



Smart Management for  
Small Water Systems

# Setting the Right Rates for Your Water System

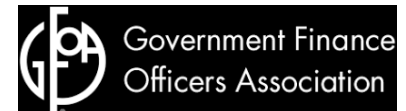
South Burlington, VT  
October 4, 2018



UNC  
ENVIRONMENTAL  
FINANCE CENTER



NADO  
NATIONAL ASSOCIATION OF DEVELOPMENT ORGANIZATIONS  
RESEARCH FOUNDATION



*This program is made possible under a cooperative agreement with the US EPA.*



*This project has been funded wholly or in part by the United States Environmental Protection Agency under assistance agreement A18-0408-001 to the University of North Carolina at Chapel Hill. The contents of this document do not necessarily reflect the views and policies of the Environmental Protection Agency, nor does the EPA endorse trade names or recommend the use of commercial products mentioned in this document.*



# Housekeeping



# CEU Certificates

**If you need a CEU certificate, you will need to confirm the following on the roster today before you leave:**

- Is your name spelled correctly?
- Did you provide an email address UNIQUE TO YOU? A unique email address is required to receive your certificate.
- Did you mark the checkbox that you need a certificate?

Within 30 days of the training, you will receive an email with instructions to print your certificate. Emails from EFCN may be blocked or go to your Junk mail. To avoid this issue, add [Smallsystem@syr.edu](mailto:Smallsystem@syr.edu) to your email Contacts or check your Junk mail frequently.

EFCN will apply to the water operator state licensing agency for CEU preapproval when applicable. You may be awarded CEUs by your agency. It is your responsibility to confirm with the agency that training meets relevancy criteria established for your license type as some agencies may not apply CEUs to your license if the training topic is not relevant to your position.

**EFCN follows the IACET Standard of CEU calculation.**

0.1 CEU = 1 Contact Hour or 1 Professional Development Hour

**Questions?** Please contact [Smallsystem@syr.edu](mailto:Smallsystem@syr.edu)

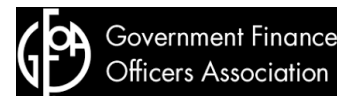


# Environmental Finance Center Network (EFCN)

The Environmental Finance Center Network (EFCN) is a university-based organization creating innovative solutions to the difficult how-to-pay issues of environmental protection and improvement. The EFCN works with the public and private sectors to promote sustainable environmental solutions while bolstering efforts to manage costs.

# The Small Systems Program Team

- Environmental Finance Center at The University of North Carolina at Chapel Hill
- Southwest Environmental Finance Center at the University of New Mexico
- Syracuse University Environmental Finance Center
- Environmental Finance Center at Wichita State University
- EFC West
- Environmental Finance Center at the University of Maryland
- New England Environmental Finance Center at the University of Southern Maine
- Great Lakes Environmental Infrastructure Center
- Government Finance Officers Association (GFOA)
- National Association of Development Organizations (NADO)

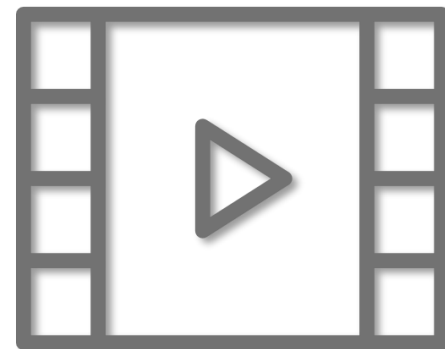
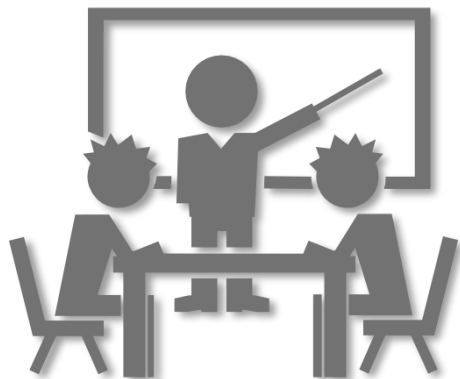




Smart Management for  
Small Water Systems

# Smart Management for Small Water Systems Program

**FREE**



# Areas of Expertise



Asset Management



Rate Setting and Fiscal Planning



Leadership Through Decision-making and Communication



Water Loss Reduction



Energy Management Planning



Accessing Infrastructure Financing Programs



Workforce Development



Water Conservation Finance and Management



Collaborating with Other Water Systems



Resiliency Planning



Managing Drought

A blue-tinted photograph of industrial machinery, possibly a large pipe or valve, serves as the background for the top portion of the slide.

# 30 Second Introductions

1. Name?
2. Organization?
3. Responsibility?
4. One issue you face?



# Workshop Objectives

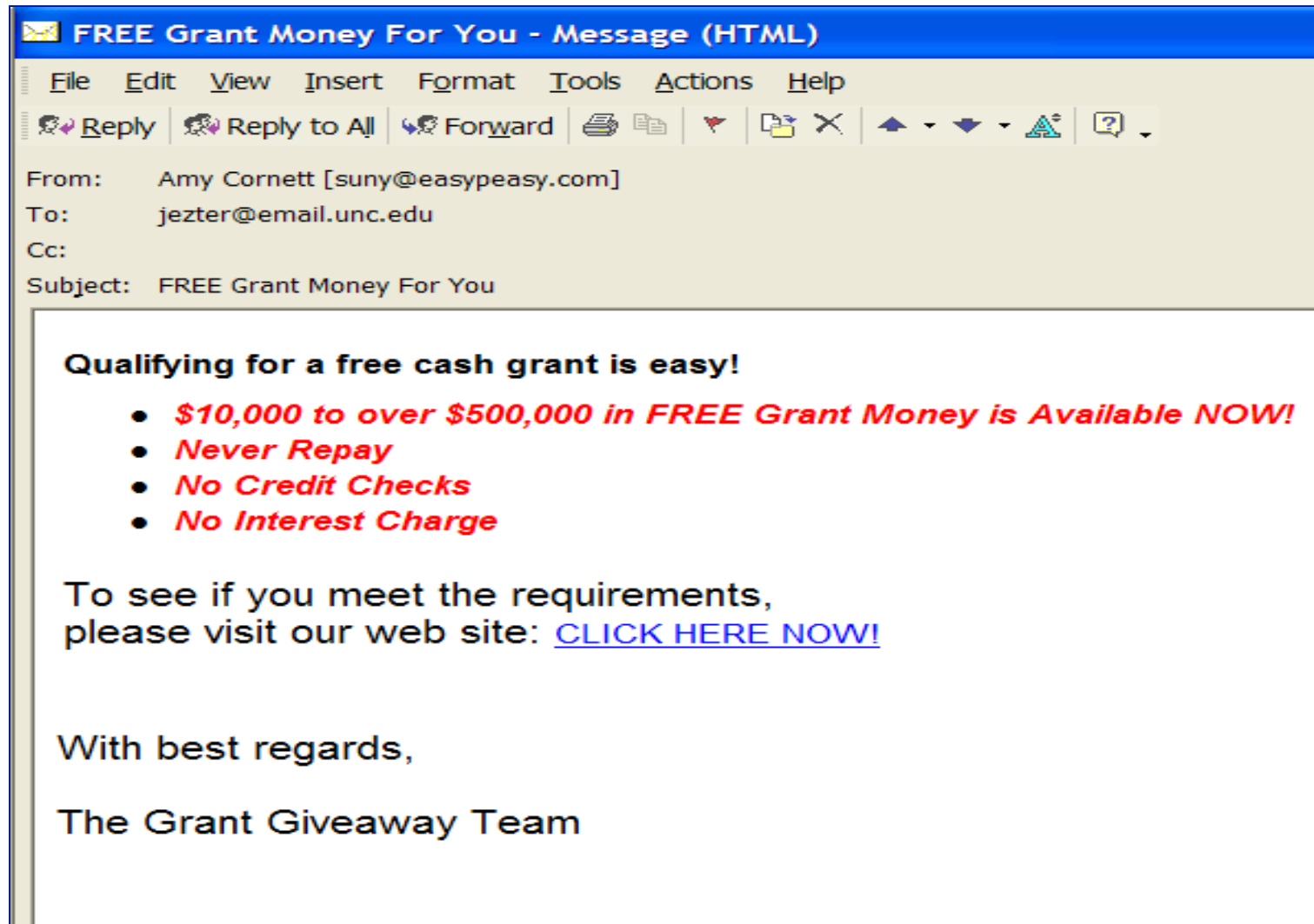
- Understand common rate setting objectives for water systems
- Learn how to structure rates to meet those objectives
- Provide forum for sharing finance and management perspectives, ideas, and experiences



# Agenda

- Infrastructure Funding Programs
- Rate setting objectives
- Calculating costs for your water system
- Setting rates that cover the full cost of operations
- Achieving other system objectives

# Topics Not Covered





World » Nigeria's anti-corruption unit finds \$43 million cash in Lagos apartment

Live TV

U.S. Edition +



# Nigeria's anti-corruption unit finds \$43 million cash in Lagos apartment

By Yemisi Adegoke, CNN

Updated 10:03 AM ET, Fri April 14, 2017



Source: CNN

Watch: Millions seized from Nigerian apartment 01:14

## Story highlights

Nigeria's anti-corruption agency discovered \$43 million in cash at a Lagos apartment

This is the latest in a string of busts thanks to a new whistleblowing policy

**Lagos (CNN)** — The Nigerian anti-corruption unit discovered more than \$43 million in US dollars at an upscale apartment in Lagos.

The anti-graft agency said in a statement it raided the apartment Tuesday after a tipoff about a "haggard"

## Top stories



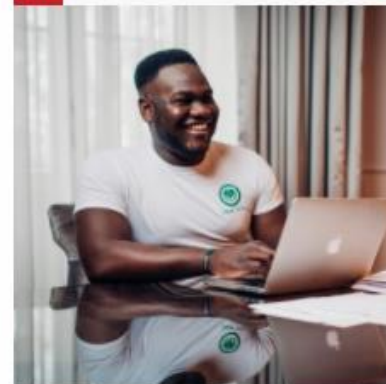
MLB team spent \$900M, still doesn't have a ring



Conservatives accuse the Pope of spreading heresy

Ad

WorldRamit



## How to keep close to home

"I still love Nigeria and stay in touch with friends and family there." - Akin.

# Infrastructure Funding Programs



40 Years



COBANK™

Building Better Neighborhood





# Rate Setting Objectives

Glenn Barnes

Environmental Finance Center

The University of North Carolina at Chapel Hill

919-962-2789

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# Session Objectives

- Understand common types of rate setting objectives
- Learn how to match rate structure elements with rate setting objectives

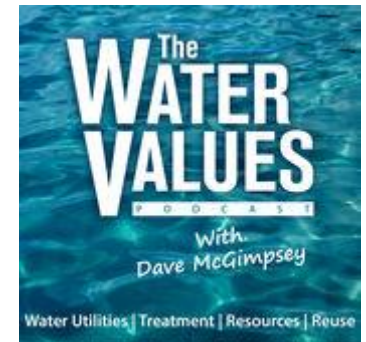


# Why are rates so important?

# Let's hear from an expert



Dave McGimpsey interviews George Hawkins, former CEO of DC Water, on the Water Values Podcast (Change Leadership episode)



<http://www.podcasts.com/the-water-values-podcast-44/episode/change-leadership-with-dc-water-ceo-george-hawkins>



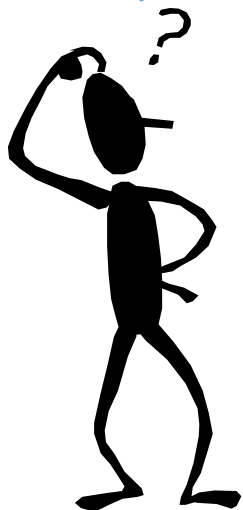


Rate structures are the primary way that we as water systems “communicate” with our customers

Here’s a question we hear often...



Are our  
rates right?

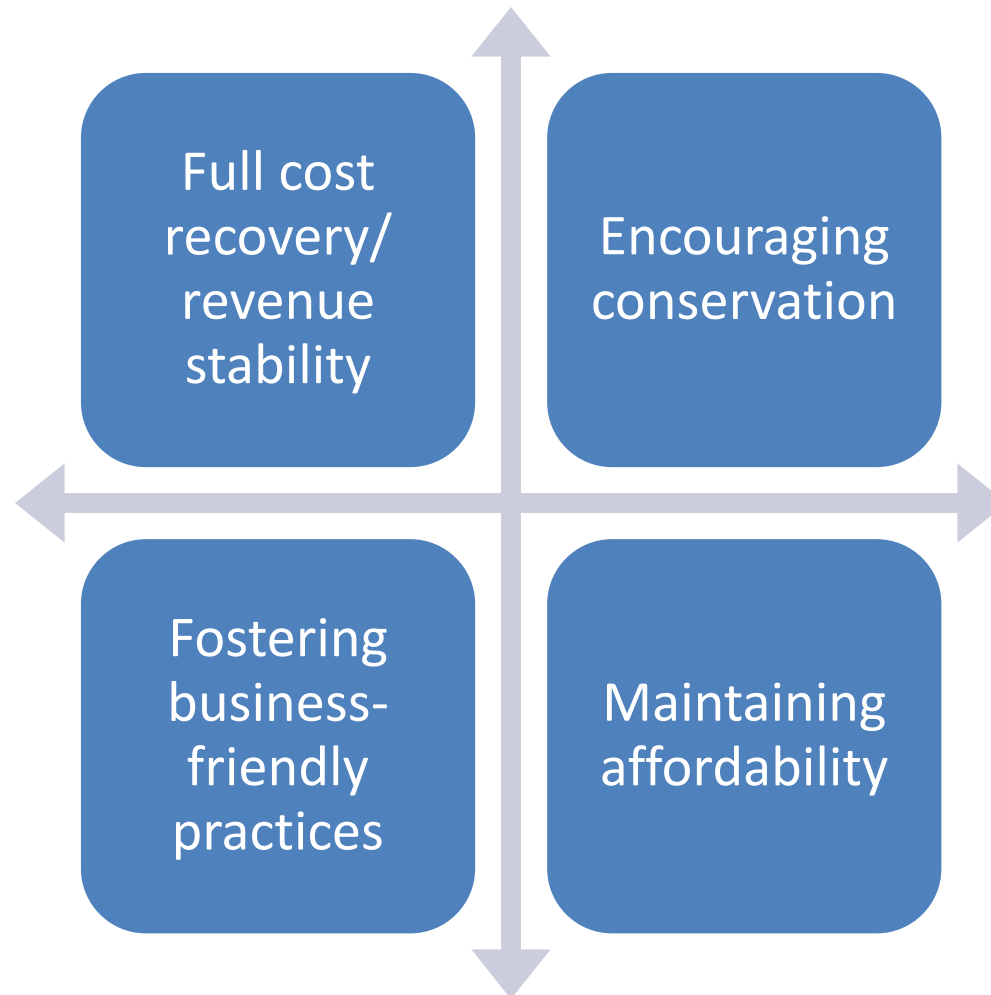


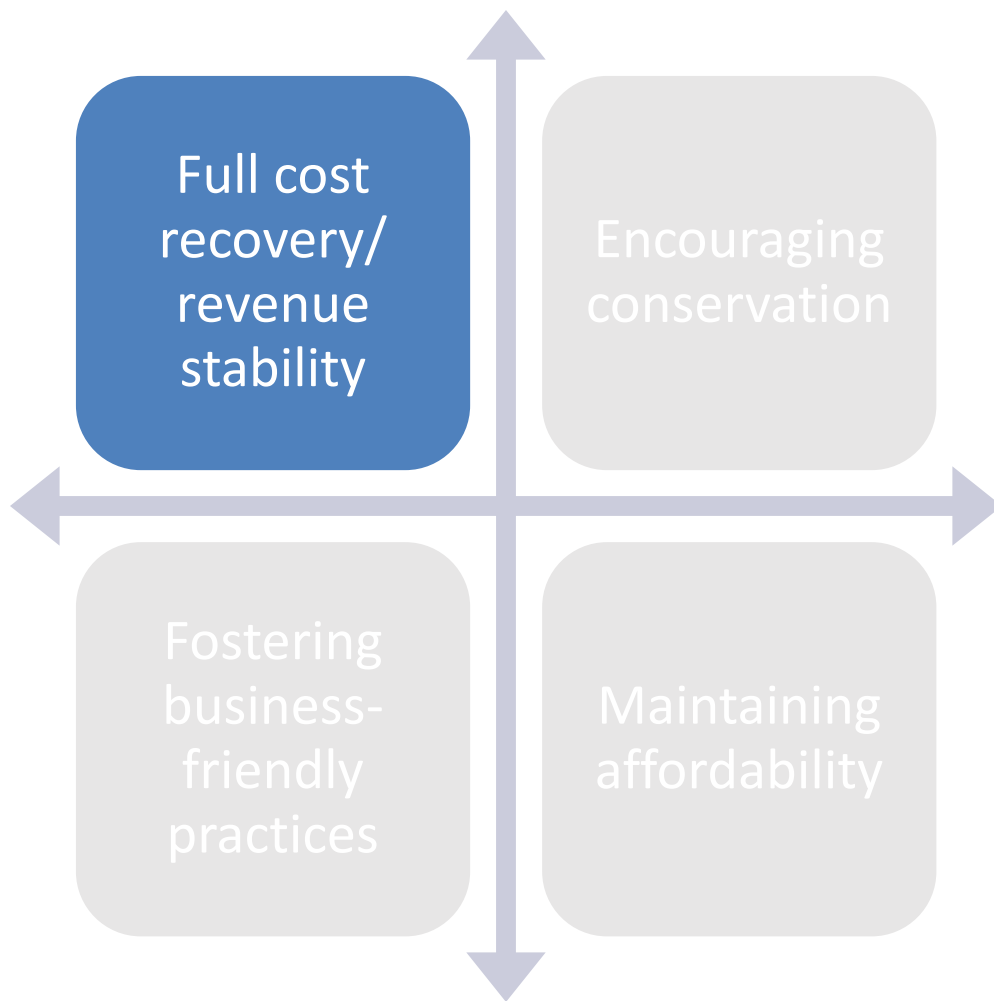
It depends...





# Water System Objectives





Bring in enough revenue to cover the full cost of running the water system:

- O&M
- Capital needs
- Debt service

Why do this?



Full cost  
recovery/  
revenue  
stability

Encouraging  
conservation

Fostering  
business-  
friendly  
practices

Maintaining  
affordability

Use pricing to  
encourage  
customers to  
reduce their water  
consumption

Why do this?



Full cost  
recovery/  
revenue  
stability

Encouraging  
conservation

Fostering  
business-  
friendly  
practices

Maintaining  
affordability

Use pricing to  
encourage  
businesses and  
agriculture to  
locate to your  
community or  
stay in your  
community

Why do this?



Full cost  
recovery/  
revenue  
stability

Encouraging  
conservation

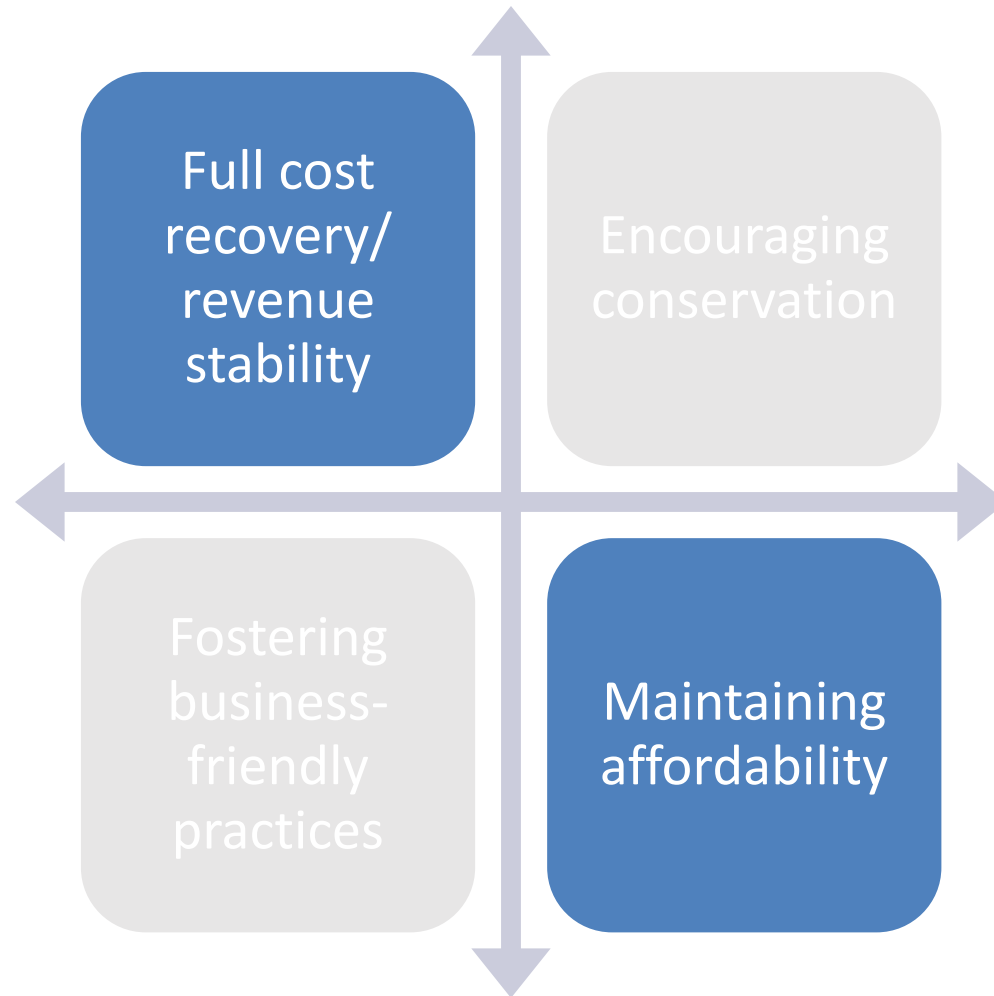
Fostering  
business-  
friendly  
practices

Maintaining  
affordability

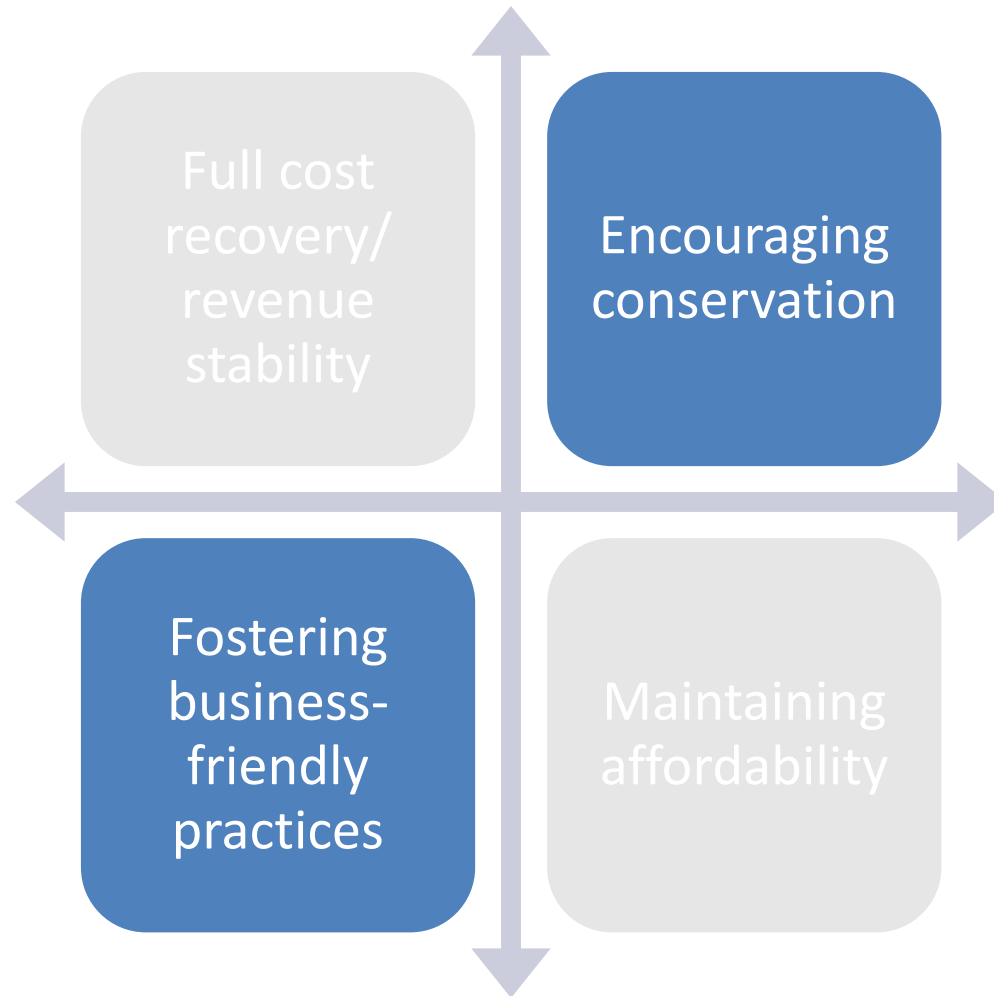
Ensure that all  
customers in your  
water system are  
able to afford  
enough water to  
live on

Why do this?

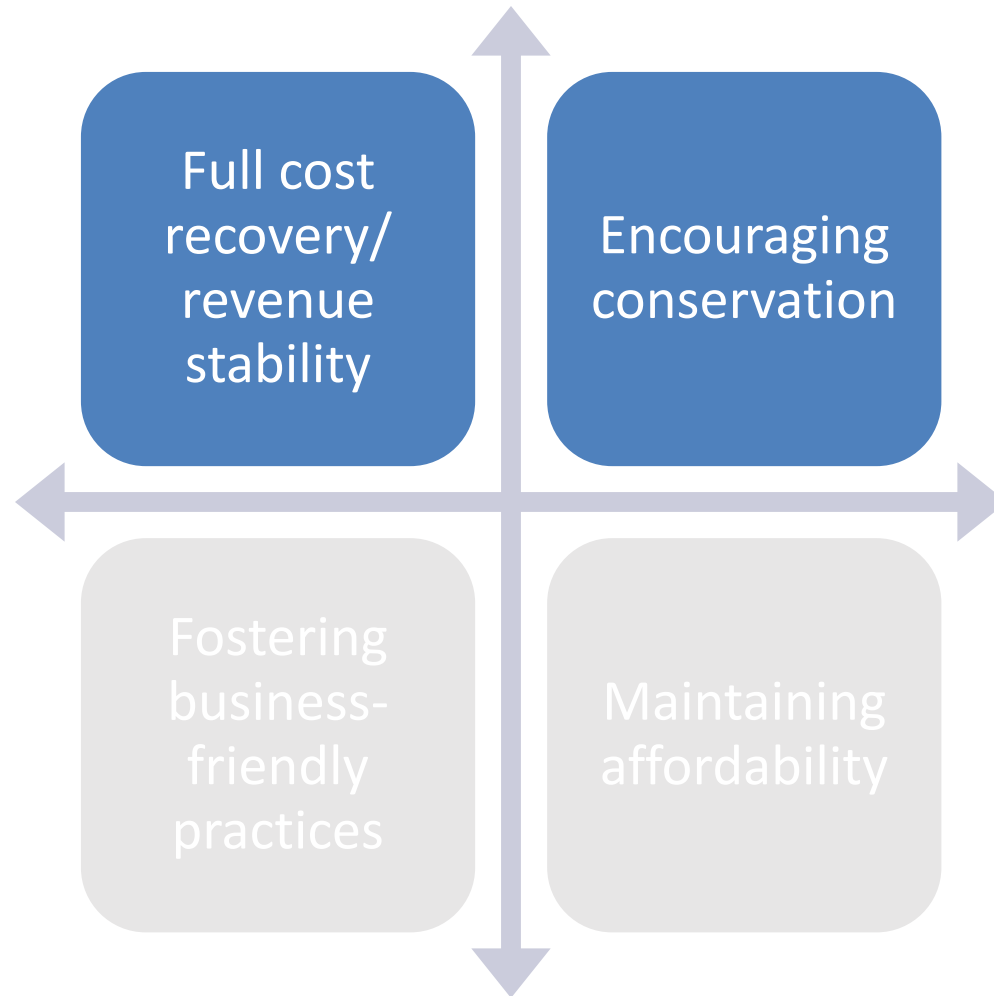
# Competing Objectives



# Competing Objectives



# Competing Objectives





# Rate Setting Objectives

Your rate structure is a tool to help you meet your rate setting objectives

- Frequency of billing
- Base charges and allowances
- Volumetric charges



## Exercise:

Matching rate setting objectives and rate structures with the circumstances of a small water system



# Irvindale, USA Exercise

Small town with a water and wastewater system



Population: 1,100



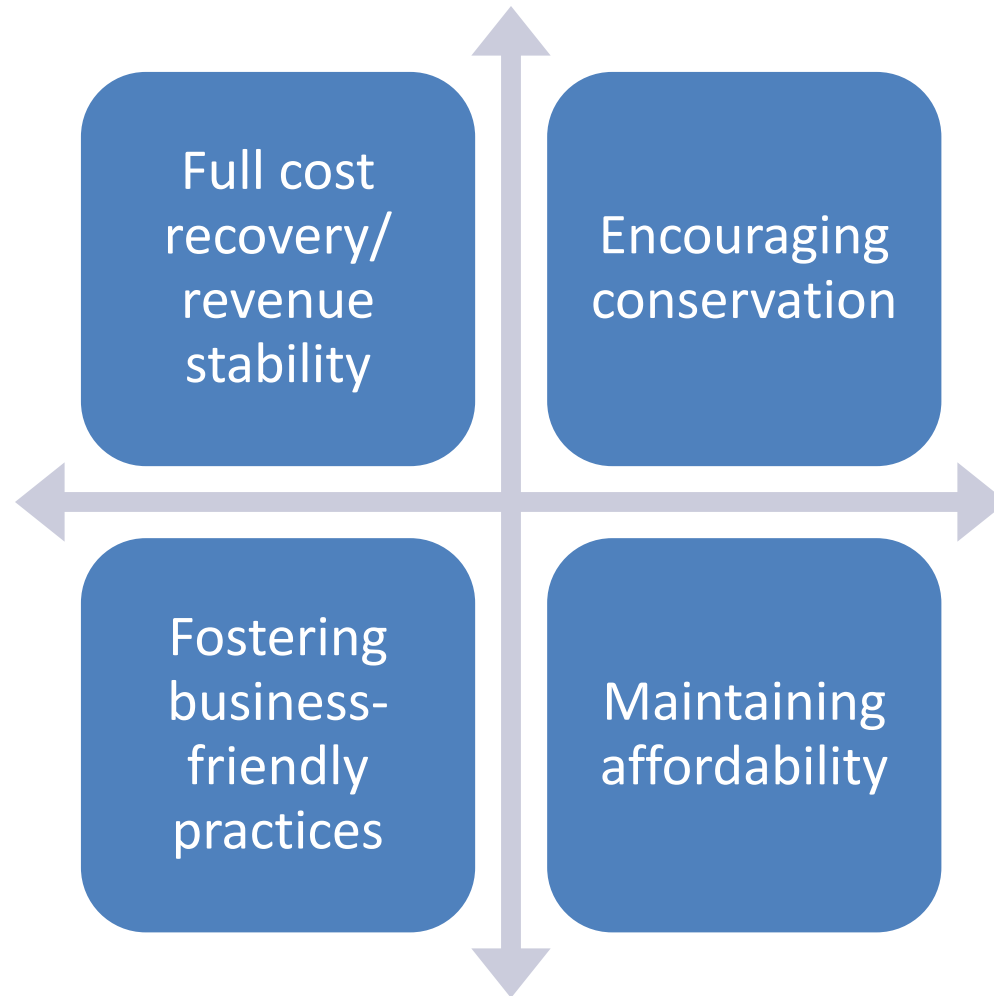
Service Connections: 450



MHI: \$24,432



# Which Water System Objectives?





# Rate structures for all customers

1. Flat charge for unlimited use
2. Increasing block
3. Decreasing block with large first block
4. High base charge, low uniform
5. Low base charge, high uniform



# Rate Setting Objectives

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