APPENDIX A

BUSINESS PLAN

Manual
for Assessing
Public Water Supply System Capability

WATER SYSTEM ID: _____
WATER SYSTEM NAME: _____
COUNTY NAME: _____
OWNER'S NAME: _____
ADDRESS: _____
_____
PHONE NO.: _____

Rev.01212000.OES.1.01

REFERENCES:

"Georgia's Requirement for Business Plans", Georgia Department of Natural Resources, Environmental Protection Division, Memorandum, Edward Urheim, Drinking Water Permitting and Engineering Program, July 23, 1999.

“Guidance on Implementing the Capacity Development Provisions of the Safe Drinking Water Act Amendments of 1996”, U.S.E.P.A., Office of Water, July 1998.

Iowa Department of Natural Resources, Water Supply Section, “Self-Assessment Manual for Iowa Water System Viability”, December 1, 1997.

BUSINESS PLAN

I. INTRODUCTION

A. THE NEED TO "OPERATE LIKE A BUSINESS"

A water system should be "operated like a business." This is a frequently repeated phrase. But, what is meant by it? Here's one useful way to think about what it means to operate like a business:

For a successful business, a manager must be aware of changes taking place in the environment in which the business operates. It is necessary to constantly look towards the future to:
*1) Cope with any **threats** to the survival of the business, and*
*2) Take advantage of **opportunities** to improve the performance of the business.*

In the same way, owners and managers of a water system must look towards the future. Such things as the need for financing, the impact of new regulations or the loss of key customers will present management demands that can only be met through sound business planning.

Many water systems were started at a time when the cost of providing water was low and regulatory demands were few. But times have changed! Little remains of the good old days when operating a water utility was a simple job. Not any more. Now, it is essential that all water system owners and operators prepare themselves for an uncertain future by becoming capable business managers and financial planners.

A successful manager relies on a "business plan" to assure a company (a water supply system) will be able to meet the changing demands of an uncertain future.

A business plan requires a two-sided analysis:
1. Receiving income from sales to pay for capital investments and operating expenditures, and
2. Spending money to produce a product or service

In any business plan, the fundamental budget question is the "bottom line" -- whether income received will equal or exceed the money spent. When there is more income than expense, there is a "positive bottom line," indicating the business has done a good job of planning for challenges, and that the business will be "viable" in the future. A "negative bottom line" indicates a business has failed to respond to threats and opportunities. Such a business may be said to be "nonviable" because its ability to survive is suspect under current conditions. In such circumstances, businesses are often "restructured" to change their costs, their access to capital, or the revenues they receive for products or services, in an attempt to become viable again.

Whether a business is viable or nonviable is directly related to the planning done by the water system managers. With good information, the picture becomes crystal clear. But, when there is little information on which to build a plan, this picture becomes only bleak. A lack of information about current operations and absence of planning can severely limit the ability of a water system to meet future challenges. If a water system is not operated as a viable business, its survival as a business, as well as, its ability to achieve and maintain compliance with the drinking water regulations will be uncertain. Without a sound business plan, it will be difficult,

if not impossible, for a water system to survive in an increasingly complex world, as more stringent SDWA regulations are introduced.

B. 1996 AMENDMENTS TO THE SAFE DRINKING WATER ACT REQUIRE WATER SYSTEMS TO DEVELOP AND MAINTAIN TECHNICAL, MANAGERIAL, AND FINANCIAL CAPACITIES TO ACHIEVE HEALTH PROTECTION OBJECTIVES

The Safe Drinking Water Act (SDWA) as amended in 1996 brings significant improvements to the national drinking water program. Capacity development is an important component of the Act's focus on preventing problems with the drinking water systems. The capacity development provisions offer a framework within which the Georgia Environmental Protection Division (EPD) and public water systems can work together to ensure that systems acquire and maintain the technical, financial, and managerial capacity needed to achieve the public health protection objectives of the SDWA. The Act's capacity development provisions apply to Community Public Water Systems (CWS) and Non-Transient, Non-Community Public Water Systems (NTNCWS) and requires these water systems to demonstrate adequate capability in all three areas: technical, managerial, and financia1.

What is technical capacity? The technical capacity is the physical and operational ability of a water system to meet SDWA requirements. Technical capacity refers to the physical infrastructure of the water system, including the adequacy of the source water, treatment, storage, and distribution. It also refers to the ability of system personnel to adequately operate and maintain the water system and to otherwise implement requisite technical knowledge.

A water system's technical capacity can be determined by examining certain key issues and questions, including:

- *Source water adequacy*. Does the system have a reliable source of drinking water? Is the source water of generally good quality, and is it adequately protected?

- *Infrastructure adequacy.* Can the system provide water that meets SDWA standards? What is the condition of its infrastructure, including well(s) or source water intakes, treatment, storage, and distribution? What is the infrastructure's life expectancy? Does the system have a capital improvement plan?

- *Technical knowledge and implementation.* Is the system's operator certified? Does the operator have sufficient technical knowledge of applicable standards? Can the operator effectively implement this technical knowledge? Does the operator understand the system's technical and operational characteristics? Does the system have an effective operation and maintenance program?

What is managerial capacity? Managerial capacity is the ability of a water system to conduct its affair in a manner enabling the system to achieve and maintain compliance with SDWA requirements. Managerial capacity refers to the system's institutional and administrative capabilities.

Managerial capacity can be assessed through certain key issues and questions, including:

- *Ownership accountability.* Is the system owner(s) clearly identified? Can the owner be held accountable for the system?

- *Staffing and organization*. Are the system operator(s) and manager(s) clearly identified? Is the system properly organized and staffed? Do personnel understand the management aspects of regulatory requirements and system operations? Do they have adequate expertise to manage water system operations? Do personnel have the necessary licenses and certifications?

- *Effective external linkages.* Does the system interact well with customers, regulators, and other entities? Is the system aware of available external resources, such as technical and financial assistance?

What is financial capacity? Financial capacity is a water system's ability to acquire and manage sufficient financial resources to allow the system to operate and maintain compliance with SDWA requirements.

Financial capacity can be assessed through certain key issues and questions, including:

- *Revenue sufficiency.* Do revenues cover costs? Are water rates and charges adequate to cover the cost of water?

- *Credit worthiness.* Is the system financially healthy? Does it have access to capital through public or private sources?

- *Fiscal management and controls*. Are adequate books and records maintained? Are appropriate budgeting, accounting, and financial planning methods used? Does the system manage its revenue effectively?

C. WHY, WHO, WHAT and WHEN

WHY A BUSINESS PLAN?

- The Safe Drinking Water Act (SDWA) Amendments of 1996 require all new Community Public Water Systems (CWS) and Non-Transient, Non-Community Public Water Systems (NTNCWS) to demonstrate that the proposed water system will technically, managerially, and financially be capable of meeting drinking water requirements and of providing a safe and adequate supply of water for human consumption over time. Existing water systems, when required, must similarly demonstrate that they have the technical, managerial and financial capability to remain viable.

- A Business Plan can benefit any type of a public drinking water system. It can help prevent investments in water systems that may become problems for everyone, including the owner, operator, customers, community, lender, and regulator.

- When developed, a Business Plan will provide the water system owner, operator, local officials, customers and Georgia EPD with assurances that the water system has the financial, managerial, and technical capability to reliably meet drinking water performance requirements over a period of time.

WHO CAN PREPARE A BUSINESS PLAN?

- **It is preferred that the water system's engineer, financial advisor or other consultant prepare the Business Plan**; however, the water system's owner or operator or any individual familiar with the system's operation, management and its finances can also develop the plan. **Regardless of who prepares the Business Plan, responsibility for its validity and ultimate implementation remains with the water system owner.**

WHAT TO INCLUDE IN A BUSINESS PLAN SUBMITTED FOR EPD'S REVIEW & CONCURRENCE

- All components discussed under the section, titled "Guidance on Preparing a Business Plan for a Public Water System in Georgia" must be addressed, as applicable. These components must include all and each subpart under Part I (Managerial Capacity), Part II (Financial Capacity) and Part III (Budgeting Worksheets). All questions requiring either a "Yes" or a "No" answer must be marked (√), appropriately. Any additional documents that are considered pertinent should be included as supplements.

- Provide justification or documentation for any assumptions used in completing the budgeting worksheets and preparing entries for the Business Plan. Please use narratives to describe how assumptions were made and what factors were considered.

- An Operations and Maintenance (O & M) Manual must be developed and included as an essential part of the Business Plan for the water supply system. The O & M Manual should summarize the actions necessary to identify those measures required for cost effective, efficient, safe, and reliable project start-up and continued success. If you already have an O & M Manual, submit it along with the Business Plan. If not, a submittal of an O & M Manual will be necessary, when required by the Division.

WHEN TO SUBMIT A BUSINESS PLAN

- **All new (proposed) Community (CWS) and Non-Transient Non-Community Water Systems (NTNCWS) must submit an acceptable Business Plan along with the engineering plans and specifications for the Division's review and approval, prior to any construction. Any proposal or a submittal package for the development of a new CWS or a NTNCWS that does not include an acceptable Business Plan will be promptly returned to the owner UNAPPROVED, and no further consideration will be given for issuance of an operating permit for that system.**

- Existing CWS and NTNCWS must submit an acceptable Business Plan as required by the Director.

GUIDANCE ON PREPARING A BUSINESS PLAN FOR A PUBLIC DRINKING WATER SYSTEM IN GEORGIA

The Georgia Rules for Safe Drinking Water, Paragraph 391-3-5-.17(1) requires all public water systems to obtain a permit from the Environmental Protection Division (EPD) before commencing operation. As a condition of obtaining the permit, the water system must submit documentation to demonstrate its **technical, managerial,** and **financial** capacity [Paragraph 391-3-5-.17(3)]. The Rules and EPD's "Minimum Standards for Public Water Systems" define the minimum documentation that must be submitted to EPD to demonstrate technical capacity. **For demonstration of managerial and financial capacity, EPD requires the submittal of a "Business Plan**". When a proposed public water system is required to submit an engineering report, the items required to be addressed in the business plan may be included in the engineering report. For proposed public water system not required to submit a formal engineering report, a separate business plan shall be submitted for review and concurrence. The business plan shall be submitted with the engineering plans and specifications and application for the permit to operate a public water supply system.

The "Business Plan" must be able to present all the pertinent information necessary to demonstrate the water system's MANAGERIAL and FINANCIAL capacity with respect to the drinking water regulations in effect or likely to be in effect. The prepared "Business Plan" must include, at minimum, all the required information identified under Part I (Managerial Capacity), Part II (Financial Capacity), and Part III (Budgeting Worksheets).

PART I - MANAGERIAL CAPACITY

A. ASSESSING YOUR MANAGEMENT CAPABILITIES - This section of the Business Plan must provide detailed information for items 1 through 12, listed below, and answer each of the "yes" or "no" questions asked under "Operation and Maintenance" and "Management and Administration". Any other supplemental information that may be pertinent and/or helpful in demonstrating the water system's managerial capacity must be included in the Business Plan.

1. A description of the organization that clearly defines primary responsibilities of all key personnel involved in the management and operation of the water system and reporting relationships.

2. Contact information for those responsible for policy decisions, ensuring compliance with State regulatory requirements, and day-to-day operations.

3. Description of any contracts for the management or operation of the system and how legal, engineering, and other professional services are provided.

4. Identification of the ownership and description of the legal basis of the system ownership.

5. Description of any leases or easements for land, water supply sources, or physical facilities used in the operation of the system.

6. Description of the qualifications of the owners and managers of the system including experience in owning or operating other water systems.

7. Description of a training plan to keep management and operators current with the regulatory requirements of managing a water system.

8. Emergency Management Plan. For community systems, the plan should identify known and potential risks (natural or man-made) to the water system; specify the response plan; identify personnel responsible for action; and describe public notification procedures. For non-community systems, submittal of a notification plan containing names and 24-hour phone numbers of responsible persons to contact in the event of an emergency is acceptable.

9. Description of customer service policies, including providing customers information and handling customer complaints.

10. If the person in charge of operation has other responsibilities unrelated to the water system, it is necessary to provide information showing that the operator will have sufficient time and be readily available to execute his or her responsibilities reliably.

11. Disclosure of any encumbrances, trust indentures, bankruptcy decrees, legal orders or proceedings, or other items that may effect or limit the owner's control of the system.

12. Disclosure of any plans to change the ownership of the system once the system is completed and, if known, identification of the future owners.

B. OPERATION and MAINTENANCE - Operational demands placed on all water systems are rising to unprecedented levels. Some indication of whether these operational needs can be met is provided through consideration of the following series of questions. "NO" answers to the following questions indicate that the water system's future operational needs may not be fully met.

Does your operations staff have the right training and credentials?

YES__ NO__ Is the person in-charge of operating your system certified at the classification required by the Georgia Rules for Safe Drinking Water, Chapter 391-3-5?
YES__ NO__ Does your operator receive training on an ongoing basis to keep abreast of current developments in the water field?

Does your staff fully understand and meet all current monitoring requirements?

YES__ NO__ Do you have a history free of monitoring violations?
YES__ NO__ Are you aware of and do you understand provisions for obtaining waivers from monitoring requirements and the role of vulnerability assessment?

Are you confident you understand what it will take to meet future operational demands?

YES__ NO__ Can you make an appraisal of the additional operational requirements on your water system based on the categories of questions presented above? (Do you

know how this forecast matches up against your current level of operational capability?)

YES__ NO__ Does your water system obtain any regular or occasional technical assistance from outside sources, such as your engineer, other utilities, or organizations specifically dedicated to providing technical assistance?

YES__ NO__ Are you aware of all the assistance programs that are available to you?

C. MANAGEMENT and ADMINISTRATION - As the list of quantity, quality, and infrastructure needs of water systems grows larger and larger, the extent of management systems needed to meet all these needs also grows. The following questions highlight the general types of management systems that should exist in some form. Although some of these items may sound sophisticated, they can exist in very simple forms and get the job done very effectively. As a general rule, they need be no more sophisticated than necessary to meet the needs of the system. The important issue is that the need for management systems is recognized and is being met. "NO" answers to the following questions imply that your water system may have inadequate management systems.

Is it clear who is in charge of what?

YES__ NO__ Is there a clear plan of organization and control among the people responsible for management and operation of the system?

YES__ NO__ Are the limits of the operator's authority clearly known?

YES__ NO__ Are all the specific functional areas of operations and management assigned?

YES__ NO__ Does everyone involved in operations know who is responsible for each area?

YES__ NO__ Is someone responsible for scheduling work?

Are there clear rules and standards?

YES__ NO__ Do you have explicit rules and standards for system modifications?

YES__ NO__ Do you have rules governing new hook-ups?

YES__ NO__ Do you have a water main extension policy?

YES__ NO__ Do you have standard construction specifications to be followed?

YES__ NO__ Do you have a "Standard Operating Procedures" manual?

YES__NO__ Do you have measures to assure cross-connection control and backflow prevention?

YES__ NO__ Do you have policies or rules describing customer rights and responsibilities?

Do you have a deliberately organized regulatory compliance program?

YES__NO__ Do you fully understand monitoring requirements and have a scheduling mechanism to assure compliance?

YES__ NO__ Do you have a mechanism to obtain the most recent information on regulatory requirements?

YES__ NO__ Do you know how to obtain clarification or explanation of requirements?

YES__ NO__ Do you maintain adequate records to document compliance?

YES__ NO__ Do you know what to do in the event of a violation?

Are you prepared to handle emergencies?

YES__ NO__ Do you have an emergency response plan?
YES__ NO__ Is there a contingency for making emergency interconnections to neighboring systems, and do you know they will work when needed?
YES__ NO__ Does everyone involved in operations know what they are to do in the event of contamination from a toxic or hazardous waste spill in your source water or potential contamination due to a water main break or a storage tank failure?
YES__ NO__ Do you have a clear chain-of-command protocol for emergency action?
YES__ NO__ Is someone responsible for emergency operations, for communications with state regulators, for customer relations, for media relations?

Are your operations conducted safely?

YES__ NO__ Do you have a safety program defining measures to be taken if someone gets hurt?
YES__ NO__ Does everyone understand the risks and safety measures involved in handling water treatment chemicals?
YES__ NO__ Do you have written operating procedures for both routine and emergency system operations?
YES__ NO__ Are you fully aware of OSHA confined space regulations?

Do you have an organized approach to maintenance?

YES__ NO__ Do you have a system for scheduling routine preventive maintenance?
YES__ NO__ Do you have a system for assuring adequate inventory of essential spare parts and back-up equipment?
YES__ NO__ Do you have relationships with contractors and equipment vendors to assure prompt priority service?
YES__ NO__ Do you have records and data management systems for system operating and maintenance data, for regulatory compliance data, and for system management and administration?

Is your management capability complete?

YES__ NO__ Are you getting the outside services and technical assistance you need? Do you have adequate legal counsel, insurance, engineering advice, technical/operations assistance, rate case preparation, and financial advice?

PART II – FINANCIAL CAPACITY

A. FINANCIAL INFORMATION - This section of the Business Plan must provide detailed information for items 1 through 2, listed below, by answering to each of the "yes" or "no" questions asked, and by completing all of the Budgeting Worksheets under Part C (Expense Budget, Capital Budget, Reserves Budget, and Revenue Analysis Worksheets). Any other supplemental information that may be pertinent and/or helpful in demonstrating the water system's financial capacity must be included in the Business Plan.

1. An in-depth, 5-year budget that includes revenue, operating expense, reserve, and capital improvement information. The budget should include a revenue and expenditure analysis that compares all anticipated water system revenues with planned expenditures; an identification of reserve accounts for emergency funding and equipment replacement needs; and when applicable, a capital improvement plan that identifies future projects, and their estimated costs.

2. A description of the budget and expenditure control procedures and the reports that assure adequate budget control; purchasing procedures or policies to prevent misuse of funds; and a demonstration that the system has adopted generally accepted accounting and auditing procedures (GAAP).

B. ASSESSING YOUR FINANCES - The answers to the previous questions under Managerial Capacity may have alerted you to the potential for higher levels of both capital and operating costs. Any system that can show that they have anticipated all their needs and that they are prepared to charge a rate sufficient to meet the annual revenue requirement implied by those needs, is a system that can obtain capital financing and can pay its bills -- it is financially viable. The following questions illustrate some features of "good" financial planning and management to serve as points of comparison for self-assessment. Although every system cannot achieve perfection, the more "yes" answers you have, the better it is. Use the budgeting worksheets under Part C to assess projected costs, financing, and revenue requirements.

Are current financial planning mechanisms adequate?

YES__ NO__ Do you have an annual budget?
YES__ NO__ Does your budget process provide for depreciation of the existing plant or funding reserves?
YES__ NO__ Do you use the budgeting process to determine your annual revenue requirement via either the cash needs approach or the utility approach, as described in the AWWA Revenue Requirements Manual (M35)?
YES__ NO__ Do you regularly review your water rates?
YES__ NO__ Do you have a capital budget or capital improvement plan that projects future capital investment needs (at least five years) into the future?
YES__ NO__ Do you have a process for scheduling and committing to capital projects?
YES__ NO__ Does your planning process account for all the potential capital needs suggested by all of the preceding questions in this manual?
YES__ NO__ Does your long-term planning incorporate analysis of different methods that might offer cost savings to customers, such as consolidation with other nearby systems or sharing operations and management expenses with other nearby systems?

Are current financial management mechanisms adequate?

YES__ NO__ Does your water system presently operate on a break-even basis?
YES__ NO__ Does it generate surplus revenue?
YES__ NO__ Does it operate at a loss?
YES__ NO__ Does the water system keep all the water revenues (i.e., water revenue does not support other municipal departments or unrelated activities)?
YES__ NO__ Do you employ standardized accounting and tracking systems?
YES__ NO__ Do you track budget performance?
YES__ NO__ Do you have procedures for billing and collection?
YES__ NO__ Do you keep records to substantiate depreciation of fixed assets and accounting for reserve funds?
YES__ NO__ Are financial management record keeping systems organized?
YES__ NO__ Are controls exercised over expenditures?
YES__ NO__ Are controls exercised to keep from exceeding your budget?
YES__ NO__ Are there purchasing procedures?
YES__ NO__ Are there procedures for selection of outside contractors and suppliers?

PART III – BUDGETING WORKSHEETS

This section of the Business Plan includes four budgeting worksheets. Each worksheet provides space for budget data from the prior year, current year, and four years into the future. If you do not have access to historical data, fill in only what is known. However, it is important to be as complete as possible. Worksheet A is an expense budget, Worksheet B is a capital budget, and Worksheet C is a reserve budget. The first three worksheets (A, B, and C) lead into Worksheet D which compares total revenue sources with the total revenue requirement of the water system. Together, these four worksheets provide you with a tool by which you can project the future financial needs of the system and your availability to meet these needs -- or the system's financial viability.

Please note the instructions and explanations for the terminology used on the back of each worksheet.

WORKSHEET A - EXPENSE BUDGET								
			Prior Year	Current Year	Year 1	Year 2	Year 3	Year 4
			Actual Budget	Annual Budget	Projected Budget			
1A	**Expenses**							
2A		Personnel Costs						
3A		Utilities						
4A		Outside Services						
5A		Small Equipment, Materials, and Parts						
6A		Purchased Water						
7A		Chemicals, Treatment, and Monitoring						
8A		Transportation						
9A		Office Supplies						
10A		Customer Billing and Collection						
11A		***Income Tax***						
12A		***Property taxes or payments in lieu of taxes***						
13A								
14A								
15A								
16A								
17A								
18A								
19A		Depreciation (please see instructions)						
20A		*Total Expenses (total lines 2A to 19A)*	$	$	$	$	$	$

WORKSHEET A - EXPENSE BUDGET

Expenses

Personnel costs. Enter the cost of salaries and benefits of the water system's operators and administrative employees.

Utilities. Enter the annual utility bill of the water system. Utilities include any power supply, including gas and electric, water supply, sewage treatment, and telephone/fax bills among others.

Outside services. Enter the total cost of any services that the water system hires another company or individual to perform. These services can include, but are not limited to, the provision of insurance, external auditors and other accounting services, legal services, architects, engineers, consultants, contractors, etc.

Small equipment, materials, and parts. Enter the total annual cost of any equipment, materials, and parts that are purchased to make repairs or otherwise maintain the water system. Only enter those items which will be paid for in a single year. Other items that have a long life (ten or fifteen years at a minimum), have a high cost that must be paid for over time, and are nonrecurrent should be added to capital outlays on Worksheet B.

Purchased water. Enter the total annual cost of any water that the water system purchases from other sources and then redistributes to the customers of the water system.

Chemicals, treatment, and monitoring. Enter the total annual cost of water treatment chemicals, other costs associated with treating the water, and the cost of monitoring water quality, including the cost of all monitoring and testing equipment.

Transportation. Enter the costs that the water system incurs for transportation-related expenses. Among others, these include the direct cost of vehicles and vehicle maintenance and repair.

Office supplies. Enter the cost of supplies that are used in administrative work. These supplies include paper, pens, etc.

Customer billing and collection. Enter the expenses that the water system incurs in sending out customer bills and collecting payments (do not include the associated costs of personnel nor outside services).

Income Taxes. Enter the amount of the water system's annual income taxes, if applicable.

Payments in lieu of taxes. Enter the value of any taxes paid on property or any payments made in lieu of taxes.

Other. Several blank lines are available to enter other expenses not included above that the water system may incur.

Depreciation Expense. Depreciation refers to the decrease in value of property, plant, and equipment over time. If it is not a practice of your water system to account for depreciation, leave the depreciation expense line blank. If it is a practice of your water system to account for depreciation and you contribute to a replacement/depreciation fund each year and the amount that you contribute is greater than or equal to your annual depreciation expense, leave depreciation expense blank. However, if you do not have a replacement fund or contribute significantly less to your replacement fund than the value of your depreciation expense enter your depreciation expense on Worksheet A.

Total Expenses. Enter the sum of all the expenses listed above.

WORKSHEET B - CAPITAL BUDGET								
			Prior Year	Current Year	Year 1	Year 2	Year 3	Year 4
			Actual Budget	Annual Budget	Projected Budget			
1B	**Capital Outlays**							
2B		New Capital Facilities						
3B		Renewal and Replacement Facilities						
4B								
5B								
6B								
7B								
8B	*Total Capital Outlays (total lines 2B to 7B)*		$	$	$	$	$	$
9B	**Capital Sources**							
10B		Loan/Bond Proceeds						
11B		Equity						
12B		Contributions/Connection fees						
13B		Draw from Replacement Reserve						
14B		***Grant Funds***						
15B								
16B								
17B								
18B	*Total Capital Sources (total lines 10B to 17B)*		$	$	$	$	$	$
19B	**NET CAPITAL OUTLAYS (line 8B less line 18B)**		$	$	$	$	$	$
20B	**Capital Financing**							
21B		Principal, Interest, and Return on Equity						
22B								
23B								
24B								
25B	*Total Capital Financing (total lines 21B to 24B)*		$	$	$	$	$	$

WORKSHEET B - CAPITAL BUDGET

Capital Outlays

New Capital Facilities. Enter the sum of all costs that are associated with purchasing or constructing new facilities for the water system whose costs involve multiple-year commitments. These items may include the pumping station, distribution pipes, storage tanks, treatment plant, and other buildings and equipment.

Renewal and Replacement Facilities. Enter the sum of all costs that are associated with purchasing or constructing renewal or replacement facilities for the water system that involve multiple-year commitments.

Other. Several blank lines are available to enter capital outlays of the system that are not included in the two previous categories.

Total Capital Outlays. Enter the sum of the capital outlays listed above.

Capital Sources

Loan/Bond Proceeds. Enter the amount of money the water system obtains through borrowing, including bank loans, the issuing of bonds, etc.

Equity. Enter the amount of contributions that the water system receives in exchange for a right, claim, or interest in the water system.

Contributions/Connection Fees. Enter the sum of funds that the water system receives from construction assistance contributions or from the imposition of fees on the extension of services.

Draw from Replacement Reserve. Enter the amount of money that the water system used from its replacement reserve to finance capital projects.

Other. Several blank lines are available to enter capital sources of the system that are not included in the previous categories. **Include any grant funds that are received.**

Total Capital Sources. Enter the sum of the capital sources noted above.

Net Capital. Subtract total capital sources from total capital outlays. Ideally, the net capital of the water system should equal zero. The goal should be to balance the flows of capital outlays and capital sources. If the net capital figure is positive the water system has inadequate capital sources to meet its capital outlays. If net capital is negative the water system has more funds than necessary to finance capital improvements. It is important to note that in a given year net capital may vary significantly due to the timing of cash flows. For example, the year in which a large bond issue is made, to pay for a multi-year construction project, capital sources may outweigh capital outlays significantly.

Capital Financing

Principal, Interest, and Return on Equity. Enter the amount that the water system repays annually on all debt and equity incurred to finance capital projects, including both principal and interest payments.

Other. Several blank lines are available to enter other capital financing of the system that is not included in the previous category.

Total Capital Financing. Enter the sum of all capital financing of the water system listed above.

WORKSHEET C - RESERVES BUDGET							
		Prior Year	Current Year	Year 1	Year 2	Year 3	Year 4
		Actual Budget	Annual Budget	Projected Budget			
1C	**Reserve for _____**						
2C	Annual Installment						
3C	Running Balance						
4C	Target Balance						
5C	**Reserve for _____**						
6C	Annual Installment						
7C	Running Balance						
8C	Target Balance						
9C	**Reserve for _____**						
10C	Annual Installment						
11C	Running Balance						
12C	Target Balance						
13C	**Reserve for _____**						
14C	Annual Installment						
15C	Running Balance						
16C	Target Balance						
17C	**TOTAL ANNUAL RESERVE INSTALLMENTS (total lines 2C, 6C, 10C, 14C)**	$	$	$	$	$	$
18C	**TOTAL RUNNING BALANCE (total lines 3C, 7C, 11C, 15C)**	$	$	$	$	$	$
19C	**TOTAL TARGET BALANCE (total lines 4C, 8C, 12C, 16C)**	$	$	$	$	$	$

WORKSHEET C - RESERVES BUDGET

Reserve for _____. Lines 1C, 5C, 9C, and 13C are available to enter the reserve accounts that the water system uses. Examples of reserve accounts include:

- **Operating Cash Reserve;**
- **Replacement/Depreciation Reserve;**
- **Emergency Reserve; and**
- **Debt Service Reserve.**

The annual installment to the reserve account should equal the desired balance of the reserve divided by the number of years before that balance needs to be reached. The desired or target balance should be sufficient to replace depreciated equipment, address the worst emergency situation, or support the issuance of debt. The amount that is desired or targeted for future needs should be noted on lines 4C, 8C, 12C, and 16C. Also, denote the current running balance of each reserve account (on lines 3C, 7C, 11C, and 15C).

Total Annual Reserve Installments. Denote the total amount of money that the water system allocates to all reserve accounts annually.

Total Running Balance. Denote the total amount of money in all reserve accounts.

Total Target Balance. Denote the total desired or targeted balance of all reserve accounts.

WORKSHEET D – REVENUE ANALYSIS

		Prior Year	Current Year	Year 1	Year 2	Year 3	Year 4
		Actual Budget	Annual Budget	Projected Budget			
1D	**Revenue Requirements**						
2D	Total Expenses (line 20A)	$	$	$	$	$	$
3D	Net Capital Outlays (line 19B)	$	$	$	$	$	$
4D	Total Capital Financing (line 25B)	$	$	$	$	$	$
5D	Total Annual Reserve Installments (line17C)	$	$	$	$	$	$
6D	**TOTAL REVENUE REQUIREMENT (total lines 2D to 5D)**	$	$	$	$	$	$
7D	Number of Connections						
8D	(000's) Gallons Sold						
9D	Revenue Requirement per Number of Connections (line 6D/line 7D)	$	$	$	$	$	$
10D	Revenue Requirement per (000's) Gallons Sold (line 6D/line 8D)	$	$	$	$	$	$
11D	**Revenue Sources**						
12D	Rate Revenue						
13D							
14D							
15D							
16D	**TOTAL REVENUE (total lines 12D to 15D)**	$	$	$	$	$	$
17D	**BUDGET SURPLUS (DEFICIT) (line 16D less line 6D)**	$	$	$	$	$	$
18D	*Total Revenue per Number of Connections (line 16D/line 7D)*	$	$	$	$	$	$
19D	*Total Revenue per (000's) Gallons Sold (line 16D/line 8D)*	$	$	$	$	$	$

WORKSHEET D - REVENUE ANALYSIS

Revenue Requirements

Enter the value of total expenses, net capital, total capital financing, and total annual reserve installments from the previous forms as noted.

Total Revenue Requirement. Together the items mentioned above encompass the revenue requirement of the water system. Enter the total of these items here.

Number of Connections. Enter the number of connections that the water system serves or expects to serve in future years.

(000's) Gallons Sold. In thousands, enter the total number of gallons of water the water system sells or expects to sell annually.

Revenue Requirement per Number of Connections. Divide the total revenue requirement by the number of connections.

Revenue Requirement per Thousand Gallons Sold. Divide the total revenue requirement by the gallons sold in thousands.

Current Revenue (NOTE: Future revenues are difficult to predict. Enter revenue values for years 1 to 4 only if the water system has the capability to accurately forecast these values).

Rate Revenue. Enter the total amount of revenue that the water system collects through the levying of rates on water usage.

Other. Blank lines are available to enter other sources of revenue. These sources may include, but are not limited to, the following:

- Bulk Water Rates;
- Fire Protection; and
- Fees and Charges (bad check fees, reconnect fees, meter testing fees, late payment charges).

If the water system has more sources of revenue than available blank lines, group similar revenues together into broader categories and note these groupings for future reference.

Total Revenue. Enter the sum of all revenue collected by the water system.

Budget Surplus (Deficit). Subtract the water system's total revenue requirement from its total revenue.

Total Revenue per Number of Connections. Divide the total revenue by the number of connections.

Total Revenue per Thousand Gallons Sold. Divide the total revenue by the gallons sold in thousand