENT REPAIR/ REPLACEMENT RESERVE

This reserve fund is for the planned repair, rehabilitation, or replacement of equipment. In particular, this reserve is meant for the replacement of those items that have a useful life that is significantly shorter than the system as a whole. This reserve may also be called a short-lived assets reserve.

## (MAJOR) CAPITAL IMPROVEMENTS RESERVE

A capital improvements reserve is the accumulation of funds that will be devoted to pay for part of the cost of large, future capital improvement projects that might be needed for the upgrade of existing facilities or construction of new facilities. Most of the cost for major capital improvement projects will be paid with outside sources of financing (for small water or wastewater systems—those with a small customer base and lower annual revenues—it might not be possible to fund a major capital improvements reserve at all without increasing rates above an affordable level).

Now that you have identified your revenues, expenses, and reserves, the next chapter will discuss how you can make educated guesses about how much each will be in the future.

# CHAPTER THREE

## Projecting Revenues and Expenses into the Future

One of the most important responsibilities as a leader of your utility is planning for the financial future of your system. How much money will you need to protect public health, deliver high-quality water or reliable wastewater treatment on demand, and operate your system effectively in the future? To accomplish this, you will need to calculate your utility's future financial needs, both for operations and for capital, and then determine how those future financial needs will be met. These projections will turn into your annual budget, which we will discuss in detail in Chapter 4.

You'll never know the future for sure, but you do have something that can help you see things more clearly: data. By gathering and analyzing data on past operating expenses, numbers of customers, usage, and priority capital projects, you can make a more accurate prediction of future financial needs.

### Projecting Operating Expenses

The best way to project future operating expenses is to look at past operating expenses and to make appropriate adjustments. It is recommended that you examine your operating expenses for at least the last three years, if not longer. You should collect detail on how much your utility spent for *individual expenses*—it's not enough just to collect the total operating expenses. The best sources for this information are your budget actuals from the past several years or your annual financial statements.

Once you have gathered historical data on operating expenses, the first step is to determine how they have changed over time. Are they going up? Going down? Staying the same? Most likely, some expenses will be increasing steadily, others may be level or decreasing slightly, and still others will change dramatically from one year to the next.

When you project operating expenses into the future, you have two options. The simpler way to project expenses is to determine an overall, year-to-year rate of change and to apply it to all expenses. For example, if your total expenses are going up 3% per year, you can project that each individual expense will go up by 3% per year. This method doesn't take much time, but it isn't necessarily accurate. You may find that you have to make a lot of changes to your projections over time.

The more complex way to project expenses is to determine a rate of change for each individual expense. This will be a more accurate but more time-consuming projection. When you examine expenses

individually, you may find that they are changing at different rates. Some costs are going up faster than others. For example, the cost of health insurance is often rising faster than other costs.

There are also atypical occurrences that can impact expenses over time. For example, you may see that personnel costs dropped from one year to the next, but that may be because a long-time employee retired and was either replaced by a younger employee at a lower salary or perhaps was not replaced at all. Some years have unusually high or low rates of inflation (see box titled Inflation). Changes in usage from year to year can impact the utility's overall spending on chemicals and electricity.

You may also discover that some expenses have gone down or are lower than what they *should* be. Many utilities, for example, cut back on preventive maintenance when budgets are tight or staffing is short. If you find that you have been under-spending certain expenses historically, the best practice is to project these expenses at what they would be ideally rather than what they have been.

### INFLATION

Typically, prices for goods and services go up over time, an economic concept known as inflation. As a water or wastewater utility, inflation means that your expenses will likely rise every year. You will need to generate additional revenue or cut expenses in response. In the United States, the Federal Reserve has a goal of keeping inflation at 2% per year, though larger economic forces such as the Great Recession or the COVID-19 pandemic have caused inflation to be higher or lower in some years. A common measure of inflation is the Consumer Price Index (CPI), which is a measure of the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services. Information on the CPI is available from the Bureau of Labor Statistics at [bls.gov/cpi](https://www.bls.gov/cpi).



## Projecting Non-Operating Expenses

For the other types of expenses—capital outlays, debt service, and contributions to reserves—the past has very little to do with future expenditures. We need to look at each of these items individually.

### PROJECTING CAPITAL OUTLAYS

All of your utility's assets will eventually need to be replaced. And unless your system is able to obtain grants, your customers will be paying for the replacement, either through current revenues, debt, or reserve funds. Ideally, capital outlays should be made proactively and not in response to infrastructure failure. The best way to determine when infrastructure should be replaced is through an asset management program and a capital improvement plan.

Asset management is a comprehensive, integrated process for maintaining system infrastructure assets and equipment for the most effective, least-cost allocation of resources, in order to sustain the water or wastewater system over time. By being proactive versus reactive and not waiting until something breaks to replace it, systems are often able to provide more affordable, reliable service with fewer negative impacts for customers.

To do this requires asking and answering five critical “core” questions, identified by the U.S. Environmental Protection Agency:

- What are my assets, and what condition are they in?
- What are my sustainable level-of-service goals?
- What assets are most critical in achieving those goals?
- What are the minimum life-cycle costs of those critical assets?
- What is the best long-term funding strategy?

The information from an asset management program can be used to develop a capital improvement plan (called a “CIP” for short, or sometimes called a “long-range plan”). Covering at least a five-year period of time into the future, a CIP will help your utility's board and management make informed decisions about rate-setting, future debt-service requirements, and future revenue requirements. This written document specifies when capital improvements will be undertaken, how much the improvements will cost, and what financing options are available for the improvements.

In preparing a CIP, a number of considerations are taken into account, such as:

- Will current facilities reach their design capacity in the near future?
- What new equipment, services, or facilities are needed to meet the demands of your customers, your ideal level of service, and/or new regulatory requirements?
- What current system components will require major repair, rehabilitation, or replacement?
- Will failure to upgrade existing facilities result in regulatory violations or enforcement actions?
- What are the most critical improvement needs, and what is the urgency of meeting those needs?
- What benefits do the improvements provide to the system and to its customers?
- What are the available options for financing the improvements?
- Which capital projects can be financed through the regular resources of the system, and which projects will require outside financing?
- How do financing options for improvements relate to the annual budgeting process?

You may wish to use the assistance of a consulting engineer to

prepare cost estimates for major capital-improvement projects that might be needed in the future.

Some capital projects can be undertaken and completed with the utility's own financial resources. These are often known as short-lived assets, and they tend to be relatively lower in cost and/or require replacement more frequently. Examples include meters and valves. Other capital projects, known as major capital improvements, can be completed only with outside financial assistance such as bond issues, loans, or grants. These include higher-cost items such as treatment plants, storage tanks, and pipelines.

The information in the asset management program and CIP will help you anticipate future expenditures on capital outlays.

## ASSET MANAGEMENT RESOURCES

The Southwest Environmental Finance Center has partnered with the EPA to create a repository of documentation and tools related to asset management for water and wastewater systems called the Asset Management Switchboard. The switchboard is available at [swefcamswitchboard.unm.edu/am](http://swefcamswitchboard.unm.edu/am).

### PROJECTING DEBT SERVICE

Money borrowed through loans and bonds must be repaid on a fixed schedule. When you borrow money, you sign an agreement with the lender called a debt covenant, and that covenant lays out a repayment schedule—what you owe and when. As you project debt service into the future, you first must consult your current debt covenants to see what you will owe to lenders in the coming years.

Past expenditures on debt service may or may not be a good indicator. Some debt is repaid at the same dollar amount every month, while other debt may be paid more irregularly, with amounts increasing or decreasing over time. And when debt is paid off, those expenses do not carry over into the future. Looking at debt covenants will give you an accurate calculation of future debt service payments.

You must also consider whether your utility anticipates taking on new debt in the future. If your asset management program shows that you need a new wastewater treatment plant and you have worked that plant into your CIP for the coming year, you will have new debt service payments to include.

### PROJECTING CONTRIBUTIONS TO RESERVE ACCOUNTS

Utilities have relatively broad discretion in how much money they keep in reserve funds. Some states and territories do have suggestions or regulations about money in the bank—in particular, if a utility is financially regulated by a public utility or public service commission—but for the most part utilities can set their own reserve levels.

For many utilities, their annual contributions to reserves are just whatever is left over at the end of the year when all bills have been paid. A better practice is for utilities to set a target for reserve levels and build that target into their anticipated expenses. This is a policy decision that utility leaders must make every year.

Utilities with debt will also need to consider lender requirements for reserve funds. Most lenders require you to maintain a specified level of debt-service coverage—money in the bank above and beyond your loan payments to ensure that you can pay off debt service even if you have an unexpected revenue shortfall. Lenders will require you to document and report on this debt-service coverage and will insist that you maintain appropriate levels throughout the term of your loan.

## RESERVE FUNDS TIED TO DEBT

Debt-service reserves may not be the only type of reserve funds that lenders require. If you have any existing debt obligations, your debt covenant or letter of conditions will outline what is expected of you. If you are entering into a new debt agreement, be sure to ask your lender about reserve fund requirements. RCAP's *USDA Rural Utilities Service Borrower's Guide: A How-to for Water and Wastewater Loans from USDA Rural Development* outlines USDA's reserve fund requirements and is available at: [rcap.org/wp-content/uploads/2021/11/RCAP\\_BorrowersGuide\\_March-2021\\_final.pdf](http://rcap.org/wp-content/uploads/2021/11/RCAP_BorrowersGuide_March-2021_final.pdf).

## Projecting Revenue

As with expenses, different types of revenue require different methodologies for projections.

### PROJECTING REVENUE FROM RATES PAID BY CUSTOMERS

The level of revenue that utilities generate from rates each year is due to four factors:

- The number of customers, which impacts your revenue from the base rate;
- The number of gallons billed to your customers, which impacts your revenue from the flow rate;
- How many customers pay their bills on time, which impacts revenue from both the base rate and the flow rate; and
- How often you bill your customers.

By collecting three to five years of historical data on your number of customers, their overall usage, and the bill-payment rate, you can estimate those figures for the future. Are they generally going up? Going down? Staying roughly the same? For example, many small communities across the country are seeing declines in their population served and/or total annual gallons used over time.

If you have new development planned, be sure to include those new accounts in your customer count, and also include some usage from those new customers.

Once you have all of these numbers, all that's left is a bit of math. To calculate revenue from the base charge, use this formula:

$$\text{Number of Customers} \times \text{Base Rate} \times \text{Bill Payment Rate} \times \text{Annual Billing Periods}$$

To calculate revenue from the base charge, use this formula:

$$\text{Annual Billed Gallons}^* \times \text{Flow Rate } (\$/1,000 \text{ gallons}^*) \times \text{Bill Payment Rate } (\%) \div 1,000^*$$

(\* Note: adjust these portions of the formula if you bill in cubic feet or cubic meters)

## PROJECTING OTHER TYPES OF REVENUE

There are different strategies for projecting other types of revenue:

- Connection fee future revenue depends on how many new customers you anticipate for the utility. Historical numbers can be helpful, but the utility must also be aware of new development;
- Penalties that customers pay can be projected by looking at historical levels, though changes in the economy can impact non-payments (you may also need to adjust some of your projections if your state or territory banned shutoffs during the COVID-19 pandemic);
- Future rental revenue from cell phone or radio receivers is based on existing and pending contracts; and
- The future proceeds of loans or grants depend on how many opportunities the utility applies for and which of those are successful.

## Your Best Guess

No matter how good you are at doing the math for the projections, you have to remember one simple fact: You're still guessing. Using data allows you to make an educated guess, but there are factors that can impact your revenues, expenses, and reserves that are unforeseen or beyond your control.

Think about the weather. You may end up with a particularly rainy year, which means your customers will use less water for outdoor irrigation. If watering yards is commonplace in your community, this could result in much lower usage for the year. That can impact both your water rates and your wastewater rates, if the wastewater rates are based on water usage. Or your utility may face the opposite situation, a drought. If your supplies run low, you may be forced to issue water use restrictions that also lead to customers consuming less water. In both cases, your costs will go down a tiny bit if people use less because you will have lower levels of chemical use and electricity. But most of the costs of providing water service are not tied to usage, so those costs will remain the same.

You will likely face some emergency repairs that aren't planned for. Every utility, no matter how well-managed, will have some unexpected pipe breaks throughout the year. And natural disasters such as hurricanes and wildfires can be extremely costly for utilities. Looking at trends in data for the past several years cannot help you anticipate these extreme events. Utilities typically know from their geographies that someday they are likely to face extreme weather events, but they don't know when.

Nevertheless, an educated guess beats a wild guess any day. Your projections for future revenues, expenses, and contributions to reserves can help you develop a more accurate and effective budget, which will be discussed in the next chapter.

# CHAPTER FOUR

## Preparing Your Annual Budget

Your annual operating budget is a short-term, 12-month financial plan. The operating budget coincides with the fiscal year of your system and is a one-year forecast of your utility's expected revenues and expenses. How you spend money is a reflection of your utility's priorities, and you should think of your budget as one of the most important policy documents you create every year. The operating budget should be compatible with your utility's long-range financial plans.

The budget helps your utility's decision-makers keep adequate control of the finances. The passage of the annual budget is how your utility's governing board gives permission to the staff to spend money, and, as a result, the governing board must also give permission if the budget needs to be changed during the year.

### FISCAL YEARS

A fiscal year is a 12-month period that organizations use for financial reporting and budgeting. Annual financial statements are based on the fiscal year. Fiscal years typically start on January 1, July 1, or October 1 and may be governed by state, territorial, or Tribal regulation.

### Budgeting Basics

You should begin the process of forming the annual operating budget well in advance of the start of each new fiscal year. Ideally, the governing body should adopt the final annual operating budget no later than 30 days prior to the start of the new fiscal year.

Your annual operating budget should have budget categories that match the revenues and expenses in your utility's chart of accounts. Each individual utility can determine which budget categories to include—there is no nationally accepted standard for all water and wastewater utilities—but you should keep the categories the same from one year to the next. This will make comparisons across years much easier.

When your final budget plan has been completed, a projected cash-flow statement should be prepared to verify that monies will be available when needed. Remember that revenue and expenses are not necessarily spread evenly throughout the year. For example, many utilities earn more revenue during the summer months when customers use higher amounts of water for outdoor irrigation.

Finally, your anticipated expenses should not exceed anticipated revenues. If your projections for expenses for operations, capital, debt service, and transfers to reserves exceed your revenue, it is time to look at adjusting rates, cutting costs, or both.

### Gathering Data

To prepare the budget, you will need your projected future expenses, revenues, and reserve levels that were discussed in the previous chapter. The first step is to pull key data into a single table. Start with actual expenses from the past two full fiscal years plus the budget from the current fiscal year.

In **Table 1: 2022 Drinking Water Budget** on page 10, which is for the fictional utility Anytown USA, the actual revenues and expenses from previous years (2020 and 2021) and current budget year (2022) are compared. In columns E (dollars) and F (percentage), the differences amongst the three fiscal years are calculated to determine the growth or decline in the previous years' budget numbers.

In column F, the utility's board and management noted that total revenues for the system grew over the three-year period by only about one tenth of one percent (0.11%). Meanwhile, total operating expenses over the same period grew by almost six percent (5.72%), resulting in a reduction of net operating income and net income over the three-year period from 2020 through 2022 of more than 21%. Significant increases in system operating expenses over the three-year period have occurred in salaries, fringe benefit costs, electricity and utility costs, insurance expenses, contract labor, and repair and maintenance costs.

### SEPARATING DIFFERENT SERVICES

As you begin the process of collecting income and expense data from the past few years, you may discover that multiple services—water, wastewater, stormwater, and solid waste—may be lumped together into a single budget. If that is the case, it will be necessary to separate them in order to prepare an accurate annual budget. Each service should be self-sufficient. Some expenses will clearly be for one service or another. For less obvious expenses, like salaries of staff shared across multiple services, divide them based on the percentage of time they spend on each service. Your technical assistance provider can help you with this separation process. You may also need to separate out the financials for the various services in order to apply for funding from USDA and other programs.

# PAST THREE YEARS' DRINKING WATER BUDGET FOR ANYTOWN, USA

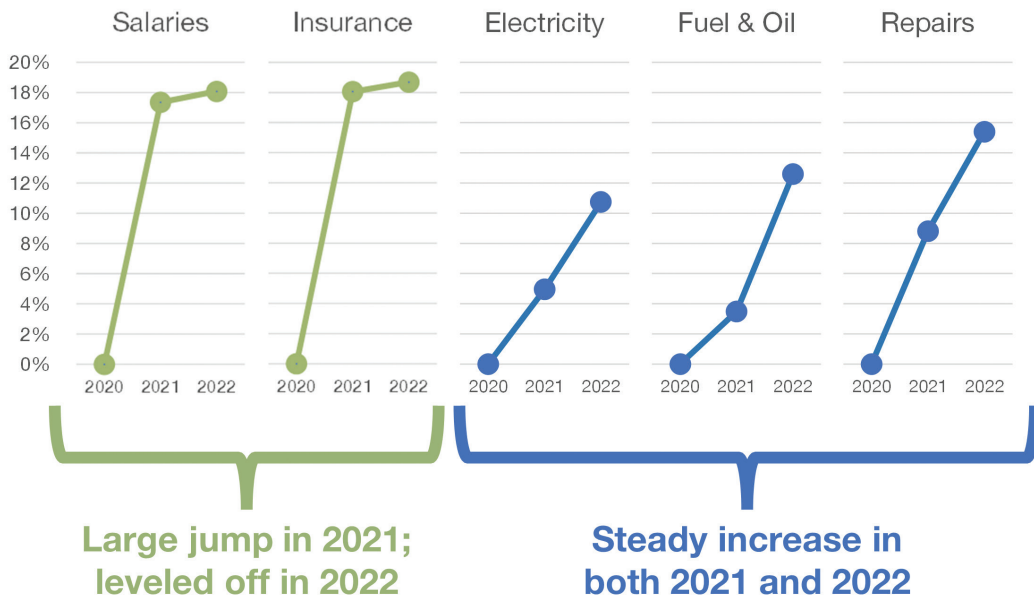
TABLE 1

Revenue	Actual 2020	Actual 2021	Current Year 2022 (Budgeted)	3-yr Diff + or -	% Diff 3-year Period
Water Sales	665,091	661,363	665,000	-91	
Misc. Construction & Meter Conn.	10,831	19,293	12,000	1,169	
Membership Fees Received	1,305	1,200	1,000	-305	
<b>Total Revenue</b>	<b>\$677,227</b>	<b>\$681,856</b>	<b>\$678,000</b>	<b>\$773</b>	<b>0.11%</b>
<b>Operating Expenses</b>					
Salaries & Fringe Benefits	153,700	180,381	181,500	27,800	
Depreciation Expense	118,338	112,598	115,000	-3,338	
Service Supplies	70,555	61,460	60,000	-10,555	
Electricity & Utilities	40,634	45,647	45,000	-4,336	
Insurance	33,702	40,786	40,000	6,298	
Contract Labor	29,484	35,545	32,000	2,516	
System Repair & Maintenance	19,498	24,816	22,500	3,002	
Taxes & Licenses	17,482	16,696	17,000	-482	
Fuel & Oil	11,990	13,408	13,500	1,510	
Telephone	7,761	9,701	9,500	1,739	
Bad-debt Expense	2,663	6,646	4,000	1,337	
Legal & Accounting	5,585	4,829	5,000	-585	
Miscellaneous	4,294	4,385	4,300	6	
Postage	4,659	4,374	4,500	-159	
Office Expenses	3,699	3,320	3,200	-499	
Continuing Education	3,603	2,913	3,000	-603	
Uniforms	3,226	2,841	3,000	-226	
Testing & Analysis	2,941	2,662	3,000	59	
Truck Expense	4,452	2,094	3,000	-1,452	
Bank Charges	90	132	150	60	
<b>Total Operating Expenses</b>	<b>\$538,356</b>	<b>\$575,234</b>	<b>\$569,150</b>	<b>30,794</b>	<b>5.72%</b>
<b>NET Operating Income (Loss)</b>	<b>\$138,871</b>	<b>\$106,622</b>	<b>\$108,850</b>	<b>(30,021)</b>	<b>-21.62%</b>



## Other Income & Expenses

Revenue	Actual 2020	Actual 2021	Current Year 2022 (Budgeted)	3-yr Diff + or -	% Diff 3-year Period
Interest Income	12,700	20,000	18,500	6,270	
Gain on Sale of Equipment	0	13,295	750	750	
Interest Expenses	-75,113	-71,671	-68,229	6,884	
<b>Total Other Income &amp; Expenses</b>	<b>-\$62,883</b>	<b>-\$38,376</b>	<b>-\$48,979</b>		
<b>NET Income (Loss)</b>	<b>\$75,988</b>	<b>\$68,246</b>	<b>\$59,871</b>	<b>(\$16,117)</b>	<b>-21.21</b>



**FIGURE 1—Changes in Expense Line Items from 2020 to 2022**

### Drafting the Proposed Annual Budget for Approval

Based on these data, Anytown prepared projected annual budget numbers for its FY (fiscal year) 2023 budget, which can be found in **Table 5: Projected Budget 2023** on page 12. This table represents the proposed annual budget that will be presented to the governing board for approval and final adoption.

Revenues are listed at the top of the budget document, but it is a best practice to calculate expenses first to determine whether current rates will be sufficient. From 2020 to 2022, Anytown has seen its overall expenses rise by about 6% in total, or about 3% year over year. Certain line items, however, such as salaries, insurance, maintenance, telephone, and utilities have risen more. Some line items have stayed roughly the same, and a few have actually decreased.

Anytown could choose to project that all expenses will increase by the same percentage. The better practice is to project each line item individually, which is what Anytown chose to do.

Salaries rose sharply from 2020 to 2021 but then leveled off in 2022. The utility hired a new person in 2021 that accounted for the additional cost. Salaries are projected to rise in 2023, but not by as much. Likewise, insurance costs rose sharply from 2020 to 2021 but also leveled off in 2022. These expenses are projected to rise

by 5%. Some other expenses, such as electricity, fuel, and repairs are projected to continue to rise by higher percentages. See Figure 1 above.

All line items that have decreased over the past three fiscal years are projected at 2% above their 2022 levels. Depreciation is projected to remain the same, and the utility chose to project bad debt expenses at the highest (2021) level from the past three years, to be conservative. Overall, expenses are projected to rise just above 4% from 2022 levels.

Even with this increase in expenses, Anytown would still generate a net positive revenue for the year. However, revenues have been flat over the past three years, while expenses have been increasing. As a result, the utility has proposed a water rate increase of 2.5% for the 2023 fiscal year. Revenues from water sales are projected to increase from approximately \$665,000 in 2022 to \$681,625 in 2023.

The rate increase will help to keep net income for 2023 at roughly the same level as 2022. Although it is not as high as in past years, the level will stop decreasing.

In addition to the projected budget numbers and budget categories, Column C of the table lists the assumptions that were made in preparing the budget. These assumptions help boards and decision-makers understand which line items are changing and why. This can help speed up the budget adoption process.

TABLE 5—Projected Budget 2023

Revenue	Projected 2023 Budget	Primary Budget Assumptions
Water Sales	681,625	2.5% increase in water rates
Misc. Construction & Meter Conn.	12,000	
Membership Fees Received	1,000	
<b>Total Revenue</b>	<b>\$694,625</b>	
<b>Operating Expenses</b>		
Salaries & Fringe Benefits	190,600	2.5% increase in water rates
Depreciation Expense	115,000	Remain constant from 2022 level
Service Supplies	61,200	Increase by 2% over 2022 level
Electricity & Utilities	48,600	Increase by 8% over 2022 level
Insurance	42,000	Increase by 5% over 2022 level
Contract Labor	33,600	Increase by 5% over 2022 level
System Repair & Maintenance	24,800	Increase by 10% over 2022 level
Taxes and Licenses	17,300	Increase by 2% over 2022 level
Fuel & Oil	14,600	Increase by 8% over 2022 level
Telephone	10,000	Increase by 5% over 2022 level
Bad-debt Expense	6,600	Match highest level from past three years
Legal & Accounting	5,100	Increase by 2% over 2022 level
Miscellaneous	4,400	Increase by 2% over 2022 level
Postage	4,600	Increase by 2% over 2022 level
Office Expenses	3,300	Increase by 2% over 2022 level
Continuing Education	3,100	Increase by 2% over 2022 level
Uniforms	3,100	Increase by 2% over 2022 level
Testing & Analysis	3,100	Increase by 2% over 2022 level
Truck Expense	3,100	Increase by 2% over 2022 level
Bank Charges	200	Increase by 2% over 2022 level
<b>Total Operating Expenses</b>	<b>\$594,300</b>	
<b>Net Operating Income (Loss)</b>	<b>\$100,325</b>	

## Other Income & Expenses

Revenue	Projected 2023 Budget	Primary Budget Assumptions
<b>Interest Income</b>	18,000	
<b>Gain on Sale of Equipment</b>	0	
<b>Interest Expenses</b>	-64,787	
<b>Total Other Income &amp; Expenses</b>	(\$46,787)	
<b>NET Income (Loss)</b>	(\$53,538)	

## Cash Flows

After the budget is completed, it is necessary to create a projected cash-flow statement in order to determine whether the budget would have a positive cash flow during the year.

**Table 3: Projected Cash-Flow Statement, Fiscal Year 2023**, on page 14, shows the projected cash flow for the coming fiscal year. In the cash-flow statement, the net income is added to items not requiring cash (depreciation expense). Items that do require cash (that is, the system’s loan principal payment and a \$20,000 expenditure for improvements) are subtracted from the projected total of net income and items not requiring cash. As you can see in the table, the projected cash-flow statement indicates that the utility will have a positive cash flow during FY 2023. The ending cash balance will be greater than the beginning cash balance by a total of \$85,538.

Although it is not required, the bottom of Table 4 illustrates how the projected \$85,538 in additional income will be distributed among the operating and reserve accounts during fiscal year 2023.



**TABLE 3—Projected Cash Flow, Fiscal Year 2023**

Source		Projected Amount
<b>A</b>	<b>Projected Net Income or Loss</b>	\$53,538
<b>B</b>	<b>Items in Operations not Requiring Cash:</b>	
	<b>1. Membership Fees Received</b>	\$115,000
	<b>2. Others: _____</b>	\$0
<b>C</b>	<b>Cash Provided from:</b>	
	<b>1. Proceeds from Loans/Grant Fund Financing Sources</b>	\$0
	<b>2. Proceeds from Others</b>	\$0
	<b>3. Increase (decrease) in Accounts Payable, etc.</b>	\$0
	<b>4. Decrease (increase) in Accounts Receivable, etc.</b>	\$0
	<b>5. Others: _____</b>	\$0
<b>D</b>	<b>Total all A,B,C Items</b>	\$168,538
<b>E</b>	<b>Less: Cash Expended for:</b>	
	<b>1. Construction, Equipment, New Capital (Loan &amp; Grant Funds)</b>	\$0
	<b>2. Rehabilitation, Replacement of Existing Plant, Equipment</b>	\$20,000
	<b>3. Loan Principal Payment-Primary Lender</b>	\$63,000
	<b>4. Principal Payments Other Loans</b>	\$0
	<b>5. Others: _____</b>	\$0
	<b>6. Total E1 through 5</b>	\$0
<b>F</b>	<b>Beginning Cash Balances</b>	\$528,000
<b>G</b>	<b>Ending Cash Balances (Total of D minus E6 Plus F)</b>	\$613,538

Item G Cash Balances Composed of	Estimated Balances 12/31/22	Projected Account Transfers	Projected Balances FY 2023
General Operating Account	\$180,000	\$21,600	\$201,600
Emergency Reserve	\$90,000	\$8,903	\$98,903
Debt-service Reserve	\$128,000	\$0	\$128,000
Equipment Repair/Replacement	\$30,000	\$14,568	\$44,568
Capital-improvements Reserve	\$100,000	\$40,467	\$140,467
<b>Total (agrees with Item G)</b>	<b>\$528,000</b>	<b>\$85,538</b>	<b>\$613,538</b>
<b>Check Transfer Amt</b>		<b>\$85,538</b>	



# CHAPTER FIVE

## Monitoring Financial Performance

After budgets have been prepared and the financial plans have been completed, the job of monitoring your system's financial performance begins. Financial oversight allows you to know that everything is proceeding according to plan and that, financially speaking, your utility is on the right track.

Providing effective financial oversight means not only monitoring and adjusting the current operating budget, but also understanding common financial statements—such as the balance sheet, the annual income statement, and audit reports—and making informed decisions about the future based upon the important information these statements provide.

The remainder of this chapter discusses in detail the monitoring and oversight functions of a utility's governing body and management.

### Monitoring the Annual Budget

Your governing board should receive and review financial reports every month. The monthly financial reports compare the current year's line-item budget to the actual revenues received and expenditures incurred. A sample monthly income statement, part of a financial report, can be found in **Table 4: Sample Monthly Income Statement** on page 16.

In column D, "Budget target number," you will see the target (planned) revenue and expenditures for the first nine months of the budget year. In this sample, the report is for the month ending September 30, 2022, which is month number nine of the fiscal year. The budget targets in Table 5 represent 75% of the annual budget (9 months divided by 12 months = 75%).

In column E, "Actual difference (over or under) budget target," the difference between each line item's (row's) target value and the actual revenue or expense is shown. For revenue line items (items in the revenue category), a positive number (+) indicates that revenues are below the projected revenue target, and a negative number (-) indicates that the revenue line item exceeded the projected target. For expense line items (items in the expenses category), a negative number (-) means that expenses are currently over budget, and a positive number (+) means the expense line-item is currently under budget.

Table 5 provides one example of how an annual operating budget can be monitored, and, if necessary, adjusted during the fiscal year. In this sample financial report, actual total revenues are slightly less than the budget target number, and the total operating expenses are \$20,143 less than the budget target.

Note: Some of the elements shown in Table 5 may not appear in your utility's monthly income statement, and the column headings in your statement may be different than this example's headings. This example provides more than the usual amount of text in some elements, such as the column labels, in order to explain what type of information is in the statement. Don't hesitate to ask the person who prepares your utility's financial reports to explain the parts of a report or even to provide different labels or details in a report.

### REVENUES AND EXPENSES ACROSS A FISCAL YEAR

Many expenses are roughly the same each month, such as bank fees or health insurance payments. Not all revenues and expenses, however, will be spread out evenly across the fiscal year. For example, your revenues are likely highest in the months when customers consume the most water or wastewater and lowest in the months they consume the least. Likewise, your expenses that vary depending on the amount of water produced or wastewater collected—electricity and chemicals, for example—will be highest in high-use months. Other expenses may only happen once or twice a year, such as the cost of your annual financial audit. And other expenses happen only periodically or "as needed," such as conference fees, uniforms, and emergency repairs. Understanding when you are expecting certain costs and revenues will help you monitor your financial performance more effectively.

TABLE 4—Sample Monthly Income Statement

**Name of Utility: Anytown, USA**

**Total Number of Full Months for This Report: 9**

**Total Number of Months-Full Fiscal Year: 12**

<b>Revenue</b>	<b>Current Year 2022 (Budgeted)</b>	<b>Current Year Actual</b>	<b>Budget Target Number</b>	<b>Actual Difference (Over or Under) Budget Target</b>
<b>Water Sales</b>	665,000	496,341	498,750	2,409
<b>Misc. Construction &amp; Meter Conn.</b>	12,000	6,634	9,000	2,366
<b>Membership Fees Received</b>	1,000	457	750	293
<b>Total Revenue</b>	<b>\$678,000</b>	<b>\$503,432</b>	<b>\$508,500</b>	<b>\$5,068</b>
<b>Operating Expenses</b>				
<b>Salaries &amp; Fringe Benefits</b>	181,500	139,500	136,125	-3,375
<b>Depreciation Expense</b>	115,000	86,250	86,250	0
<b>Service Supplies</b>	60,000	40,000	45,000	5,000
<b>Electricity &amp; Utilities</b>	45,000	31,267	33,750	2,483
<b>Insurance</b>	40,000	30,000	30,000	0
<b>Contract Labor</b>	32,000	18,769	24,000	5,231
<b>System Repair &amp; Maintenance</b>	22,500	11,340	16,875	5,535
<b>Taxes &amp; Licenses</b>	17,000	8,976	12,750	3,774
<b>Fuel &amp; Oil</b>	13,500	10,765	10,125	-640
<b>Telephone</b>	9,500	7,500	7,125	-375
<b>Bad-debt Expense</b>	4,000	450	3,000	2,550
<b>Legal &amp; Accounting</b>	5,000	4,000	3,750	-250
<b>Miscellaneous</b>	4,300	3,500	3,225	-275
<b>Postage</b>	4,500	4,000	3,375	-625
<b>Office Expenses</b>	3,200	1,895	2,400	505
<b>Continuing Education</b>	3,000	1,587	2,250	663
<b>Uniforms</b>	3,000	2,450	2,250	-200
<b>Testing &amp; Analysis</b>	3,000	2,500	2,250	-250
<b>Truck Expense</b>	3,000	1,876	2,250	374
<b>Bank Charges</b>	150	95	113	18
<b>Total Operating Expenses</b>	<b>\$569,150</b>	<b>\$406,720</b>	<b>\$426,863</b>	<b>\$20,143</b>
<b>NET Operating Income (Loss)</b>	<b>\$108,850</b>	<b>\$96,712</b>	<b>\$81,638</b>	

## Other Income & Expenses

Revenue	Current Year 2022 (Budgeted)	Current Year Actual	Budget Target Number	Actual Difference (Over or Under) Budget Target
Interest Income	\$18,500	\$9,000	13,875	4,875
Gain on Sale of Equipment	750	50	563	513
Interest Expenses	-68,229	-51,172	-51,172	0
<b>Total Other Income and Expenses</b>	<b>-48,979</b>	<b>-42,122</b>	<b>-36,734</b>	<b>5,388</b>
<b>Net Income (Loss)</b>	<b>\$59,871</b>	<b>\$54,590</b>	<b>\$44,903</b>	

## Standard Financial Statements

The key for determining the financial performance and financial sustainability of your utility will be found in the financial statements produced by your bookkeeping staff, accountant, or independent auditor. The standard financial statements of primary importance for monitoring financial performance are:

- The balance sheet (sometimes called the statement of financial position), which shows the system’s net worth, or how much the system is worth at a particular point in time;
- The income statement (or statement of activity), which shows the results of operations over a period of time, or how much revenue the system has earned vs. the amount of expense it has incurred; and
- The cash-flow statement, which breaks down all of the financial transactions of the system in terms of how they affect the flow of cash.

Financial statements are a good way to compare information. When balances from the current and previous year are shown side by side, it allows for easy comparison between these two time periods. The remainder of this section will cover these standard financial statements in detail.

## The Balance Sheet

The balance sheet has three components:

- Assets,
- Liabilities, and
- Equity.

The heading of the balance sheet includes the date, the point in time for which the balance sheet is relevant. The heading of **Table 5: Sample Balance Sheet**, page 18, shows the date December 31, 2021, and compares the numbers for 2021 to those of the previous year.

It is called a “balance sheet” because the numbers on the sheet must be in balance. This means the total assets must equal the total liabilities and equity:

$$\text{Liabilities} + \text{Equity} = \text{Total Assets}$$

What if the liabilities of your utility are more than its assets? In that case, your system has what is called “deficit equity.” Deficit equity occurs when the system has incurred more in net losses over the life of the system than net income. Deficit equity will typically be noted by parentheses around the numbers in the equity section of the balance sheet. Particular care

should be taken when reviewing the balance sheet of a system with deficit equity. Questions should be asked to determine how the system got into a deficit position, and a plan should be formulated for moving the system back to a stable, or “positive-equity,” position.

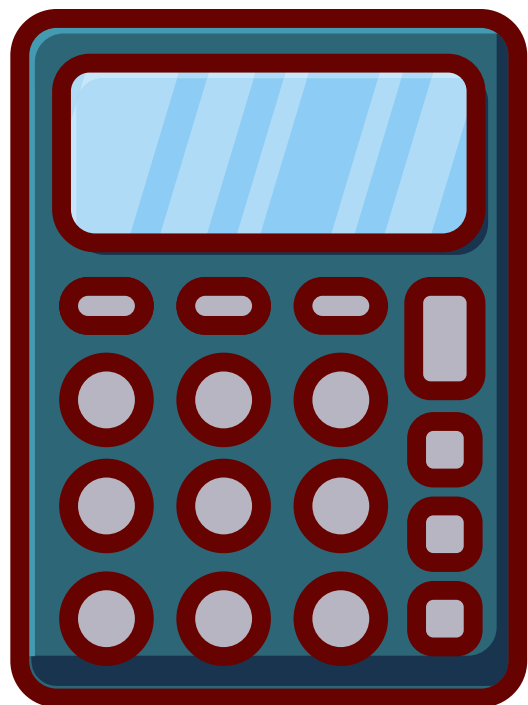


TABLE 5—Sample Balance Sheet for Anytown, USA

Assets	2021	2020
<b>Current Assets</b>		
Cash & cash equivalents	496,474	253,573
Accounts receivable	60,026	65,040
Prepaid expenses	4,982	4,957
Short-term investments	2,219	0
Inventory	14,248	15,302
<b>Total Current Assets</b>	<b>\$577,949</b>	<b>\$338,872</b>
<b>Fixed Assets</b>		
Land	6,950	6,950
Property, plant & equipment at cost	2,915,599	2,915,599
Less accumulated depreciation	-1,636,060	-1,523,462
<b>Total Inventory</b>	<b>1,286,489</b>	<b>1,399,087</b>
<b>Long-Term Assets</b>		
Investments	86,660	186,660
<b>Total Long-Term Assets</b>	<b>86,660</b>	<b>186,660</b>
<b>Total Assets</b>	<b>\$1,951,098</b>	<b>\$1,924,619</b>
<b>Liabilities and Net Assets</b>		
<b>Current Liabilities</b>		
Accounts payable	8,452	7,987
Current portion of long-term debt	56,123	54,238
Withheld & accrued payroll taxes	3,158	3,479
Accrued interest	13,335	0
Meter deposits	43,504	44,602
Other accruals	1,425	1,335
<b>Total Current Liabilities</b>	<b>125,997</b>	<b>111,641</b>



## Long-Term Liabilities

<b>Long-term notes payable</b>	1,297,938	1,354,061
<b>Total Long-Term Liabilities</b>	1,297,938	1,354,061

## Equity

<b>Contributed capital (membership)</b>	56,415	56,415
<b>Donated capital (govt. grants)</b>	1,720,300	1,720,300
<b>Retained earnings</b>	-1,249,552	-1,317,798
<b>Total Equity</b>	527,163	458,917
<b>Total Liabilities &amp; Net Assets</b>	\$1,951,098	\$1,924,619

## Assets

Assets are the total economic resources of a system that are expected to provide benefits to the system in the future. Assets are normally listed in liquidity order, which means they are listed based on how easy they are to convert to cash. So naturally, the first item listed will be cash and cash equivalents. The assets section is also broken down into:

- Current assets,
- Fixed assets, and
- Long-term assets.

### Current assets

Current assets are items that can be converted into cash within one year of the date of the balance sheet. Current assets include cash and cash equivalents, accounts receivable, inventories, short-term investments, and prepaid assets.

### Fixed assets

Fixed assets are the land, buildings, furniture, and fixtures that the system owns and uses in day-to-day operations. On the sample balance sheet, fixed assets are broken down to show the value of each category. The amount of accumulated depreciation is then subtracted to “net down” to the book value of the assets. Some systems may choose to show only the book value of the assets on their financial statements. Both presentations are acceptable.

What does depreciation mean in terms of fixed assets? Over time, the value of fixed assets is “used up,” and you must account for the decrease in value of these assets from the normal wear and tear due to age



and typical use. This is done by recording depreciation. There are several methods for calculating depreciation. Under all methods, the system's managers must determine the lifespan of the asset, or how long they expect to be able to use the asset.

## DEPRECIATION

Depreciation is an important if often misunderstood concept for successful utility financial management. The Environmental Finance Center Network hosted a one-hour webinar in 2016, "Demystifying Depreciation and How to Make Use of It," that explained how accountants measure depreciation, discussed the difference between the depreciated value and actual condition of assets, and explored ways that depreciation can be incorporated into long-term system planning. The webinar featured insights from a certified public accountant who works extensively with small water and wastewater utilities. A recording of the webinar is available at [efcnetwork.org/events/webinar-demystifying-depreciation-make-use](http://efcnetwork.org/events/webinar-demystifying-depreciation-make-use).

## Long-term assets

The easiest method of calculating depreciation is the straight-line method. For example, the normal lifespan of a building is 30 years. If a building initially costs \$100,000 and has a life of 30 years, it will depreciate \$3,333 (\$100,000/30 years) per year. The building will "use up" \$3,333 in value each year, so this year it is worth \$3,333 less than last year, and next year it will be worth \$3,333 less than this year, and so on. The amount of what is used up is tracked and added together in the accumulated depreciation account.

The accumulated depreciation is separated from the original cost to see what was paid originally for the asset and how much of the asset has been used up.

The net value of the asset (or book value) provides the utility's management a current estimate of the value of the plant, property, or equipment. Land value does not depreciate.

Long-term assets include items that cannot be converted to cash within one year of the date of the balance sheet. Common examples of long-term assets include investments with maturity dates more than one year. In the sample balance sheet, the utility has a certificate of deposit with a maturity date of January 2, 2022—two days longer than one year.

## TOTAL ASSETS

Adding current assets to fixed assets and long-term assets provides the total assets.

## Current Assets + Fixed Assets + Long-Term Assets = Total Assets

The next step is to determine your system's liabilities and equity, or what your system owes and what it is worth.

## Liabilities

Liabilities are what your system owes to others. The liabilities section of a balance sheet is divided into two components: current liabilities and long-term liabilities.

### CURRENT LIABILITIES

Current liabilities include current maturities of long-term debt, accounts payable, accrued liabilities, and other short-term notes to be paid. Long-term liabilities are loans expected to be paid back over several years.

On the sample balance sheet, the current liabilities are broken down into:

- **ACCOUNTS PAYABLE** What the system owes for the normal operations of business, such as utility bills (electricity, etc.), office supplies, and reimbursements to employees for travel expenses.
- **CURRENT PORTION (MATURITIES) OF LONG-TERM DEBT** This refers to the principal amount the system will be required to repay on long-term loans during the next 12 months. This figure does not equal the total payment amount, as that includes both the interest and the principal. The current maturities line item records only the principal that is being repaid. This amount can be obtained by reviewing the payment schedule of each outstanding loan and adding up the principal portion of each monthly payment for the next 12 months.
- **ACCRUED LIABILITIES** are basically the same as accounts payable, in that they represent what your system owes to others. The difference accrued liabilities and accounts payable has to do with to whom the amounts are owed. Accounts payable usually refers to items the system has purchased in the normal course of operations to support the ongoing activities of the system. Accrued liabilities are typically items that would be owed to employees, such as salaries, unpaid vacation/sick time, and payroll taxes withheld from employees' checks but not yet remitted to the taxing agency. Accrued liabilities also include security or meter deposits from customers—these are considered liabilities because the expectation is that the system will have to return them to the customer.
- **ACCRUED INTEREST** is interest that has been incurred but not paid. For example, many systems have long-term loans or bonds that require only annual or semi-annual payments. Even though the system has not paid interest during the months between payments, it still has incurred the interest and owes it to the lender. The system will be required to pay this incurred interest with the next regular payment. The system should record the interest as it is incurred on its balance sheet as an accrued, current liability.

### LONG-TERM LIABILITIES

Long-term liabilities include investments and the portion of payments to be made over the next several years that are not

included in the current liabilities. For example, if you took out a capital-improvements loan that you were scheduled to pay back over the next five years, the principal amount to be repaid within the next year would be recorded in current liabilities, and the remaining principal scheduled to be paid back in years 2 through 5 would be listed as a long-term liability.

## Equity

The final section of the sample balance sheet covers equity (or net assets). Depending on the legal structure of your system (for-profit vs. governmental unit vs. nonprofit), this section will have various names. Other names include: net assets, fund balance, or owner's equity.

Equity is the net value of the system over time. Equity is what would be left if the utility closed its doors, paid off all of its outstanding bills, collected everything that it was owed, and sold all of its assets for exactly the same prices as they were recorded in the financial statements. The system increases its equity each year it earns a net income—or has more revenue than expenses. In turn, a system decreases its equity each year it incurs a net loss—or has more expenses than revenue.

Looking at the sample balance sheet, you will see that, if the system ceased operations on December 31, 2021, paid its outstanding liabilities, collected the accounts receivable, and sold the inventory and fixed assets for the amounts listed in the financial statement, it would have cash in the bank totaling \$527,163.

## Reviewing the Balance Sheet

Now that you know the components of the balance sheet, it is time to put this knowledge to use.

### FIRST, LOOK FOR CHANGES

Look for significant changes from one year to the next on a comparative statement. It is important to know why changes are taking place so that you will know whether corrections need to be made immediately to keep the system in the black. Questions to ask include:

- Why did the value of fixed assets increase or decrease?
- Was new equipment purchased and installed?
- Was equipment sold or otherwise disposed of?
- Why did account receivables rise or drop dramatically?
- Was there a breakdown in bill collections or an increase in efforts to collect outstanding bills?
- Were new customers added, or were large water consumers lost?

### SECOND, CALCULATE IMPORTANT RATIOS

Calculating a few common ratios can also provide a better picture of the system's overall financial health. The two most important are liquidity ratios and leverage ratios.

#### Liquidity ratio, or current ratio

The liquidity ratio, or current ratio, measures a system's ability to pay off current liabilities. Systems with less than a 1.5 liquidity ratio are considered to be in financial distress. To calculate the liquidity ratio, simply divide the balance sheet's current assets by the current liabilities:

$$\text{Current Assets} \div \text{Current Liabilities} = \text{Liquidity Ratio}$$

On the sample balance sheet (for 2021):

- Current assets: \$577,949
- Current liabilities: \$125,997

Using the formula above to calculate, you will arrive at a liquidity ratio of 4.59:

$$\$577,949 \div \$125,997 = 4.59$$

Judging from this liquidity ratio, the sample rural water system is in safe financial waters.

#### Leverage ratio

The leverage ratio measures how much the system relies on debt. A leverage ratio below 0.30 indicates that the system may be in financial distress. The leverage ratio is determined by dividing the equity by total assets:

$$\text{Equity} \div \text{Total Assets} = \text{Leverage Ratio}$$

On the sample balance sheet (for 2021):

- Total equity: \$527,163
- Total assets: \$1,951,098

Using the formula above to calculate, you will arrive at a leverage ratio of 0.27:

$$\$527,163 \div \$1,951,098 = 0.27$$

The utility has a heavy debt load compared to actual value, which means that this system could be considered to be in financial distress. Keep in mind, however, that these ratios are only indicators. They should be used as tools to help guide the review of financial statements and not as anything absolute. One ratio alone will not determine the financial health of a system. These and other ratios should be considered together.

Throughout the remainder of this chapter you will learn to use different tools and to look at all of the numbers and ratios available to you in order to develop a true understanding of your utility's financial health.

## The Income Statement

The balance sheet provides a good snapshot of where the system stands at a particular point in time. But what about over a longer period of time? Are budget goals being met? Is equity growing or shrinking?

The best way to answer these questions is with the income statement. Sometimes referred to as the **Statement of Activities**, the income statement shows the results of operations over a specific period of time, much like a scoreboard does during a single football game. Just as you clear the scoreboard at the end of the game, the income statement starts over at the end of a set time period, such as at the end of a fiscal year.

The income statement shows how much revenue an organization has earned and how much expense it has incurred during the specified period. Income and expenses are broken down by type to provide a better understanding of how the system generates revenue and how it spends it.

Generally, the income statement tracks revenue and expense on a 12-month fiscal year basis. For Anytown, the example utility used in this publication, the fiscal year coincides with the calendar year, January 1 through December 31.

At the end of the fiscal year, all revenues and expenses incurred during that year are moved to the equity section of the balance sheet.

TABLE 6—Sample Income Statement for Anytown, USA

Revenue	2021	2020
<b>Water Sales</b>	661,363	665,091
<b>Misc. Construction &amp; Meter Conn.</b>	19,293	10,831
<b>Membership Fees Received</b>	1,200	1,305
<b>Total Revenue</b>	\$681,856	\$677,227
<b>Operating Expenses</b>		
<b>Salaries &amp; Fringe Benefits</b>	180,381	153,700
<b>Depreciation Expense</b>	112,598	118,338
<b>Service Supplies</b>	61,460	70,555
<b>Electricity &amp; Utilities</b>	45,647	40,634
<b>Insurance</b>	40,786	33,702
<b>Contract Labor</b>	35,545	29,484
<b>System Repair &amp; Maintenance</b>	24,816	19,498
<b>Taxes &amp; Licenses</b>	16,696	17,482
<b>Fuel &amp; Oil</b>	13,408	11,990
<b>Telephone</b>	9,701	7,761
<b>Bad-debt Expense</b>	6,646	2,663
<b>Legal &amp; Accounting</b>	4,829	5,585
<b>Miscellaneous</b>	4,385	4,294
<b>Postage</b>	4,374	4,659
<b>Office Expenses</b>	3,320	3,699
<b>Continuing Education</b>	2,913	3,603
<b>Uniforms</b>	13,408	11,990
<b>Testing &amp; Analysis</b>	2,662	2,941
<b>Truck Expense</b>	2,094	4,452
<b>Bank Charges</b>	132	90
	\$575,234	\$538,356
<b>Net Operating Income (Loss)</b>	\$106,622	\$138,871

## Other Income & Expenses

Revenue	2021	2020
<b>Interest Income</b>	20,000	12,230
<b>Gain on Sale of Equipment</b>	13,295	0
<b>Interest Expenses</b>	-71,671	-75,113
<b>Total Other Income &amp; Expenses</b>	-38,376	-62,883
<b>NET Income (Loss)</b>	\$68,246	\$75,988

### READING THE INCOME STATEMENT

To understand the income statement, the best place to start is at the very top. Look at **Table 7: Sample Income Statement** on page 26. The heading provides valuable information, including the name of the system and the time period covered by the statement.

A heading that reads, for example, “for the month ending December 31, 2021” means the statement shows revenue and expenses incurred during December 2021 only. A heading that reads, for example, “for the quarter ending December 31, 2021” indicates that the document covers revenue and expenses incurred from October 1 to December 31 of 2021. A heading that reads, “for the year ending December 21, 2021,” would cover the entire fiscal year, which in this case takes place from January 1, 2021, to December 31, 2021.

The time frame indicated in a statement’s heading is important because it lets you know when the revenue listed has been *earned* and when the expenses have been *incurred*. It is important to stress *earned* and *incurred* because the system may not have collected or paid the cash as of the date of the income statement, but it is *entitled* to the revenue and is *obligated* to pay the expenses. It is common to have a time difference between the date you record the financial information and the date you actually collect the money or pay the expense.

Revenue recorded on the income statement may not correspond exactly to deposits made to the system’s bank account, nor will expenses tie directly to checks written by the system. Those deposits may be made or checks may be written *after* the period listed on the income statement, but the obligation to make those deposits or write those checks takes place during that period, and therefore must be logged.

### ACCRUAL ACCOUNTING

Most utilities record financial activities on the accrual basis of accounting. Under this type of accounting, the system must record revenue when it is earned or when the system is entitled to the money. It also must record expenses when they are incurred or when the system is legally obligated to pay the debt.

It doesn’t matter when the system actually collects the money or pays the cash.

An example: A water system prepares water bills for customers’ water usage in May on the last day of that month and puts those bills in the mail. The system records a receivable at that time for what customers owe for May water usage, even though the money won’t actually be received until around the due dates in mid-June. This increases receivables on the balance sheet and increases revenue from water sales on the income statement. The same is true of expenses. If the system receives a bill on May 31, it is recorded then, even though the bill may not be paid until sometime in June.

### UNDERSTANDING DETAILS

Now that you know the basic function of, and information found on, an income statement, you will more easily understand how to review each section. There are three basic elements of an income statement: revenue, operating expenses, and net operating income (or loss).

- **REVENUE** is income that has been earned by the system. Examples include water sales to customers, late charges, and service charges.
- **OPERATING EXPENSES** are incurred during the system’s normal operation. This can include salaries, fringe benefits for employees, utility bills, insurance, and water purchased for resale.
- **NET OPERATING INCOME (OR LOSS)** is determined by subtracting operating expenses from revenue. If the system has more revenue than expenses, it is operating with a net income. If operating expenses are greater, the system is operating with a net loss. This is a very important number because you want to make sure your system is charging enough to cover the full cost of providing water.
- **OTHER INCOME AND EXPENSES** is the category where you list interest income, interest expense, and any gains or losses on sales of equipment. It also will show items that are unusual in nature, such as things not related to the operation of the system. Unusual items are hard to define, but as the saying goes, “You’ll know them when you see them.” They are sometimes items that do not occur on a monthly basis, such as regulatory expenses, consultants (an engineer), or fines.
- **FINAL NET INCOME (OR LOSS)** is the last line on the statement. To determine the overall net income, add the net operating income to other income and expenses (or subtract if



it's a loss). This gives you the final net income (or loss) for the period listed on the income statement, such as the fiscal year.

**Net Operating Income + Other Income and Expenses = Net Income for Statement Period**

or

**Other Income and Expenses – Negative Operating Income = Net Income for Statement Period**

The income statement in Table 7 is a comparative income statement because it shows figures for both 2020 and 2021. Comparative income statements provide an idea of how the system is progressing: Are revenues up or down? Do the revenue changes make sense? Why are water sales way up over the same period last year? Are there more customers, or did the system implement a rate increase? Is revenue down and, if so, why? Are expenses up or down? If so, again, why?

Any changes from one year to the next should make sense to you. Don't be afraid to question employees, such as the operator, bookkeeper, accountant, or the utility's auditor, until the answers make sense and until you receive an explanation you can understand.

## Calculating Income-Statement Ratios

In the balance sheet section of this guide (page x), we learned how to calculate the liquidity and leverage ratios to check the system's fiscal health. Calculating ratios from the income statement is also an effective way to check the overall fiscal health of a system. The two most important ratios to calculate on the income statement are the operating ratio and the debt-service ratio.

The operating ratio is a simple calculation used to measure the profitability of a system. Normally, a water utility that has an operating ratio of less than 1.0 is considered financially distressed. The formula for calculating the operating ratio is:

**Operating Revenues ÷ Operating Expenses = Operating Ratio**

On the sample income statement (for 2021):

- Total revenue: \$681,856
- Total operating expenses: \$575,234

Using the formula above to calculate, you will arrive at an operating ratio of 1.19:

$$681,856 \div 575,234 = 1.19$$

The system appears to be financially viable.

## DEBT-SERVICE COVERAGE RATIO

The debt-service coverage ratio measures a utility's ability to pay its debt. The adequate debt-coverage ratio will vary from system to system, depending upon the requirements of each lender or, in some cases, state/territorial/Tribal statute.

The Rural Utilities Service (of USDA Rural Development) Water and Wastewater loan program is a major federal lender for small and rural utilities. The RUS prefers a minimum debt-service coverage ratio of 1.1 or higher, as calculated by the following formula:

**(Net Operating Income + Depreciation) ÷ Total Debt Service = Debt-Service Coverage Ratio**

Total debt service refers to the total annual payment made during the year on funds borrowed by the system, including principal, interest, and any debt-service reserve deposits that may be required. To calculate the example utility's total debt service for 2021, first

locate the line item "Current portion of long-term debt" in Table 6: Sample Balance Sheet on page 22. The current portion of long-term debt for this utility for 2021 is \$56,123 and represents the system's principal payments. Add this amount to the line item "Interest expense" from Table 7. This gives us a total debt service for the sample utility of \$127,794 (principal payment of \$56,123 + interest expense of \$71,671 = \$127,794).

Now add the "Net operating income" from Table 7 of \$106,622 to the "Depreciation expense" from Table 7 of \$112,598 to obtain the sum of \$219,220.

Divide this sum, \$219,220, by the total debt service of \$127,794 to arrive at a debt-service coverage ratio of 1.71 according to the above formula:

$$\$219,220 \div \$127,794 = 1.71$$

With a debt-service coverage ratio of 1.71, the example water utility is able to meet its annual debt-service payment requirements and would not be considered in financial distress.

## FINANCIAL HEALTH CHECKUP TOOL

The UNC Environmental Finance Center has a free financial health checkup tool to assess the financial performance of your water and wastewater utility. By inputting data from your financial statements, the tool calculates many of the key financial ratios discussed in this chapter. The Excel tool is available at: [efc.sog.unc.edu/resource/financial-health-checkup-water-utilities](http://efc.sog.unc.edu/resource/financial-health-checkup-water-utilities).

## The Cash-Flow Statement

The Cash-Flow statement shows how all of an organization's financial transactions during the year increased or decreased the available cash. It also shows how much cash is available at the end of the year after all of the transactions are tallied. The cash-flow statement breaks down transactions into three areas: financing, investing and operation:

- **FINANCING** activities are transactions resulting from actions to attract investors or creditors. Examples include loans for purchases of assets or major improvements to the system.
- **INVESTING** activities are transactions made to obtain the property, plant, and equipment needed to run the organization. They also include transactions associated with the investment of idle cash, such as purchasing stocks or bonds. Another example is purchasing a new building or new equipment.
- **OPERATING** activities are the required transactions for the system to perform its function of providing safe drinking water to customers. Operating transactions can include employee salaries, office supplies, minor repairs to the system, and the purchase of water from other systems.

## WHY IS THE CASH-FLOW STATEMENT IMPORTANT?

The cash-flow statement is often the most overlooked of the three main financial statements. It is also the most difficult to read and understand. It is sometimes thought of as the least important of the three statements, but this isn't the case.

The lack of cash flow can kill an organization faster than operating at a net loss every day. Even if a system shows more assets than liabilities and shows a net income, it still could be in serious financial distress if the cash flow isn't sufficient to meet obligations. Many organizations that file for bankruptcy have more assets than liabilities on their balance sheets and show a net income on their income statements. However, a review of their cash-flow statements often shows that, in the months or years prior to the bankruptcy, they did not have sufficient cash resources to meet their obligations.

An organization that does not have the cash available to pay operating expenses can spiral quickly into financial distress.

A negative cash flow can create a chain of events that will prevent your utility from providing safe and reliable service to your customers:

- Without available cash in the bank, bills go unpaid or are paid late. Not only does this damage the system's reputation with the party to be paid, but it also can lead to late fees and interest penalties. These must be added to the system's operating costs.
- Late or missed payments can damage the water system's credit rating. As a result, the system may be required to pay cash for supplies and services. Because cash is already limited, the system may be unable to obtain necessary supplies and services.
- Without necessary supplies and services, the system must delay or forego necessary maintenance or repair to the system.
- Without necessary repairs, supplies, and services, the quality or quantity of water produced may suffer. The system's reliability can be affected, and service can be disrupted.
- Eventually the utility may be forced into making emergency repairs or be cited for operational deficiencies by regulatory agencies—or both.

The cash-flow statement can alert you to a possible scenario like the above example because it shows how the accounts on the balance sheet have changed from one year to the next.

There are three areas on the cash-flow statement that are of particular importance in providing a snapshot of your system's fiscal health: accounts receivable, accounts payable, and long-term debt.

## ACCOUNTS RECEIVABLE

The first item to check in your cash-flow statement is the line item "(Increase) Decrease in accounts receivable." In Table 7: Sample Statement of Cash Flows on page 26, you will find this line item under the heading "Adjustments to reconcile change in net assets to net cash."

As previously discussed, accounts receivable are payments owed to you by vendors or customers. An increase in accounts receivable from one year to the next means that the system was owed more at the end of the current fiscal year than it was owed at the end of the last fiscal year. This could be a warning sign, and it's important to determine why the system was owed more this year than last. One possible explanation is simply system growth—more customers

means more receivables. However, it also could mean that the system isn't actively pursuing unpaid utility bills.

When the system records the amount due from customers, it increases both revenue and assets. The system shows a healthy revenue and net income as well as increased assets. Everything looks good when the amount due is recorded.

But what happens if the customers don't pay what is actually owed?

The system is out the cost for providing the water/wastewater services and doesn't have the cash to pay the costs of future service. The problem becomes worse the longer the system allows customers to use its services without paying for them. The system must continue to cover the costs of services for which it is not getting paid. What if other customers stop paying? That means more costs for the system to cover.

Although assets and net income may show that the money is expected to come in, without pursuing delinquent accounts, the cash won't actually be there when it's needed. Bottom line: Keep a handle on delinquent accounts. Chapter 6 includes several examples of payment policies that you can enact at your utility.

## ACCOUNTS PAYABLE

The next thing you want to examine in a cash-flow statement is the line item "(Increase) Decrease in accounts payable."

To review, accounts payable is just the opposite of accounts receivable. Accounts payable is money your system owes to vendors.

Look again at the sample statement in Table 8. In comparing the accounts payable of the two years listed (2020 and 2021), what do you see? Did this line item increase or decrease? Similar to receivables, an increase in payables simply can be the result of a system experiencing significant growth, but it could also be the result of delaying payments to vendors.

## LONG-TERM DEBT

Sometimes also called "notes payable," long-term debt is a tell-all on the cash-flow statement. This line item can be found in Table 8 under the heading "Cash flows from financing activities." It is listed as "Retirement of long-term debt."

Compare your debt-retirement activities from the previous year to the current year. Were you able to reduce the long-term debt, or did your debt actually increase? If debt increased, make sure there is a reasonable explanation for the increase. Was it from growth, such as borrowing money to extend lines, upgrade the facility, or purchase equipment? Without a reasonable explanation for increased debt, an increase in this line item from one year to the next is a good indicator that you are not able to keep up with your system's cash-flow requirements.

## THE BOTTOM LINE—LITERALLY

Finally, look at the bottom of the cash-flow statement. In Table 8, the bottom shows the "Net increase (decrease) in cash." Is there more or less cash at the end of this year than at the end of the previous year?

An increase in receivables, along with an increase in payables and a decrease in cash, could be the result of normal operations. But it also could be worth questioning.

**TABLE 7—Sample Statement of Cash Flows for Anytown, USA**  
For years ending Dec. 31, 2021, and 2020

Cash Flows from Operating Activities	2021	2020
<b>Net Income (Loss)</b>	\$68,246	\$75,988
<b>Adjustments to reconcile change in net assets to net cash Provided by operating activities:</b>		
<b>Depreciation</b>	\$112,598	\$118,338
<b>(Increase) Decrease in accounts receivable</b>	5,014	(7,395)
<b>(Increase) Decrease in prepaid expenses</b>	(25)	(1,485)
<b>(Increase) Decrease in interest receivable</b>	0	(3,053)
<b>(Increase) Decrease in inventory</b>	1,054	6,938
<b>Increase (Decrease) in accrued expenses</b>	90	870
<b>Increase (Decrease) in payroll tax liabilities</b>	(321)	624
<b>Increase (Decrease) in accrued interest</b>	13,355	11,243
<b>Increase (Decrease) in meter deposits</b>	(1,098)	0
<b>Increase (Decrease) in accounts payable</b>	445	28
<b>Net cash used in investing activities</b>	\$199,358	\$201,096
<b>Cash flows from investing activities</b>		
<b>Purchase of property and equipment</b>	0	(19,857)
<b>Net cash used in investing activities</b>	0	(\$19,857)
<b>Cash flows from financing activities</b>		
<b>Retirement of long-term debt</b>	(54,238)	(37,106)
<b>Purchase of Securities</b>	(2,219)	0
<b>Sale of Securities</b>	100,000	0
<b>Net cash used in financing activities</b>	\$43,543	(\$37,106)

(DOLLAR VALUES ARE FOR ILLUSTRATION PURPOSES ONLY)

## FINANCIALS FOR LENDERS

If your utility has borrowed money, chances are your lender will require you to provide regular updates on your financial health. These lenders have specific requirements and templates for the financial statements that may differ from what you prepare. They may also require you to have an annual financial audit even if you are not otherwise required by your state, territory, or Tribal nation. This is especially true if you have borrowed money through governmental programs such as the USDA Water and Waste Disposal Loan and Grant program or the State Revolving Fund. RCAP's USDA Rural Utilities Service Borrower's Guide has detailed instructions on how to complete USDA's required financial forms: [rcap.org/wp-content/uploads/2021/11/RCAP\\_BorrowersGuide\\_March-2021\\_final.pdf](https://rcap.org/wp-content/uploads/2021/11/RCAP_BorrowersGuide_March-2021_final.pdf).

### Annual Financial Audit

The final step of your financial monitoring is ensuring that the year-end financial statements are accurate. An annual financial audit is an examination of a utility's financial statements by an independent party that is qualified to complete audits. The purpose of the audit is to determine whether your financial statements are accurate, to assess whether you have followed applicable financial laws and regulations, and to suggest corrections, as necessary.

Many utilities are required by state or territorial law to complete an annual audit. If you have borrowed funds for the utility, your lender may also require you to complete an annual financial audit. Even if this is not required, it is a prudent business practice for all water and wastewater utilities. Potential auditors should have a clear understanding of the system's business, references from other clients in the water or wastewater industry, resumes for personnel working on the audit, and a clean peer review letter. The peer review letter should show that the auditing firm has had its policies and procedures reviewed and that they adhere to industry standards.

The audit should be completed by a neutral third party outside of your utility, organization, or government. You begin the auditing process by releasing a request for proposals (RFP) to hire the auditing firm. When detailing the job of auditing your system, ask that the bid for the audit be sent in a separate, sealed envelope from the auditor's qualifications. Rank the auditors first by their qualifications, and then look at their bids. If the firm with the best qualifications is not the low bidder, you may have a chance to negotiate your final fee with that firm.

Many utilities hire an outside expert to compile their annual financial statements. The person who compiles the financial statements should not be the same person who audits the financial statements. Ideally, you would have one firm compile the statements

and a separate firm audit the statements. At the very least, you should have two different people complete these tasks if you are using the same firm for both services.

After the audit is completed, the auditor will issue an auditor opinion. This is the first page of

the full audit. An "unqualified opinion" or "clean opinion" is the best your system can receive. It means the auditor did not find any material misstatements in your system's financial records. The full audit report will include the main financial statements: the balance sheet, the income statement, and the cash-flow statement. It will also include notes to the financial statements.

The notes provide valuable information about the nature of operations and the balances shown in the financial statements. The auditor should present the full audit to the entire board and should be available to explain the numbers and to respond to questions. Remember, the auditor works for you.



# CHAPTER SIX

## Financial Policies and Procedures

The policies and procedures that you develop are a framework for the operation of your utility.

You are familiar with many of the essential policies necessary for effectively operating a system: customer service policies, standard operating policies, personnel policies, and many more. It is important for your utility to have financial management policies in place and in order.

On the following pages are a sample set of financial management policies for a water/wastewater utility. This sample set of policies is for illustration purposes only. Some of the requirements or procedures described in the sample policies may be covered in state, territorial, or Tribal statutes or in local ordinances, particularly if your utility is operated as a division of a public entity, such as a county or municipal government.

### IMPORTANT NOTES ABOUT WHAT FOLLOWS

The sample policies are not ready-to-use and should not be adopted or distributed as-is. They must be customized to fit your utility and your circumstances. You can change or add to these policies depending on your system's circumstances and requirements. Be sure to review them carefully and fill in all the blanks with the required information. Ensure that all the information is pertinent to your specific utility. Before adopting any financial policies, also be sure to check for items required by state/territorial/Tribal law, local ordinances, your system bylaws or charter, and documents relating to any loans or grants your system may have received.

The information contained herein is for informational purposes only as a service to the public and **is not legal advice or a substitute for legal counsel**. As legal advice must be tailored to the specific circumstances of each case, nothing provided herein should be used as a substitute for advice of competent counsel. RCAP, Inc. expressly disclaims all liability in respect to actions taken or not taken based on any or all of the contents of the sample policies.





# SAMPLE FINANCIAL MANAGEMENT POLICIES

## GENERAL POLICIES

### APPLICABILITY

Financial policies of the board of directors shall conform to applicable state statutes, local ordinances, and other legal obligations of the system. Any section or sections of these policies determined to be in conflict shall be null and void, without affecting the applicability of other sections and provisions.

### AUDIT REPORTS

Audit reports shall be prepared annually covering financial operations for the previous fiscal year. Audit reports shall be completed by an independent public accountant with experience in auditing similar organizations.

### BONDING

All persons having access to system funds or with responsibilities for the receipt, handling, or expenditure of funds, shall have fidelity bond coverage in an amount necessary to protect the financial assets of the system and in accordance with state/territorial/Tribal statutes and other legal requirements.

### CONFLICTS OF INTEREST

No member of the governing board may have any direct or indirect interest in any contract for goods or services which may be awarded by the system. No employee or member of the board of directors of the system may receive money for furnishing goods and/or services, installing utility services, or for the sale of materials to the system.

### ENTERPRISE ACCOUNTING

The system shall be operated as an enterprise. It is the policy of the board of directors that the system shall operate on a financially self-sustaining basis. The full cost of providing water/wastewater services to the public on a continual basis shall be recovered through user fees and charges established by the board of directors.

### FISCAL YEAR

The fiscal year of the \_\_\_\_\_ Water/Wastewater System shall be for a 12-month period, beginning on the \_\_\_\_\_ day of \_\_\_\_\_, and ending on the \_\_\_\_\_ day of \_\_\_\_\_ annually.

### GENERALLY ACCEPTED PRINCIPLES AND BASIS

It is the policy of the board of directors that financial affairs of the system be conducted according to generally accepted accounting principles (GAAP). The utility's financial accounting and reporting system will be conducted on an accrual basis.

### INSURANCE

Insurance coverage shall be maintained that is adequate and necessary to protect the system against potential financial losses.

### PURPOSE

The purpose of these policies is to provide a framework for the effective management and conduct of the financial affairs of the \_\_\_\_\_ Water/Wastewater System. These policies shall be reviewed periodically by the board of directors and may be amended as necessary by a majority vote of members.

## REVENUES

It is the policy of the board of directors that all revenues generated from customer user fees and charges of the system may be used only for expenses directly associated with the system's operation and maintenance, debt service, debt-service reserve, and other financial-reserve funds authorized by the board.

## PLANNING AND BUDGETING POLICIES

### BUDGET ADJUSTMENTS

Based on reviews of periodic financial reports, the board of directors shall make budget adjustments or amendments as necessary. Adjustments to an approved budget must be voted on by the board.

### BUDGET DEVELOPMENT

At least 30 days prior to the beginning of each fiscal year, the board of directors shall develop and adopt an annual revenue and expense budget for the operation of the system. The annual budget must show that anticipated revenues shall be sufficient to cover all operating expenses.

### BUDGET FORMAT

The budget format and expense and revenue line items shall conform to state/territorial/Tribal and/or federal requirements, if applicable. Each source of revenue and each category of expense shall be separately identified in detail sufficient to present an accurate picture of the system's financial condition.

### DEBT-SERVICE RESERVES

Debt-service reserve funds shall be established and maintained in a separate account in an amount consistent with requirements of the system's lenders.

### FINANCIAL RESERVES

It is the policy of the board of directors that, in order to maintain financial stability and self-sufficiency and to achieve both long- and short-term capital and operational needs into the future, the system shall maintain financial reserve funds. The financial reserve funds shall be used for:

- Debt-service reserve funds (DSRF) as may be required by lenders,
- Emergency funds for unforeseen breakdowns and system repairs,
- Equipment replacement of short-lived assets, and
- Planned system expansions or improvements consistent with long-range capital needs.

### FINANCIAL RESERVE ACCOUNTS/TRANSFERS

The financial reserves shall be maintained in separate accounts. All financial reserve funds shall be deposited in federally insured depositories. Expenditures or transfers from financial reserves shall be only with approval of the board of directors.

### LONG- AND SHORT-TERM PLANNING

The board of directors shall develop long- and short-term financial plans that forecast future capital and operational needs of the

system and that provide a strategy for financing those future needs. Operational, financial, and administrative staff of the system shall assist the board in developing these financial plans.

### **MONITORING BUDGETED REVENUES/EXPENDITURES**

Each month/quarter during the fiscal year, the board of directors shall receive and review a monthly/quarterly financial report from the system's accounting personnel. Monthly/quarterly financial reports shall contain:

- Current month's/quarter's revenues and expenditures,
- Actual year-to-date revenues and expenditures,
- Net income or loss,
- Beginning and ending balances for all operating and reserve accounts of the system, and
- Summary of past-due accounts receivable (number and total amount).

### **PAST-DUE, LATE, AND DELINQUENT BILLINGS**

In accordance with the customer service policies adopted by the board of directors, the amounts shown on monthly customer billings are due upon receipt. Any portion of the current amount due that is not paid by the \_\_\_\_\_ of the month will be considered late, and a late-payment charge of \$ \_\_\_\_\_ will be assessed. Any customer owing a past-due balance on the next monthly statement will be considered delinquent. Customers with delinquent balances will be subject to service cut-off if the balance is not paid in full by \_\_\_\_\_.

### **RATE AND USER-CHARGE REVIEW**

Rates and user charges shall be reviewed annually as part of the budgeting process. A comprehensive rate study shall be completed at least every five years or when major projects and/or expenses are anticipated to occur.

## **ACCOUNTING AND CASH MANAGEMENT POLICIES**

### **AUTHORIZATION TO INCUR FINANCIAL OBLIGATIONS**

Only the board of directors or persons so designated by the board shall have authorization to incur financial obligations on behalf of the system.

### **BANK ACCOUNTS**

The system shall maintain appropriate interest-bearing bank accounts for the operation of the system. Customer deposits shall be maintained in a separate interest-bearing account.

### **CAPITAL ASSETS**

Tangible personal property and/or equipment purchased and/or installed by the system, having a per-unit acquisition cost greater than \$ \_\_\_\_\_ and useful life of \_\_\_\_\_ months/years or more, will be logged into a "fixed-assets" inventory. Tangible property purchased by the system that does not meet this definition will be considered "supplies." Procedures for cataloging and safeguarding fixed-asset and supply inventories shall be implemented by appropriate system personnel.

### **CASH RECEIPTS**

All receipts shall be recorded in a cash-receipts journal then

deposited daily intact. Deposits shall be made by a person other than the individual who records the receipts received. Cash receipts shall not be used to pay expenses of the system nor to cash personal checks of employees or others.

### **CHART OF SYSTEM ACCOUNTS**

Financial record-keeping of the system shall use a standard, double-entry chart of accounts for the classification of all assets, liabilities, expenses, revenues, and other accounting transactions on a consistent basis.

### **DISBURSEMENT OF FUNDS**

All cash disbursements, including checks, automated clearing house (ACH) payments, wire transfers, bank drafts, etc., shall be evidenced by supporting documentation that is signed by two persons designated by the board of directors.

### **DISBURSEMENT OF FUNDS**

All funds shall be disbursed by order of the board of directors or its designee. The use and expenditure of system funds shall be restricted to approved purposes as defined by the system's annual budget.

### **FINANCIAL PROCEDURES MANUAL**

The board of directors shall insure that a financial procedures manual is developed for the system. The manual shall describe routine accounting procedures and practices of the system. At a minimum, the manual shall provide for:

- Routine procedures for the daily collection, recording, and deposit of receipts;
- Proper use of check registers, cash-receipts journals, payroll ledgers, monthly disbursement and collections summaries, and the general ledger;
- Proper operation of petty-cash account;
- Proper maintenance of individual customer accounts and records;
- Monthly bank statement reconciliation procedures; and
- Proper cross-referencing of all accounting transactions between journals, ledgers, and source documents.

The procedures manual shall contain financial and accounting forms and documents used by the system and instructions for how and when each form or document is used.

### **FINANCIAL RECORDS RETENTION**

All financial records, including original source documentation, purchase requisitions, canceled checks, and bank statements shall be retained by the system for a period of at least seven fiscal years prior to the current fiscal year, and/or as required by law.

### **MONTHLY REPORTING**

In addition to financial reports, the board shall receive monthly billing information, including total billing amount, number of customers, total gallons sold, total gallons produced, and similar relevant information.

### **PETTY CASH FUND**

The board of directors may allow for the creation of a petty cash fund, not to exceed \$ \_\_\_\_\_, for the purpose of making change for customer cash payments and small purchases of less than

\$ \_\_\_\_\_. The petty cash fund shall be subject to procedures for its operation which are contained in the financial procedures manual. The petty cash fund shall not be used to cash checks of employees or others.

**PRIORITY OF DISBURSEMENTS**

Priority of disbursements and payments from current revenues received by the system shall be in the following order or priority, unless otherwise ordered by the board of directors or by law:

- Payment of all payroll-related taxes or assessments
- Payment of debt-service expenses and required debt-service reserves
- Payment of operation and maintenance expenses of the system
- Payments to board-authorized financial reserve accounts (emergency reserves, capital improvements, or equipment-replacement reserves)

**SEPARATION OF DUTIES/RESPONSIBILITIES**

The board of directors shall assure that there is proper division of responsibility and function among persons who receive, deposit, account for, and expend funds in order to minimize the potential for loss, the unauthorized use of, or unauthorized disposition of system assets.

**SOURCE DOCUMENTATION**

Payment for goods, services, and expenses of the system’s operation shall be made from original invoices submitted for payment. Once paid, all invoices must be marked “Paid” and initialed to avoid duplicate payment. Properly completed, approved, and numbered purchase requisitions (or purchase orders) shall be used for non-routine expenses prior to actual disbursement of funds.

**PURCHASING POLICIES AND PURCHASE REQUISITION SYSTEM**

**BOARD OF DIRECTORS APPROVAL**

Any single purchase of goods/services by the system that exceeds \$ \_\_\_\_\_ must be individually approved by the board. Purchase requests for such purchases must contain written quotations in accordance with the above procedures.

**CONFLICT(S) OF INTEREST**

Businesses or firms in which board members have a financial interest will not normally be considered as qualified vendors for supplying goods or services to the system. If, under extraordinary circumstances, the system must secure goods/services from such firms or business, they shall not receive preferential treatment in the procurement process. The reasons for each such procurement from such a firm shall be individually documented on any purchase requisition and must be in accordance with applicable state/territorial/Tribal statutes. Actual or perceived conflicts of interest shall be subject to full disclosure requirements in the system’s financial statements.

**EMERGENCY PURCHASES**

When necessary to affect emergency repairs and/or equipment replacement to restore or maintain services, the requirements for bids or price quotations, oral or written, may be waived. Emergency purchases shall be documented on a purchase

requisition with a written explanation of the emergency nature of the repairs within two working days of the repair.

**PURCHASE REQUISITIONS**

A properly completed and approved purchase requisition (purchase order) shall be required prior to payment for all expenses and purchases except routine expenses and purchases. “Routine” expenses and purchases are defined as regularly scheduled or incurred expenses such as payroll expenses, utilities, telephone, etc.

**PURCHASING POLICY**

It is the policy of the board of directors that the purchase of goods and services shall be on a competitive and “least-cost” basis. Depending on the nature of the goods/services to be acquired, however, the board reserves the right to consider other factors aside from cost in the final procurement decision. Such factors may include method and terms of payment, service availability, warranties and guarantees, delivery and set-up charges, operational expense, and reliability.

**Sample Procurement Schedule**

Value of item(s) to be procured	Method of procurement/purchase
\$0 to \$500	Open-market purchase
\$500 to \$1,000	At least 3 oral quotations received prior to purchase
\$1,000 to \$5,000	At least 3 written quotations received prior to purchase
Over \$5,000	Sealed competitive bids from qualified vendors

**PURCHASING PROCEDURES**

The following table indicates the proper procedure for procurement and purchasing for most goods/services to be used by the system.

**RELATION TO BUDGET**

All purchases of goods and services are restricted to approved purposes as defined in the annual budget. Purchases of a single item or service, or the single procurement of a group of related items or services, the total of which exceeds \$ \_\_\_\_\_, shall be identified specifically in the annual budget.

**TRADE ACCOUNTS**

The establishment of trade accounts (charge accounts) shall be only by the board of directors’ approval. Monthly charge-account statements shall be reconciled to the original invoices and the general ledger within three working days after the receipt of the statements and prior to payment.

**COMPENSATION AND PAYROLL POLICIES**

**ANNUAL WAGE/SALARY REVIEW**

The board of directors or supervisory personnel will conduct annual wage/salary reviews with each employee of the system. Decisions



concerning possible wage or salary rate changes shall be based on job performance, length of service, and budgetary considerations. All pay changes for employees shall be approved in writing by the board prior to submission to accounting personnel.

### **COMPENSATION POLICY**

It is the policy of the board of directors that compensation shall be paid that is non-discriminatory and that is competitive with rates paid for similar jobs by similar utilities in the area. All compensation decisions, however, must take into consideration the economic status of the system. The board may, from time to time, conduct surveys of other utilities to ascertain whether adjustments in wage or salary levels should be made.

### **OVERTIME HOURS**

Overtime hours are all hours worked by a non-exempt employee more than 40 hours in any work week. Non-exempt employees shall receive compensation at the rate of 1.5 times their regular pay for each hour of overtime worked. All employees must receive prior approval for working overtime hours unless otherwise provided by the board of directors. Exempt employees shall not receive overtime but may receive compensatory time off for all hours worked more than 40 hours. (Non-exempt employees are those employees covered by the wage/hour provisions of the Fair Labor Standards Act.)

### **PAY PERIODS**

The pay period for the system is [indicate one]: monthly/semi-monthly/bi-weekly/weekly, ending on the \_\_\_\_\_ day and the \_\_\_\_\_ day of each week/month.

### **PAY PROCEDURES**

The system shall compensate employees by check or direct deposit on a regular basis and in such a manner that the amount, method, and timing of payments comply with all applicable laws and regulations. Should a payday fall on a weekend (Saturday or Sunday), employees will receive their pay on the last working day prior to the regular payday. The system will not provide advance payment of wages and salaries to employees.

### **TIME AND ACTIVITY REPORTS**

In order to be paid, an employee must submit individual time reports showing the daily hours worked for each workweek. Time reports must provide sufficient detail to allow proper payment of each employee—including starting and quitting times, lunch-break time, unworked time for which pay is entitled (paid vacation, paid absences), and overtime hours, if any. All time records shall be checked and approved prior to payment. Falsifying any time record is prohibited and will be grounds for disciplinary action, including termination.

### **WORKWEEK/WORKDAY**

The normal workweek of the system is Sunday through Saturday, beginning and ending at midnight on Saturday. The normal workweek consists of 40 hours. The normal workday is 8 consecutive hours of work, with an unpaid meal period and break periods.

# **FINANCIAL PROCEDURES MANUAL**

One of the most vital documents relating to the financial management of your utility is the financial procedures manual. This important manual is individualized to your specific utility and describes in detail how and when major financial tasks will be carried out and which personnel are responsible for their completion. For example:

## **ACCOUNTS RECEIVABLE**

- How are monthly billings accomplished, by whom, and by when?
- How are monthly payments collected, receipted, and posted, by whom, and by when?
- How are individual customer accounts and charges maintained?
- How are cash payments handled?
- How are payments deposited with financial institutions, by whom, and how often?
- How are billing adjustments/mistakes resolved, under what circumstances, and by whom?

## **ACCOUNTS PAYABLE**

- Who receives and tracks vendor invoices?
- How are invoices approved and processed for payment?
- How are goods and services ordered and tracked?
- How are goods or services that have been ordered verified as received?
- How are fund disbursements coded, logged, and verified against the approved budget?

## **RECONCILIATION PROCEDURES**

- How are billings, receipts, and payments reconciled with ledgers and accounts of the system?
- How are daily and monthly financial transaction reports reconciled with bank statements?
- How are cash transactions and petty cash funds reconciled, by whom, and how often?

## **FINANCIAL REPORTING**

- How will financial reporting (income statements, balance sheets, etc.) be accomplished, by whom, and by when?
- How are various IRS reporting and record-keeping requirements going to be met? What about withholding tax reports, sales tax reports, and unemployment tax and worker's compensation reports?

A financial procedures manual should describe in detail how these functions and tasks will be accomplished. Staff turnover and changes in job responsibilities can affect any utility at any time. If necessary, contact your system accountant or auditing firm for assistance in developing your written financial procedures.

# CHAPTER SEVEN

## Maintaining Sustainable Water and Wastewater Services

A community's water or wastewater facility is an essential component of the overall well-being and quality of life of a rural community. Safe, affordable drinking water and sanitary wastewater are vital to the public's health and the environment. Water and wastewater services are building blocks for community growth and development, economic development opportunity, and job creation and retention. As a utility leader, you have a responsibility to ensure that the system is properly funded not just today, but for years to come.

For many small towns and rural communities, the water supply and/or wastewater disposal facility may be the largest single capital investment in the community. From this standpoint alone, it is critically important to preserve the value of this infrastructure investment. Considering the enormous public benefit of water and wastewater utilities for residents of a community, it is of the highest importance that decision-makers and managers ensure that water and waste facilities are operated as economically and financially sustainable enterprises. This chapter provides additional measures and actions that can be employed to help maintain financially viable and sustainable water and wastewater services.

Again, being "financially sustainable" means you are selling water and/or wastewater disposal services to your customers at a rate that consistently generates enough revenue to meet all of your expenses, both short- and long-term. In this chapter there are recommendations on financial and managerial best practices to help move your utility toward financial sustainability.

### Review Customer Rates Annually

Customer rates and fees should be reviewed every year to ensure that projected revenues will be sufficient to cover all anticipated expenses. The best time to review user rates is during the annual budget-preparation process. The projected expense portion of the annual budget should be realistic in stating the full cost of running the system, including operations and maintenance expenses plus needed capital expenditures, annual debt service payments, and funding of appropriate reserves. While rates do not need to be changed annually, it is typical to need to adjust rates every few years at the most because the cost of goods and services is constantly going up.

It may be tempting to put off a rate increase for as long as possible, but this does a disservice to your customers. Allowing very long intervals between rate adjustments usually leads to the necessity for a major increase at some point, and, as a result,

"customer rate shock" occurs. This can make water and wastewater service unaffordable for the most vulnerable people in your community. Small, regular rate increases are generally easier for customers to handle and to accept.

Your rates should be based on your projected revenues and expenses, as outlined in Chapter 3. That includes both operating expenses and future capital needs. Developing an accurate asset management plan and capital improvement plan (CIP) are essential steps in rate setting and in sustainable financial management.

Also, don't forget about the other types of fees that you charge to customers. Your connection fees should represent the actual cost of adding a new home or business to your system. That may be more than the cost of the meter installation. And you should consider how you want new customers to contribute to the cost of the infrastructure they are now benefiting from that has been paid by existing and past customers.

Likewise, the penalties you charge to customers for late payments and disconnections/reconnections should reflect your actual costs for staffing and supplies.

### Increase Bill Payment Rates

Your rates are only effective when customers pay their bills on time and in full. Improving a system's bill collection rate is another way to increase revenue without raising rates. Your system should have written customer service policies regarding when bills are considered past due, when disconnections will occur due to non-payment, and what penalties will be assessed. If your collection and shut-off policies are not being strictly enforced, your system is losing revenue. The customers who pay on time are subsidizing late payers, which isn't fair.

If you have a large amount of accounts receivable, you should consider reducing the amount of time that customers are given to pay their bills. Also, your penalty for late payments is perhaps not high enough to encourage customers to pay on time. Ideally, you should strive to have a 100% collection rate. Systems are encouraged to review collection policies and practices prior to making rate adjustments.

### Reduce Costs

Proper financial management also includes opportunities to reduce costs. Three primary areas to focus on are water loss, energy efficiency, and the cost of borrowing.



Not every gallon produced by your water system or delivered to a customer is paid for. Minimizing these unpaid gallons will control costs and boost revenues without needing to raise rates. If you know how much water is coming from your treatment facility and if you can determine how much water your customers are using, the difference between the two amounts is non-revenue water. Non-revenue water can be caused by real water losses such as leaks or tank overflows, or it can be caused by apparent water losses such as meter under-reading. Measuring non-revenue water is achieved through a water audit. Water audits can be invaluable in controlling wasted water, thereby controlling costs. Contact a technical assistance provider if you have concerns over water loss or leak detection.

Another potential area of cost savings is energy use. For most water and wastewater systems, energy is the largest cost that can be controlled while still offering the same level of service. You should determine whether you can achieve any cost savings through energy management, such as installing energy-efficient pumps, motors, and equipment or generating electricity on-site. Utilities can also save money by ensuring they are on the proper electric rate and filling storage tanks during cheaper, off-peak hours.

The final potential area of cost savings is ensuring that your utility is borrowing money at the lowest possible rate. Subsidized federal lending programs such as the State Revolving Fund and the USDA Water and Waste Disposal Loan and Grant program often offer below-market interest rates and potential principal forgiveness for small water and wastewater systems.

## Become a More Successful and Efficient Service Provider

Sustainable financial management is part of a broader goal of managing your utility effectively. Effective utility management (EUM) practices are the foundation for building and sustaining the technical, managerial, and financial capacity of drinking water and wastewater systems. EUM includes nine other key management areas in addition to financial viability:

- Product quality
- Customer satisfaction
- Employee and leadership development
- Operational optimization
- Infrastructure stability
- Operational resiliency
- Community sustainability and economic development
- Water resource adequacy
- Stakeholder understanding and support

These 10 areas are interconnected. Making improvements in any one area often improves other areas as well.

## Plan Proactively for Staffing Changes

Over time, you and your colleagues will build up expertise on how to manage the utility's finances. The annual budget process and tracking your financial performance will become easier and easier, and the entire process will become more efficient.

One day, you or your colleagues will leave the utility. You may retire, or take another job, or choose to leave for family reasons. What will happen to all of the knowledge and procedures you have built up over time? Who will replace you?

It is very common for the procedures used to develop the annual budget to exist only in the head of the person who prepares the

## WATER AUDITS

The International Water Association (IWA) and American Water Works Association (AWWA) Water Audit Method is the accepted industry standard for measuring non-revenue water. AWWA offers Free Water Audit Software© to all water systems to calculate non-revenue water. This Excel tool is available for download at [awwa.org/Resources-Tools/Resource-Topics/Water-Loss-Control](http://awwa.org/Resources-Tools/Resource-Topics/Water-Loss-Control).

## A RESOURCE FOR BORROWERS

RCAP has published *USDA Rural Utilities Service Borrower's Guide: A How-to for Water and Wastewater Loans from USDA Rural Development* to help small communities obtain and manage funding from USDA. The guide includes a description of basic requirements for USDA financing, guidelines for meeting borrower responsibilities, and instructions for preparing and submitting required management reports. The free guide is available for download at [rcap.org/resource/usda-rural-utilities-service-borrowers-guide-a-how-to-for-water-and-wastewater-loans-from-usda-rural-development](http://rcap.org/resource/usda-rural-utilities-service-borrowers-guide-a-how-to-for-water-and-wastewater-loans-from-usda-rural-development).

## RESOURCES FOR EFFECTIVE UTILITY MANAGEMENT

EPA's Effective Utility Management (EUM) Initiative is based on the Ten Attributes of Effectively Managed Water Sector Utilities. Their resources include a primer on the attributes, a roadmap, case studies, a guidebook for small utilities, and a workshop to help utilities assess their strengths and challenges and create an action plan for addressing these areas over time: [epa.gov/sustainable-water-infrastructure/effective-water-utility-management-practices](http://epa.gov/sustainable-water-infrastructure/effective-water-utility-management-practices).

USDA and EPA created *Workshop in a Box: Sustainable Management of Rural and Small Systems Workshops*, which contains a series of materials and instructions to help utilities assess their operations based on key management areas that align closely with the Ten Attributes: [rd.usda.gov/programs-services/services/sustainable-management-tools](http://rd.usda.gov/programs-services/services/sustainable-management-tools).

budget every year. If that person leaves staff without communicating those procedures to his or her successor, the utility is more likely to budget incorrectly, which can endanger operations. The best practice is to develop written standard operating procedures for budgeting, financial monitoring, and financial reporting. That way, any new staff—or even an outside contractor—can follow the step-by-step instructions to continue proper financial management.

It is also a best practice to use succession planning to prepare for staff departures, especially due to retirement. We talk a lot in the utility world about succession planning for field staff and for utility managers, but it is equally important for financial staff. You may choose to grow the next financial leaders from within, or you may be prepared to hire an outside person long before your key staff person retires, allowing for overlap and knowledge transfer. That way, your utility does not have a gap without financial expertise.

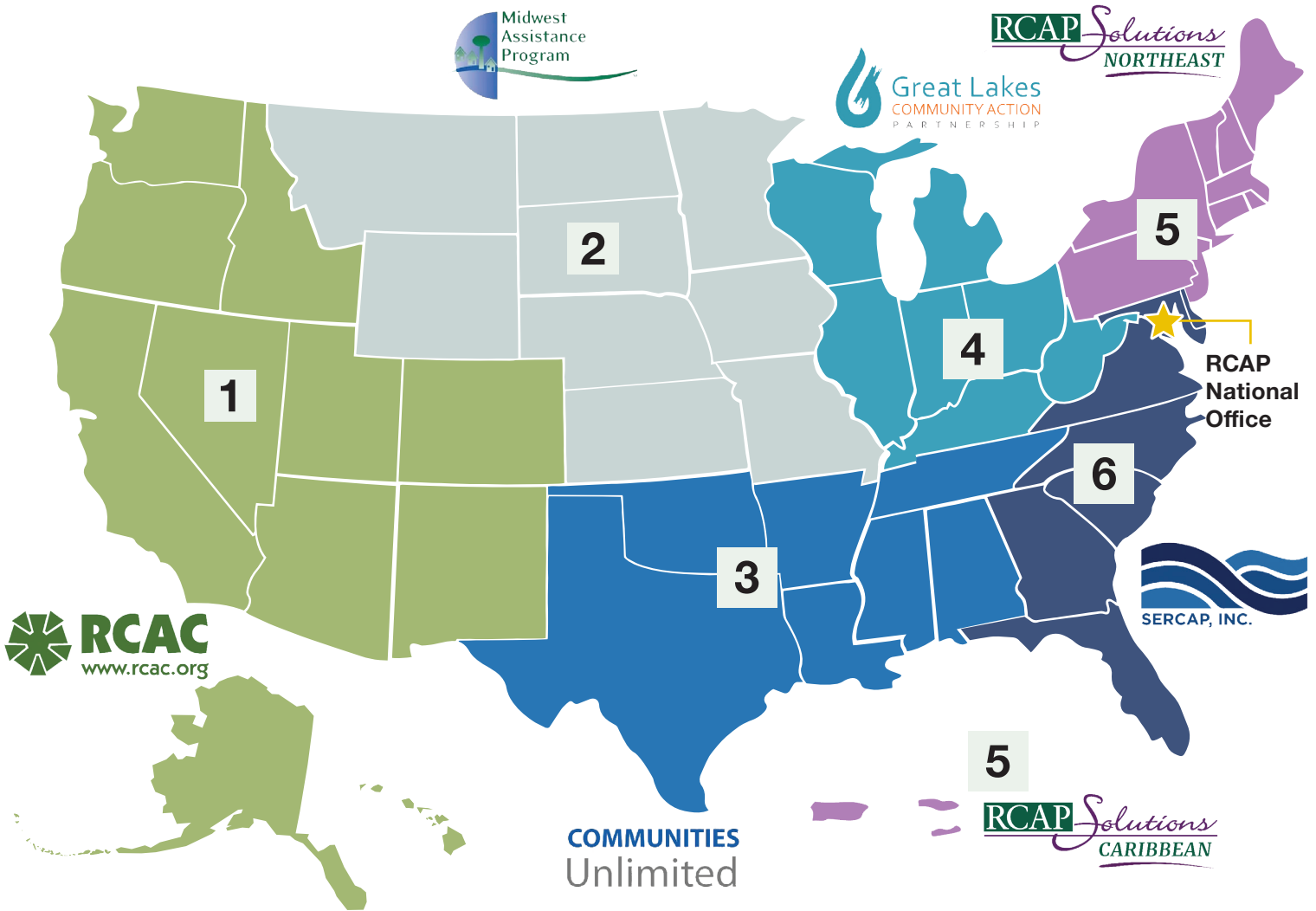
## Need for Patience and Assistance

Instituting best practices and moving toward becoming a financially sustainable utility takes time, resources, and expertise. Many utility leaders step into situations where the challenges seem numerous and daunting because systems have been mismanaged in the past. Don't despair! You can improve the sustainability of your utility over time, and taking steps toward any of the best practices outlined in this guidebook will help. Have patience and remain committed to the process. Most of all, don't feel like you have to undertake this work alone. Utilize existing resources. And call on technical assistance providers, like RCAP, for help. Achieving financial sustainability will ensure that your utility can continue to serve your community for generations to come.



# Vocabulary

TERM	DEFINITION
<b>CASH AND CASH EQUIVALENTS</b>	include the amount of money currently available in the system’s demand accounts. Cash equivalents include any security that has a maturity date of less than 90 days. The sample balance sheet includes a certificate of deposit in the cash and cash equivalents line that will mature on February 28, 2022, less than 90 days from the balance sheet’s statement date of December 31, 2021.
<b>ACCOUNTS RECEIVABLE</b>	is money owed to the system. This includes things like outstanding water bills, connection fees owed to the system, and reconnection fees.
<b>PREPAID EXPENSES</b>	are expenses paid in advance—for example, an insurance policy that is purchased and its annual premium is paid up front. The value of the insurance premium will be recorded as a prepaid asset until the premium is used. In the balance sheet example, prepaids of \$4,982 are listed, which is the result of a property insurance premium paid on December 15, 2021. The insurance policy is effective from January 1, 2022, through December 31, 2022. Because the system will receive the benefit of this policy during the next fiscal year (2022), the amount paid is considered an asset on the effective date of the example balance sheet—December 31, 2021.
<b>SHORT-TERM INVESTMENTS</b>	include investments with maturities more than 90 days from the balance sheet’s date but less than one year from the balance sheet’s date. On the sample balance sheet, the short-term investments include certificates of deposit with maturity dates of July 8, 2022, and December 26, 2022.
<b>INVENTORY</b>	includes the value of products related to the business that are, or will become, available for use or sale within the next year, such as new meters, pipe, equipment, and replacement parts.



# Rural Community Assistance Partnership

We envision a resilient, equitable and thriving rural America.

The Rural Community Assistance Partnership (RCAP) is a national network of nonprofit organizations that works with rural communities across the country to elevate rural voices and build local capacity to improve quality of life, starting at the tap. Through RCAP's regional partners, more than 300 technical assistance providers (TAPs) support communities in building their own capacity through technical assistance and training focused on access to safe drinking water, sanitary wastewater, solid waste, and economic development. RCAP works across every U.S. state, the U.S. territories, and tribal land

To learn more, visit [rcap.org](http://rcap.org).

## 1. Western RCAP

Rural Community Assistance Corporation (RCAC)  
916.447.2854  
[rcac.org](http://rcac.org)

## 2. Midwestern RCAP

Midwest Assistance Program (MAP)  
660.562.2575  
[map-inc.org](http://map-inc.org)

## 3. Southern RCAP

Communities Unlimited (CU)  
479.443.2700  
[communitiesu.org](http://communitiesu.org)

## 4. Great Lakes RCAP

Great Lakes Community Action Partnership (GLCAP)  
800.775.9767  
[glcap.org](http://glcap.org)

## 5. Northeastern and Caribbean RCAP

RCAP Solutions  
800.488.1969  
[rcapsolutions.org](http://rcapsolutions.org)

## 6. Southeastern RCAP

Southeast Rural Community Assistance Project (SERCAP)  
866.928.3731  
[sercap.org](http://sercap.org)

