



 Rural Community Assistance Corporation
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Strategic Advantages for Small Water Systems in Financial Planning and Rate Setting Methodology

Infrastructure Assistance Coordinating Council - IACC
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Welcome!

Dan Banner
(509) 860-5846
dbanner@rcac.org

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The RCAP Network



Western RCAP
Rural Community Assistance Corporation
916/447-2854
www.rcac.org

Midwest RCAP
Midwest Assistance Program
952/758-4334
www.mraprcac.org

Southern RCAP
Community Resource Group
479/443-2700
www.crg.org

Northeast RCAP
RCAP Solutions
800/688-1969
www.rcapsolutions.org

Great Lakes RCAP
WSOS Community Action Commission
800/775-9767
www.glacap.org

Southeast RCAP
Southeast Rural Community Assistance Project
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www.southeastrcap.org

Rural Community Assistance Partnership
800/321-7227 www.rcap.org



"Improving the quality of life in rural communities"

Financial Duties and Responsibilities

“Board Members have a **fiduciary duty** to assure that system revenues cover the **“true”** cost of water delivered.”



Basics

- Every board member should understand how to budget, how to read financial statements, what funding sources are available, and how to adjust rates.
- The more members who know what is going on financially in the utility, the better able they are to check each other and to plan for the future.

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Basics

- Remember: Whether your system is a not-for-profit, municipality, district, manufactured home park, etc., **it is supposed to run like a business.**
- This means that the full costs of providing service should be shared by the customers.

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Rate Policy Goals

■ Utility rate policy is almost never written anywhere but most people have a “feel” for what they want. Common policy goals are:

- Support low-income customers.
- Establish rates to ensure larger water users pay a “fair share” of costs.
- Ensure customers don’t waste water because of low cost.



Rate Policy Goals

- Reducing water use because of physical limitations in the system (LOS)
- Extend the date for system improvement (defer project costs - Asset Management)
- Water conservation
- Economic development



Rate Policy

- Be able to identify your rate policies!
- Be able to explain how **you** arrived at your rate structure
- **If you can generally answer these questions, you have the legal high ground (assuming not prohibited)**
- Customers do not need to like the answer!
- Above all else....

BE NICE!



All Public Water Systems rely on:

- Adequate user rates based on sound financial principles.
- Budgetary and rate setting best practices for utilities.
 - Basic financing and rate setting methodology
 - How to create support for rate adjustments in the community.
 - How utility rates are the key to a utilities financial sustainability.



You’re responsible for:

- **Planning the system’s financial future**
- Developing and approving the system’s annual expense budget
- **Making sure the system’s revenue covers all its expenses**
- Making sure financial records are kept and reviewed monthly



THE CORE MESSAGE

- Establish the budget target **FIRST!**
- **Then set the rate and rate structure**



Budget development has two basic parts

- **Identify expenses**

- Administrative
- Operations
- Reserves
- New construction

- **Identify revenues**

- Cash carryover
- Operating
- Non-Operating
- Loans / Grants



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Operating Ratio

- Revenues ÷ Actual Expenses

- Should be at least 1.0

- May need to show planning for 1.3 in order to borrow money

- Operating Ratio

- Total Operating Income/*O&M
 - (*less depr., interest & debt service - Ratio's should be greater than 1.0)

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Public Relations

- You should be able to provide an answer to budget questions!

Customers don't necessarily need to like it!



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Public Relations – What is:

- Capital Depreciation

- Equipment Replacement Fund

- Capital Improvement Program (CIP)

- New Construction / Projects

- Debt Service

- Loan Repayment Fund

- Operations & Maintenance

- Operator, dues, billing, etc.

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Budget Balancing

- You must put money that is not used to **reduce rates** into a fund of some kind

- **Reserve funds must be clearly identified** so others will NOT spend the money on something else!!

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System Financial Reserves Have Many Purposes:

- Planned Equipment Repair & Replacement (R&R)...**Depreciation**

- Emergency Repairs

- Planned System Expansion and Infrastructure improvements (Capital Improvement)

- Reserves for Revenue Fluctuations

- Operating Reserves ensure revenues!**

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Operating Reserve

- The “best” reserve for small water systems
- Compensates for cash flow variations
- Includes reserve for unplanned expenses **other than emergencies**
 - Increase in electrical / operational costs
 - Operating costs due to Leaks
 - Extra callouts etc.



Emergency Reserve

- **Unplanned** maintenance
- Mainline break on New Year’s eve
 - Early pump failure
 - Vandalism (VA/ERP)
- Often lumped into operating reserve; better on its own line item in budget



Debt Service Reserves



- If you borrowed money to build your system, chances are you are obligated to place money in a **Debt Service Reserve** until an agreed upon dollar amount is reached.
 - This is in addition to your loan repayment.
 - To be used **ONLY** in an emergency!



Budget Worksheet Should Have Several Columns:

- Last Year’s Actual Expenses
- Current Year’s Forecast Expenses
- Next Six Years’ Estimated Expenses
 - 6 years often required for state loans
 - 2-3 years is minimum for small systems
 - Replacement costs out to 15-20 years should be considered!**



Things to Help Balance the Budget - Without Raising Rates:

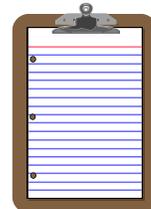


- Collect overdue Accounts
- **Get serious about leak detection!**
- Make sure water meters work
- **Update fees, deposits and service charges**
- Improve customer billing (WUE)



Monthly Financial Report

- As a minimum should include:
 - Revenues, expense’s, transfers to reserves and operating gain **(loss)**.
 - Should show the annual budget amount, the current month’s expenditures, and year-to-date expenditures. **(Bottom Line)**



MONTHLY BUDGET REPORT						
Report Month:	Month			Fiscal Year-to-date		
	Budget	Actual	Variance	Budget	Actual	Variance
REVENUES						
1 Rate Revenue	\$3,215	\$2,850	(\$365)	\$9,645	\$10,121	\$476
2 Withdrawal from Reserves		\$0			\$0	
3		\$0			\$0	
4		\$0			\$0	
5 New Connection		\$1,200		\$0	\$1,200	\$1,200
6		\$0			\$0	
7 TOTAL Revenues	\$3,215	\$4,050	\$835	\$9,645	\$11,321	\$1,676
EXPENSES						
8 Personnel Costs w/benefits	\$2,200	\$2,800	\$600	\$6,600	\$7,200	\$600
9 Petty Cash	\$50	\$40	(\$10)	\$150	\$87	(\$63)
10 Utilities - Power	\$425	\$401	(\$24)	\$1,275	\$1,190	(\$85)
11 Gas		\$0			\$0	
12 Telephone	\$54	\$57	\$3	\$162	\$157	(\$5)
13 Sewer		\$0			\$0	
14 Chemicals, Treatment, and Monitoring	\$80	\$65	(\$15)	\$240	\$195	(\$45)
15 Outside Services - Operator, Backhoe, Equip Rentals	\$550		(\$550)	\$1,200	\$1,200	\$0
16 Small Equipment, Materials, and Parts	\$55	\$35	(\$20)	\$165	\$90	(\$75)
17 Purchased Water - Wholesale		\$0			\$0	
18 Transportation		\$0			\$0	
19 Office Supplies-Postage, Paper, Copies	\$127	\$118	(\$9)	\$381	\$367	(\$14)
20 Insurance - Vehicles, Liability, Workers Comp	\$167	\$167	\$0	\$501	\$501	\$0
21 Customer Billing and Collection		\$0			\$0	
22 Income Tax		\$0			\$0	
23 Fees - Permits		\$0			\$0	
24		\$0			\$0	
25 Professional Services - Engr, Acctg, Legal		\$0			\$0	
26		\$0			\$0	
27 Transfer to Reserves		\$0			\$0	
TOTAL EXPENSES	\$3,708	\$3,683	(\$25)	\$10,674	\$10,987	\$313
BUDGET BALANCE (Revenues - Expenses)	\$493	\$367	(\$126)	\$1,029	\$334	(\$695)

Summary

- A budget is a tool to help guide the decision makers in managing their system.



It is only as good as it has been prepared, understood and used.

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Rate Structuring

How hard can it be?

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Rate Structure - Unmetered

FLAT FEE RATE

- Advantages:
 - Simple billing -No meters
- Disadvantages:
 - May be unfair, either way!
 - No compensation for unusual conditions: drought / leaks
 - No water conservation initiative

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Rate Structure - Unmetered

FLAT FEE RATE

Q: What's the financial risk with a flat rate structure?
Higher than normal use incurs a budget deficit!

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Rate Structure - Unmetered

- Determine total annual costs **include reserves**
- Divide by 12, divide by # of connections = monthly service charge for each connection
- Review periodically for inflation**

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Rate Structure - Metered

Monthly service charge + use

- **UNIFORM BLOCK RATE**
- **INCREASING BLOCK RATE**
 - Price of water increases
- **DECREASING BLOCK RATE**
 - Price of water decreases

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Rate Structure - Metered

- **UNIFORM BLOCK RATE**
 - Advantages:
 - Easy to administer
 - May encourage water conservation
 - May be fair: Use more = pay more
 - Disadvantages:
 - May discourage economic development
 - May be unfair if set too low or high

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Rate Structure - Metered

- **UNIFORM BLOCK RATE**
- Identify the variable expenses
- **Determine the gallons sold (billable)**
 - Likely to be at least 10-25% less than produced
- **Set commodity rate**

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Legal Test

“Billing Rules” must be **codified** and must be evenly applied within a customer class

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Distribution of Costs

- Identify revenue target
- Figure out how to best **distribute all costs** to customers
- Differing costs to customer class

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Distribution of Costs

- **Commodity-Demand Method:**
 - 4 primary cost components
 - **Commodity costs**
 - **Demand costs**
 - **Customer Costs**
 - **Fire protection costs**

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Fixed Costs

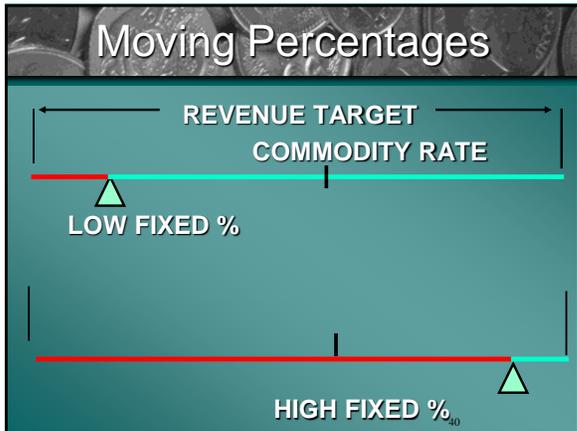
- Costs incurred regardless of the amount of water produced
 - May provide for current and future needs.
- 50%-70% of budget as “true costs” typical in very small systems!

Fixed Costs

- Fixed costs may include:
 - Debt Service
 - Operations and Maintenance
 - Administration (General / Accounting)
 - Reserve Funds (Future Repairs / Construction)

Budgets and Rates are Defensible!

Line Item	Amount	Fixed %	Per Customer (300)	
Wages and Benefits	\$35,000	60	\$21,000	\$5.83
Taxes	\$2,400	40	\$960	\$0.27
Office Supplies	\$1,325	60	\$795	\$0.22
Maintenance & repairs	\$4,000	20	\$800	\$0.22
Utilities		10		
Auto expense		50		
Chemicals		10		
Other Supplies		25		
Professional fees		10		
Insurance / Bonds		100		
Debt Service		100		
Reserves		100		
Miscellaneous		20		
			\$54,357	\$15.01



Variable Costs

- Recovered through “Commodity Rate”
- Cost of water “produced” ÷ amount of water sold
 - Usually per 1000 gallons or 100 cubic feet (748 gallons)

The Revenue **TARGET**

Apportioning charges for water use based upon the “average” monthly residential customer:

ERU

The Revenue TARGET

There are two “types” of ERUs

- Actually determined from usage records
- Projected from engineering standards

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ERU Methodology

- Determine last year’s average residential monthly use in gallons
- Compare this usage to large water users
- Determine billing “rules”
- Divide fixed costs by ERUs

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ERU Distribution

Billing Rule: 1 base charge per customer (includes 5000 gallons “free” water) + commodity rate

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Rate Structure - Metered

- INCREASING BLOCK RATE
 - Advantages:
 - May promote water conservation
 - may protect limited water supplies
 - may reduce some loading to WWTP
 - Fairness – may accurately allocate costs; can subsidize groups
 - Disadvantages:
 - May discourage economic development

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Rate Structure - Metered

- INCREASING BLOCK RATE
 - Has “Tiered” system
 - Each block increases in price
- ‘SOOoooo, how do you set the tiers?’

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Tiered Commodity Rates

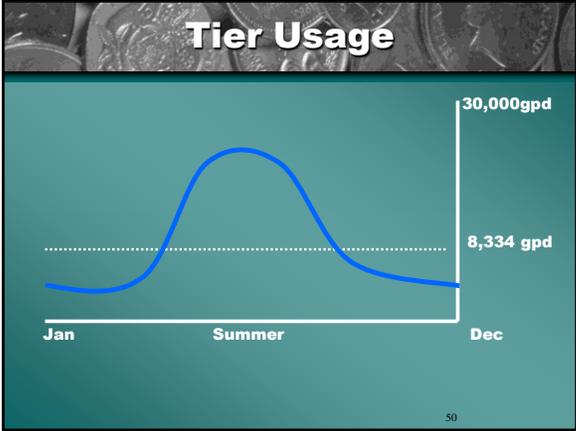
- Determine the reason for the tiers!
 - Distribution of costs
 - Decrease in water use
- Determine where you can “sell” the tiers
 - Political impact
 - Number and type customers

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Tiered Commodity Rates

- Usage groups
 - 0- 2000 Gals. \$9.50 (Min bill)
 - 2000 - 5000 Gals. \$1.50 per 1000
 - 5000 – 10,000 Gals. \$1.75 per 1000
 - 10,000 – 20,000 Gals \$2.00 per 1000
 - Over 20,000 Gals \$2.25 per 1000

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Tiered Commodity Rates

Where did the ERU figure come from?

Low water users | Higher water users

Lower /Average users | Very high

Large number | Low users | Average / High users

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What's a "low water user"?

- 'Grammy and Granddad (G&G), small home **3000 gals / mo** (36,000 gals year)
- G&G; Jun – Aug , **12,000 gals / mo** (36,000 gals year)

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Rate Structure - Metered

- INCREASING BLOCK RATE**
- May include Seasonal rate

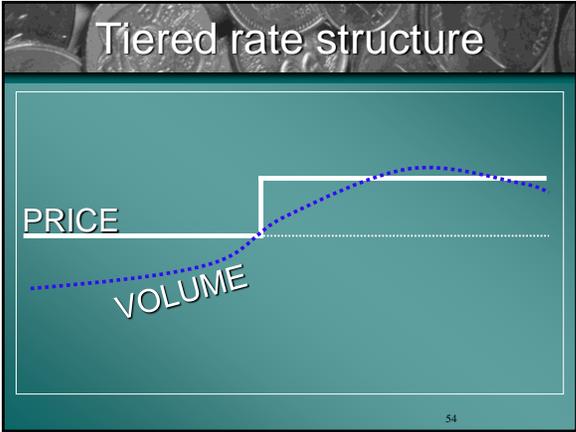
RESIDENTIAL

Oct-Apr 0-700ft³: \$0.86 700-1400ft³: \$1.12 1400ft³+: \$1.57
 May-Sep 0-700ft³: \$1.10 700-1400ft³: \$2.20 1400ft³+: \$2.80

COMMERCIAL

0-1400ft³: \$1.10 1400ft³+: \$3.50

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- ### Conservation Pricing
- **Adding a seasonal tier**
 - Break out use data for season
 - Subtract use from annual use
 - Set rate conservation structure
 - Subtract conservation revenues from annual budget
 - Set rate structure for remaining \$\$
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