The Basics of Financial Management
for Small-community Utilities

RCAP

RURAL COMMUNITY ASSISTANCE PARTNERSHIP

an equal opportunity provider and employer

This guide was written by Community Resource Group, the Southern RCAP, on behalf of Rural Community Assistance Partnership, Inc.

The entire contents of this guide are available on the RCAP website at www.rcap.org

This material is based upon work supported under a grant by the Utilities Programs, United States Department of Agriculture. Any opinions, findings, and conclusions or recommendations expressed in this material are solely the responsibility of the authors and do not necessarily represent the official views of the Utilities Programs.

The Basics of Financial Management
for Small-community Utilities

Rural Community Assistance Partnership, Inc.

1701 K St. NW, Suite 700
Washington, DC 20006
202/408-1273
800/321-7227 (toll-free)
info@rcap.org

www.rcap.org

Table of Contents

INTRODUCTION 1

CHAPTER 1: The framework for financial management 3

Sample financial-management policies

- General policies 4
- Planning and budgeting policies 5
- Accounting and cash-management policies 6
- Purchasing policies and purchase-requisition system 8
- Compensation and payroll policies 9

Financial Procedures Manual 10

CHAPTER 2: Planning for your system's financial future 11

CHAPTER 3: Annual operating budgets 14

CHAPTER 4: Oversight and monitoring of financial performance 19

Monitoring the annual budget 19

Standard financial statements 21

- The balance sheet 21
- The income statement 29
- The cash-flow statement 32

CHAPTER 5: Maintaining sustainable water and waste-disposal services 35

Introduction

Overview of financial management

The term *financial management* simply means effectively managing your utility's financial functions. The financial functions of your utility include accounting, your 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 enough to meet the system's future needs, such as emergency outages, equipment replacement and repair, and facility improvements.

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 agencies that have primary enforcement responsibilities for implementation of the SDWA (called "primacy agencies") were also required to establish and implement state capacity-development strategies. These strategies were designed to insure 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.

Following the passage of the Safe Drinking Water Act amendments, there has been a much greater emphasis on financial sustainability of small utilities, along with numerous tools and resources to help utilities achieve greater financial stability. One factor driving this emphasis is fewer resources, namely grants and loans, for utilities to help them maintain their compliance with regulations or for other projects. Governments at all levels will be expecting utilities to be more financial 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 waste-disposal services, including all operating expenses, debt service and reserve funds for equipment replacement and future improvements. 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."

Responsibilities of a utility's governing body and management

As a member of the board or governing body of your utility or as your utility's manager, 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
- 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 a deeper 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-related services where you live.

Carrying out these responsibilities and roles is not always easy, and it is acceptable to ask questions or seek training or additional skills. This guide is one resource to help you. The Rural Community Assistance Partnership (RCAP) has other printed guides for utility boards and management and field staff who provide in-person, customized assistance with the management of your utility. See the inside back cover for contact information for RCAP, or visit *www.rcap.org* for more information, including how to obtain other publications like this one.

Chapter 1
The framework for financial management

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. 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 statutes or 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 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.

Go online to get text of policies

The text of the sample set of financial-management policies is available online on the RCAP website at *www.rcap.org/finmgmtguide*. On that page, you can download each set of policies as a Microsoft Word document that you can then save and eidt (fill in the blanks, change items and wording, add clauses, etc.) and adapt for your situation.

Sample financial-management policies

Financial-management Policies for the _____ Water/Wastewater System

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.

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.

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.

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.

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.

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.

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.

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 statutes and other legal requirements.

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

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.

Planning and budgeting policies

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.

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 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.

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.

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 _____.

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
- planned system expansions or improvements consistent with long-range capital needs

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-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.

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

- current month'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
- summary of past-due accounts receivable (number and total amount)

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.

Accounting and cash-management policies

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.

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:

1. payment of all payroll-related taxes or assessments
2. payment of debt-service expenses and required debt-service reserves
3. payment of operation and maintenance expenses of the system
4. payments to board-authorized financial-reserve accounts (emergency reserves, capital improvements, or equipment-replacement reserves)

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.

Chart of system accounts: Financial recordkeeping 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.

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.

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.

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
- the 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
- 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.

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.

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.

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.

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.

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.

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.

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

Purchasing policies and purchase-requisition system

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.

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.).

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.

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

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

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.

Trade accounts: The establishment of trade accounts (charge accounts) shall be only by board of directors approval. Monthly charge-account statements shall be reconciled to the original invoices and the general ledger within 3 working days after the receipt of the statements and prior to payment.

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 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 2 working days of the repair.

Compensation and payroll policies

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 if adjustments in wage or salary levels should be made.

Pay procedures: The system shall compensate employees by check or direct-deposit on a regular basis and in such a manner so 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 advanced payment of wages and salaries to employees.

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.

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.

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, un-worked 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.

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.)

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.

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, 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 2
Planning for your system's financial future

One of the most important responsibilities as the manager or member of the board of directors of your utility is planning for the financial future of your system.

A financial plan is basically a two-part process composed of:
- forecasting the utility's future financial needs (operating and capital needs)
- determining how those future financial needs will be met

Capital-improvements planning

A capital-improvements plan (called a CIP for short or sometimes called a long-range plan) is a written document that specifies:
- what facility improvements will be needed in the future
- when the improvements will be needed and when they will be undertaken
- how much the improvements will cost
- what financing options are available for the improvements

Covering at least a ten-year period of time into the future, a capital-improvements plan will help your utility's board and management make informed decisions about rate setting, future debt-service requirements, and future revenue requirements.

In preparing a capital-improvements plan, 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 demand of your customers?
- 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?

Use the assistance of a consulting engineer to prepare cost estimates for major capital-improvement projects that might be needed in the future.

Separating capital needs and projects

There is a tendency to talk of capital-improvements planning in terms of short-term and long-term needs. A more practical approach for separating capital-improvements projects is to develop separate schedules of improvement projects based on how those projects will be financed, such as:

- improvements that can be undertaken and completed with the utility's own financial resources
- major capital improvements that can be completed only with outside financial assistance (bond issues, loans, grants, etc.)

The role of financial reserve accounts

The purpose of financial-reserve accounts is to hold funds that are dedicated for specific uses. Your financial-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** previously mentioned in the **Sample Financial-Management Policies** section of Chapter 1):

1. **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 percent of the annual principal and interest payment, accumulated over a ten-year period.)
2. **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 fund 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 could be.
3. **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.)
4. **(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.)

Planned repair and replacement

A planned equipment replacement, repair and rehabilitation program is an example of how your utility can use its own financial resources to fund minor capital improvements.

Through a planning process sometimes referred to as "asset management"[1], decision-makers can identify, prioritize and schedule the repair, replacement or rehabilitation of critical system components. The cost of completing these types of improvements would be funded through an equipment-repair/replacement reserve. An equipment repair and replacement program is particularly important for replacing critical assets with a useful and serviceable life that is much shorter than the entire system.

1 The Environmental Protection Agency has numerous publications, tools, and resources on asset management. For more information, visit the EPA Small Systems website at *http://water.epa.gov/type/drink/pws/smallsystems/managementhelp.cfm*

The following is an example of an equipment-repair and -replacement schedule:

Table 1: Sample equipment-repair and -replacement schedule

For year beginning: January 1, 2012

Item/ description of work	Estimated useful life or frequency	Estimated total cost	Planned year of replacement or repair	Funds needed annually for repair and replacement reserve
Clean and paint storage tank #1	Every 10 years	$50,000	2015	$5,000
Replace well pump #1	8-10 years	$12,000	2016	$1,500
Replace well pump #2	8-10 years	$12,000	2016	$1,500
Replace electrical controls	10 years	$10,000	2016	$1,000
Meter replacement program	15 years	200 meters/year at $200 per meter	Beginning 2013	$4,000
Clean and paint storage tank #2	Every 10 years	$50,000	2020	$5,000
			Total annual reserve amount	**$18,000**

(Dollar values are for purposes of illustration only)

Chapter 3
Annual operating budgets

Unlike the planned-repair and -replacement budget or the major capital-improvements 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 simply a one-year forecast of your utility's expected revenues and expenses.

The budget helps your utility's decision-makers keep adequate control of the finances and provides adequate funding to the highest-priority areas of system. The operating budget may be a separate document, but it should be compatible with your utility's long-range financial plans.

Preparing a budget

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 utility's financial records are critical for creating a budget. The utility's management should take into consideration:

- previous expenses from the past 2 to 3 fiscal years
- current debt-service requirements
- any unplanned "emergency" expenses that occurred within the past several years
- revenues from customer billings and other sources of income for the past several years
- required "reserve" levels necessary for the coming year

In addition to previous years' revenue and expense records for the utility, consideration must be given to *anticipated changes* to those revenues/expenses during the coming year, including:

- anticipated changes in operating expenses, such as wage/salary increases, new hires, changes in costs of materials, supplies, transportation, electricity, and other utilities, as well as adjustments for inflation
- changes in debt-service expenses, including anticipated new debt
- changes in revenues due to expected rate and fee adjustments, growth or decline in the customer base, etc.
- expected transfers to/from financial reserves

Your annual operating budget should have budget categories that match the revenues and expenses in your utility's chart of accounts.

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.

Finally, your annual budget needs to be "balanced." A balanced budget is a budget in which anticipated expenses *do not* exceed anticipated revenues. If expenses for operations, debt service and transfers to reserves exceed your revenue, it is time to look at a rate adjustment.

In Table 2: Budget Projection, on page 16, which is for a fictional utility, the actual revenues and expenses from previous years (2009 and 2010) and current budget year (2011) are compared. In columns E and F, the differences among 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 (.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 2009 through 2011 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.

In column G, the FY (fiscal year) 2012 projected budget numbers have been prepared. The governing board and management of this example utility have proposed a water rate increase of 2.5% for the 2012 fiscal year. As a result, revenues from water sales will increase from $665,000 in 2011 to $681,625 in 2012. Net income for the 2012 fiscal year is projected to increase from $59,871 in 2011 to $73,688 in 2012.

In Table 3: Projected Budget, FY 2012, on page 17, the budget for the fiscal year is presented for final adoption. In addition to the projected budget numbers and budget categories, Table 3 lists the "assumptions" that were made in preparing the budget. The primary assumptions that were made include a 2.5% average water-rate increase for the year and that all operating expenses would remain approximately the same as they were in 2011.

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 4: Projected Cash-flow Statement, FY 2012, on page 18, 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 Table 4, the projected cash-flow statement indicates that the utility will have a positive cash flow during FY 2012. The ending cash balance will be greater than the beginning cash balance by a total of $105,688.

Although it is not required, the bottom of Table 4 illustrates how the projected $105,688 in additional income will be distributed among the operating and reserve accounts during fiscal year 2012.

Table 2: Budget Projection

A	B	C	D	E	F	G
Revenue	**Actual 2009**	**Actual 2010**	**Current Year 2011 Budgeted**	**3-yr Diff + or -**	**% Diff 3-year Period**	**Projected 2012 Budget***
Water Sales	665,091	661,363	665,000	-91		681,625
Misc. Construction & Meter Conn.	10,831	19,293	12000	1,169		12,000
Membership Fees Received	1,305	1,200	1000	-305		1,000
Total Revenue	**$677,227**	**$681,856**	**$678,000**	**$773**	**0.11%**	**$694,625**
Operating Expenses						
Salaries & Fringe Benefits	153,700	180,381	181,500	27,800		184,000
Depreciation Expense	118,338	112,598	115000	-3,338		115,000
Service Supplies	70,555	61,460	60000	-10,555		60,000
Electricity & Utilities	40,634	45,647	45000	4,366		45,000
Insurance	33,702	40,786	40000	6,298		40,000
Contract Labor	29,484	35,545	32000	2,516		32,000
System Repair & Maintenance	19,498	24,816	22500	3,002		24,000
Taxes & Licenses	17,482	16,696	17000	-482		17,500
Fuel & Oil	11,990	13,408	13500	1,510		13,500
Telephone	7,761	9,701	9500	1,739		9,500
Bad-debt Expense	2,663	6,646	4000	1,337		4,000
Legal & Accounting	5,585	4,829	5000	-585		5,000
Miscellaneous	4,294	4,385	4300	6		4,300
Postage	4,659	4,374	4500	-159		4,500
Office Expenses	3,699	3,320	3200	-499		3,200
Continuing Education	3,603	2,913	3000	-603		3,000
Uniforms	3,226	2,841	3000	-226		3,000
Testing & Analysis	2,941	2,662	3000	59		3,500
Truck Expense	4,452	2,094	3000	-1,452		3,000
Bank Charges	90	132	150	60		150
Total Operating Expenses	**$538,356**	**$575,234**	**$569,150**	**30,794**	**5.72%**	**$574,150**
NET Operating Income (LOSS)	**$138,871**	**$106,622**	**$108,850**	**($30,021)**	**-21.62%**	**$120,475**
Other Income & Expenses						
Interest Income	12,230	20,000	18,500	6,270		$18,000
Gain on Sale of Equipment	0	13,295	750	750		0
Interest Expenses	-75,113	-71,671	-68,229	6,884		-64,787
Total Other Income & Expenses	**-62,883**	**-38,376**	**-48,979**			**-46,787**
NET INCOME (LOSS)	**$75,988**	**$68,246**	**$59,871**	**($16,117)**	**-21.21%**	**$73,688**
* FY 2012 budget projects a 2.5% water-rate increase						

Table 3: Projected Budget 2012

Revenue	**Projected 2012 Budget***	Primary Budget Assumptions
Water Sales	681,625	*2.5% avg water-rate increase
Misc. Construction & Meter Conn.	12,000	
Membership Fees Received	1,000	
Total Revenue	**$694,625**	
Operating Expenses		
Salaries & Fringe Benefits	184,000	Operating expense approximates 2011
Depreciation Expense	115,000	Operating expense approximates 2011
Service Supplies	60,000	Operating expense approximates 2011
Electricity & Utilities	45,000	Operating expense approximates 2011
Insurance	40,000	Operating expense approximates 2011
Contract Labor	32,000	Operating expense approximates 2011
System Repair & Maintenance	24,000	Operating expense approximates 2011
Taxes and Licenses	17,500	Operating expense approximates 2011
Fuel & Oil	13,500	Operating expense approximates 2011
Telephone	9,500	Operating expense approximates 2011
Bad-debt Expense	4,000	Operating expense approximates 2011
Legal & Accounting	5,000	Operating expense approximates 2011
Miscellaneous	4,300	Operating expense approximates 2011
Postage	4,500	Operating expense approximates 2011
Office Expenses	3,200	Operating expense approximates 2011
Continuing Education	3,000	Operating expense approximates 2011
Uniforms	3,000	Operating expense approximates 2011
Testing & Analysis	3,500	Operating expense approximates 2011
Truck Expense	3,000	Operating expense approximates 2011
Bank Charges	150	Operating expense approximates 2011
Total Operating Expenses	**$574,150**	
NET Operating Income (LOSS)	**$120,475**	
Other Income & Expenses		
Interest Income	$18,000	
Gain on Sale of Equipment	0	
Interest Expenses	-64,787	
Total Other Income & Expenses	**-46,787**	
NET INCOME (LOSS)	**$73,688**	

Table 4: Projected Cash Flow 2012

A.	Projected Net Income or Loss			$73,688
	Add			
B.	Items in Operations not Requiring Cash:			
	1. Depreciation Expense			$115,000
	2. Others: _____			$0
C.	Cash Provided from:			
	1. Proceeds from Loans/Grant Fund Financing Sources			$0
	2. Proceeds from Others			$0
	3. Increase (decrease) in Accounts Payable, etc.			$0
	4. Decrease (increase) in Accounts Receiveable, etc.			$0
	5. Other: _____			$0
	6. _____			
D.	Total all A,B,C Items			$188,688
E.	Less: Cash Expended for:			
	1. Construction, Equipment, New Capital (Loan & Grant Funds)			$0
	2. Rehabilitation, Replacement of Existing Plant, Equipment			$20,000
	3. Loan Principal Payment-Primary Lender			$63,000
	4. Principal Payments Other Loans			$0
	5. Other: _____			$0
	6. Total E1 through 5			$83,000
	Add			
F.	Beginning Cash Balances			$528,000
G.	Ending Cash Balances (Total of D minus E6 Plus F)			$633,688

	Item G Cash Balances Composed of:	**Estimated Balances 12/31/11**	**Projected Account Transfers**	**Projected Balances FY 2012**
	General Operating Account	$180,000	$26,688	$206,688
	Emergency Reserve	$90,000	$11,000	$101,000
	Debt-service Reserve	$128,000	$0	$128,000
	Equipment Repair/Replacement	$30,000	$18,000	$48,000
	Capital-improvements Reserve	$100,000	$50,000	$150,000
	Total (agrees with Item G)	$528,000	$105,688	$633,688
	Check Transfer Amt:		$105,688	

Chapter 4
Oversight and monitoring of financial performance

After budgets have been prepared and the 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 it also means 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 publication 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 5** on page 20.

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, 2011, which is month number nine of the fiscal year. The budget targets in Table 5 represent 75 percent 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) 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.

Table 5: Sample Monthly Income Statement

A	B	C	D	E
Name of Utility: Sample Utility				
For the Last Full Month Ending: September 30, 2011				
	Total Number of Full Months for This Report			9
	Total Number of Months-Full Fiscal Year			12
Revenue	**Current Year 2011 Budgeted**	**Current Yr Actual**	**Budget Target Number**	**Actual Difference (Over or Under) Budget Target**
Water Sales	665,000	496,341	498,750	2,409
Misc. Construction & Meter Conn.	12000	6,634	9,000	2,366
Membership Fees Received	1000	457	750	293
Total Revenue	**$678,000**	**$503,432**	**$508,500**	**$5,068**
Operating Expenses				
Salaries & Fringe Benefits	181,500	139,500	136,125	-3,375
Depreciation Expense	115000	86,250	86,250	0
Service Supplies	60000	40,000	45,000	5,000
Electricity & Utilities	45000	31,267	33,750	2,483
Insurance	40000	30,000	30,000	0
Contract Labor	32000	18,769	24,000	5,231
System Repair & Maintenance	22500	11,340	16,875	5,535
Taxes & Licenses	17000	8,976	12,750	3,774
Fuel & Oil	13500	10,765	10,125	-640
Telephone	9500	7,500	7,125	-375
Bad-debt Expense	4000	450	3,000	2,550
Legal & Accounting	5000	4,000	3,750	-250
Miscellaneous	4300	3,500	3,225	-275
Postage	4500	4,000	3,375	-625
Office Expenses	3200	1,895	2,400	505
Continuing Education	3000	1,587	2,250	663
Uniforms	3000	2,450	2,250	-200
Testing & Analysis	3000	2,500	2,250	-250
Truck Expense	3000	1,876	2,250	374
Bank Charges	150	95	113	18
Total Operating Expenses	**$569,150**	**$406,720**	**$426,863**	**$20,143**
NET Operating Income (LOSS)	**$108,850**	**$96,712**	**$81,638**	
Other Income and Expenses				
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
Total Other Income and Expenses	**-48,979**	**-42,122**	**-36,734**	**5,388**
NET INCOME (LOSS)	**$59,871**	**$54,590**	**$44,903**	

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**) shows the system's net worth—how much the system is worth at a particular point in time.
- **The income statement** (or **statement of activity**) shows the results of operations over a period of time—how much revenue the system has earned vs. the amount of expense it has incurred.
- **The cash-flow statement** breaks down all of the financial transactions of the system in terms of how they affect the flow of cash.

Financial statements often present information comparatively. The balances from the current and previous year are shown side-by-side, which allows for easy comparison between 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
- 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 6: Sample Balance Sheet**, page 22, shows the date December 31, 2010, and compares the numbers for 2010 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:

liabilities + equity = 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 6: Sample Balance Sheet

ASSETS	2010	2009
Current Assets		
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
Total Current Assets	**$577,949**	**$338,872**
Fixed Assets		
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
Total Inventory	**1,286,489**	**1,399,087**
Long-term Assets		
Investments	86,660	186,660
Total Long-term Assets	**86,660**	**186,660**
TOTAL ASSETS	**$1,951,098**	**$1,924,619**
LIABILITIES AND NET ASSETS		
Current Liabilities		
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
Total Current Liabilities	**125,997**	**111,641**
Long-Term Liabilities		
Long-term notes payable	1,297,938	1,354,061
Total Long-Term Liabilities	**1,297,938**	**1,354,061**
Equity		
Contributed capital (membership)	56,415	56,415
Donated capital (govt. grants)	1,720,300	1,720,300
Retained earnings	-1,249,552	-1,317,798
Total Equity	**527,163**	**458,917**
TOTAL LIABILITIES & NET ASSETS	**$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
- long-term assets
- property, plant and equipment

Current assets

Current assets are items than 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.

- **Cash and cash equivalents** 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, 2011, less than 90 days from the balance sheet's statement date of December 31, 2010.
- **Accounts receivable** is money owed to the system. This includes things like outstanding water bills, connection fees owed to the system, and reconnection fees.
- **Prepaid expenses** 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, prepays of $4,982 are listed, which is the result of a property insurance premium paid on December 15, 2010. The insurance policy is effective from January 1, 2011, through December 31, 2011. Because the system will receive the benefit of this policy during the next fiscal year (2011), the amount paid is considered an asset on the effective date of the example balance sheet—December 31, 2010.
- **Short-term investments** 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, 2011, and December 26, 2011.
- **Inventory** 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.

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.

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 in order 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

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, 2012 – 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 (electricity, etc.) bills, office supplies, and reimbursement 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 twelve 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. However, the difference between accrued liabilities and accounts payable relates more 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 the 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, 2010 , 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 of $527,163.

Equity increases for each year that a net income is recorded.

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 if 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:

current assets ÷ current liabilities
= liquidity ratio

On the sample balance sheet (for 2010):

- 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 ÷ $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:

equity ÷ total assets = leverage ratio

On the sample balance sheet (for 2010):

- 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 ÷ $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 publication 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.

Table 7: Sample Income Statement

Revenue	**2010**	**2009**
Water Sales	661,363	665,091
Misc. Construction & Meter Conn.	19,293	10,831
Membership Fees Received	1,200	1,305
Total Revenue	**$681,856**	**$677,227**
Operating Expenses		
Salaries & Fringe Benefits	180,381	153,700
Depreciation Expense	112,598	118,338
Service Supplies	61,460	70,555
Electricity & Utilities	45,647	40,634
Insurance	40,786	33,702
Contract Labor	35,545	29,484
System Repair & Maintenance	24,816	19,498
Taxes & Licenses	16,696	17,482
Fuel & Oil	13,408	11,990
Telephone	9,701	7,761
Bad-debt Expense	6,646	2,663
Legal & Accounting	4,829	5,585
Miscellaneous	4,385	4,294
Postage	4,374	4,659
Office Expenses	3,320	3,699
Continuing Education	2,913	3,603
Uniforms	2,841	3,226
Testing & Analysis	2,662	2,941
Truck Expense	2,094	4,452
Bank Charges	132	90
	$575,234	**$538,356**
NET Operating Income (LOSS)	**$106,622**	**$138,871**
Other Income & Expenses		
Interest Income	20,000	12,230
Gain on Sale of Equipment	13,295	0
Interest Expenses	-71,671	-75,113
Total Other Income & Expenses	**-38,376**	**-62,883**
NET INCOME (LOSS)	**$68,246**	**$75,988**

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 a water system 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 basis. This period is called the system's fiscal year. For the example utility used in this publication, the fiscal year coincides with the calendar year—January 1 through December 31. Some systems may have fiscal years that begin at a different point during the calendar year, such as July or October. 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.

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 28. 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 June 30, 2010" means the statement shows revenue and expenses incurred during June 2010 only. A heading that reads, for example, "for the quarter ending June 30, 2010" indicates that the document covers revenue and expenses incurred from April 1 to June 30 of 2010. A heading that reads, "for the year ending June 30, 2010," would cover the entire fiscal year, which in this case takes place from July 1, 2009, to June 30, 2010.

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. Be careful about putting items in this category, however.
- **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 2009 and 2010. 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, 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, 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.

Operating 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 2010):

- 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 ÷ 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 statute.

The Rural Utilities Service (of USDA Rural Development) Water and Waste Disposal 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 2010, 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 2010 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 ÷ $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.

The cash-flow statement

The cash-flow statement shows how all of a utility'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. This isn't the case.

The lack of cash flow can kill a company 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 destroy your utility:

1. 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.
2. 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.
3. Without necessary supplies and services, the system must delay or forego necessary maintenance or repair to the system.
4. 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.
5. 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 8: Sample Statement of Cash Flows** on page 34, 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 water 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 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.

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 (2009 and 2010), 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 8: Sample Statement of Cash Flows

For years ending Dec. 31, 2010, and 2009

Cash Flows from Operating Activities	2010	2009
Net Income (Loss)	$68,246	$75,988
Adjustments to reconcile change in net assets to net cash		
Provided by operating activities:		
Depreciation	$112,598	$118,338
(Increase) Decrease in accounts receivable	5,014	(7,395)
(Increase) Decrease in prepaid expenses	(25)	(1,485)
(Increase) Decrease in interest receivable	0	(3,053)
(Increase) Decrease in inventory	1,054	6,938
Increase (Decrease) in accrued expenses	90	870
Increase (Decrease) in payroll tax liabilities	(321)	624
Increase (Decrease) in accrued interest	13,355	10,243
Increase (Decrease) in meter deposits	(1,098)	0
Increase (Decrease) in accounts payable	445	28
Net cash used in investing activities	**$199,358**	**$201,096**
Cash Flows from Investing Activities		
Purchase of property and equipment	0	(19,857)
Net cash used in investing activities	**0**	**($19,857)**
Cash Flows from Financing Activities		
Retirement of long-term debt	(54,238)	(37,106)
Purchase of Securities	(2,219)	0
Sale of Securities	100,000	0
Net cash used in financing activities	**$43,543**	**($37,106)**
Net Increase in Cash	**$242,901**	**$144,133**
Cash Balance, beginning of year	**253,573**	**109,440**
Cash Balance, end of year	**$496,474**	**$253,573**
(Dollar Values are for Illustration Purposes Only)		

Chapter 5
Maintaining sustainable water and waste-disposal services

Maintaining system viability

A community's water or waste-disposal facility is an essential component of the overall well-being and quality of life of a rural community. Safe, affordable drinking water and sanitary waste disposal are vital to the public's health and the environment. Water and waste-disposal services are building blocks for community growth and development, economic development, and job creation and retention.

In terms of money, for many small towns and rural communities, the water-supply and/or wastewater-disposal facility may 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 waste-disposal 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 waste disposal 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).

> Safe, affordable drinking water and sanitary waste disposal are vital to the public health and environment.

The audit report

While each individual financial statement contains important information, the statements must be reviewed together to obtain a clear picture of your system's financial stability. And while it is not an official part of your financial statements, an external audit should be conducted and an audit report issued. The audit is a critical document for a utility to have. Not only is the audit an important indicator of the overall fiscal health of your utility, an external audit will assist your utility's decision-makers in ensuring the integrity of the financial-management system.

Many water utilities are required, either by state law or by an external lender, to produce an annual audit report. Even if an external audit is not a requirement, it is a good business decision to have an annual audit completed.

When federal funds are used

An audit performed by a certified public accountant (CPA) is required whenever federal funds are used in a project's construction. When your utility is using funds from the federal government for projects, it is therefore important that those project's funds are separated from other funding sources. Careful records must be maintained in an audit-friendly format. An audit complying with OMB Circular A-133 must be completed for borrowers that received $500,000 or more in federal (loan or grant) assistance. Most construction projects will meet this threshold.

The OMB Circular A-133 requires that the auditor provide an opinion on the appropriate expenditure of federal funds in addition to the normal audit requirements. The audit must therefore trace each project transaction from contract signature to final payment. These audits are both time-consuming and expensive. Testing requirements and auditing costs for an A-133-compliant audit are almost double that of a typical audit. Utilities must plan accordingly.

Contact your auditor in advance of a project's construction phase to review A-133 program requirements and negotiate the cost of the audit. If possible, you should retain enough contingency money in the project's budget to cover the additional cost of an A-133 audit.

Request for proposals

The audit-hiring process starts with a request for proposals (RFP). As part of the bidding process, your system should require that firms have:

- a clear understanding of the system's business
- references from other clients in the water or wastewater industry
- résumés of the personnel working on the audit
- a clean peer-review letter that shows the firm has undergone an extensive review of its policies and procedures in performing audits and that it adheres to industry standards in completing the audits

Your utility should request that the cost estimate of the audit be sent in a separate, sealed envelope from the qualifications proposal because you will want to open them separately.

First, review each firm's qualifications and rank them on that basis. Then, open the cost proposals. If the firm with the best qualifications isn't the cheapest, then it may give you a chance to negotiate the final fee.

Auditor opinion

When the audit is completed, the firm will issue an auditor opinion. The opinion is the first page of the audit. It will detail the scope of the audit, the auditor's opinion of the procedures and records used to produce the financial statements, and an opinion of whether or not the financial statements present an accurate picture of the utility's financial condition. An "unqualified opinion" or "clean opinion" is the best an organization can receive. It means the auditor did not find any material misstatements in the system's financial records. A "qualified opinion" contains exceptions, which may include the scope of the audit. An adverse opinion can be issued when the auditor determines that the financial statements are materially misstated and in general do not conform with generally accepted accounting principles.

Financial statements

The audit will include the primary financial statements: the balance sheet, the income statement, and the cash-flow statement. The next major item in the audit is the notes to the financial statements. The notes provide valuable information regarding the nature of operations and in-depth information about various balances in the financial statements, such as notes payable and property, plant and equipment. The notes will contain a lot of other pertinent information and should be read carefully.

Auditor's recommendations

The audit report may also contain useful recommendations from the audit firm for making improvements within the financial system that will provide better safeguards for financial assets, improve efficiency or both. The governing board and management of the utility should strongly consider taking the actions necessary to implement the recommendations of their auditor.

Report presentation

The final step in the audit process is the report presentation. The auditor should present the audit to the water system's entire board. The auditor should be available to explain the report's numbers and respond to any questions. Board members should not be afraid to ask questions until they understand the audit completely. Remember: the auditor works for the utility's entire governing board.

Using unit-of-service measures

It is often simpler to understand the "business" of a utility by developing and reviewing short-hand unit-of-service measurements. The utility is not only generating revenues and expenses, but it is also producing and selling a product—water and wastewater treatment (often measured in thousands of gallons)—for a number of customers (usually measured on a monthly basis). Reviewing a utility's operations from a unit-of-service perspective can give decision-makers a better understanding of how the utility is performing over time. Common unit-of-service measurements can be calculated from the information in annual financial statements. Consider some of the common unit-of-service measures that were calculated with figures (total average revenue per month, total average expenses per month, number of users, and others) from the 2010 annual financial statements of a sample water system:

Unit-of-service performance data for 2010:

- Average revenue per customer per month: $81,028 ÷ 250 (number of users) ÷ 12 mos. = $27.00
- Total expense per customer per month: $79,928 ÷ 250 ÷ 12 mos. = $26.64
- Total debt service per customer per month: $23,100 ÷ 250 ÷ 12 mos. = $7.70
- Total cost to produce water per 1,000 gallons: $79,928 ÷ 15,000,000 gals/1,000 =$5.33
- Revenue per 1,000 gallons sold: $77,153 ÷ 14,250,000 gals/1,000 = $5.41
- Average customer use per month: 14,250,000 ÷ 250 ÷ 12 mos. = 4,750 gallons

Using unit-of-service measures is a good way of simplifying a complex sheet of financial data. Similar to financial ratios, comparing common units of service from one year to the next enables managers and board members to quickly determine whether the utility is moving in the right direction.

Review user rates annually

User rate 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 annual debt service and funding

of appropriate reserves. Generally, it is good to adjust user rates at least once every five to six years. 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.

Plan ahead

Historically, one of the biggest problem areas for small-community utilities has been the failure to plan for the future. It is important for the management and board of small systems to look beyond the annual budget year and look at the system's needs in future years--both operational needs and the needs for capital improvements. Whether your state regulatory agency requires your utility to prepare a long-range plan or capital-improvement plans or not, projecting for financial needs (both operational and capital) is a key part of a financially sustainable utility.

Other RCAP publications to help in the operations and oversight of water systems

If you are a board or council member or staff member with responsibilities for overseeing your community's water system, the Rural Community Assistance Partnership (RCAP) has produced many other publications to assist you in these responsibilities. These publications are titled/on the topics of:

- *A Drop of Knowledge: The Non-operator's Guide to Drinking Water Systems*
- *A Drop of Knowledge: The Non-operator's Guide to Wastewater Systems*
- *responsibilities (managerial, financial, legal, etc.) of board members of small water systems*
- *USDA Rural Utilities Service Borrower's Guide: A How-to for Water and Wastewater Loans from USDA Rural Development*
- *ARRA Registering and Reporting Guide for Water/ Wastewater Systems with Loans/Grants from the U.S. Department of Agriculture-Rural Utilities Service*
- *Sustainable Infrastructure for Small System Public Services: A Planning and Resource Guide*
- *Formulate Great Rates: The Guide to Conducting a Rate Study for a Water System*
- *Getting Your Project to Flow Smoothly: A Guide to Developing Water and Wastewater Infrastructure*
- water-distribution system maintenance
- asset management and conducting vulnerability assessments and emergency-response planning

All of the above publications can be accessed and downloaded for free (in PDF) on the RCAP website at *www.rcap.org* (click on "Publications & Resources" on the main menu).

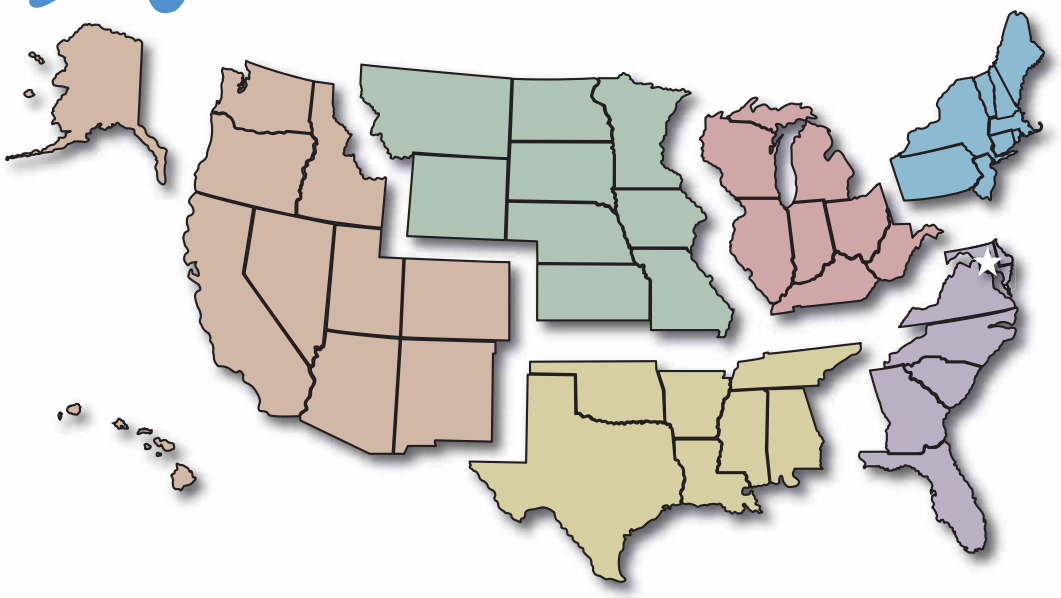
Free resources that can be sent to you regularly: RCAP has a magazine–*Rural Matters*–that is produced several times each year. Subscriptions are free. Included in each issue are articles that are useful to small community leaders and system operators. RCAP also produces an electronic newsletter, the eBulletin. Subscribing by email is also free. Each issue provides helpful tips, guides and resources on practical subjects. Find subscription information for both of these resources at *www.rcap.org* (click on Publications & Resources).

Need help with your community's water or wastewater system?

The Rural Community Assistance Partnership (RCAP) is a national network of nonprofit organizations working to ensure that rural and small communities throughout the United States have access to safe drinking water and sanitary wastewater disposal. The six regional RCAPs provide a variety of programs to accomplish this goal, such as direct training and technical assistance, leveraging millions of dollars to assist communities develop and improve their water and wastewater systems.

If you are seeking assistance in your community, contact the office for the RCAP region that your state is in, according to the map below. Work in individual communities is coordinated by these regional offices.

Rural Community Assistance Partnership



Puerto Rico (Northeast RCAP) and U.S. Virgin Islands (RCAC)

Western RCAP
Rural Community Assistance Corporation
3120 Freeboard Drive, Suite 201
West Sacramento, CA 95691
(916) 447-2854
www.rcac.org

Midwest RCAP
Midwest Assistance Program
P.O. Box 81
212 Lady Slipper Avenue NE
New Prague, MN 56071
(952) 758-4334
www.map-inc.org

Southern RCAP
Community Resource Group
3 East Colt Square Drive
Fayetteville, AR 72703
(479) 443-2700
www.crg.org

Northeast RCAP
RCAP Solutions
P.O. Box 159
205 School Street
Gardner, MA 01440
(800) 488-1969
www.rcapsolutions.org

Great Lakes RCAP
WSOS Community Action Commission
P.O. Box 590
219 S. Front St., 2nd Floor
Fremont, OH 43420
(800) 775-9767
www.glrcap.org

Southeast RCAP
Southeast Rural Community Assistance Project
P.O. Box 2868
347 Campbell Ave. SW
Roanoke, VA 24016
(866) 928-3731
www.southeastrcap.org

★ RCAP National Office ★
1701 K Street NW, Suite 700 • Washington, DC 20006
202/408-1273 • 800/321-7227
www.rcap.org

Rural Community Assistance Partnership, Inc.
1701 K St. NW, Suite 700
Washington, DC 20006
202/408-1273
800/321-7227 (toll-free)
info@rcap.org

www.rcap.org

Visit our website for other publications, electronic and print periodicals, and ways your community can get assistance with its water and wastewater system.