Revenues & Rate Structures

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Session Objectives

- Understand how to pay for the costs of running your water system
- Look more closely at rate structure

Will our rates provide sufficient cost recovery?

Are we following the applicable laws?

What exactly does this include?

Will revenues be resilient to changing water demands?

Will our customers be able to pay these rates?

Do these rates send the right signals to our customers, based on our objectives?

Will our customers understand these rates?

Are we allocating the costs to the right customers?

“Full Cost Pricing”

- Operations & maintenance expenditures
- Taxes and accounting costs
- Contingencies for emergencies
- Principal and interest on long-term debt
- Reserves for capital improvement
- Source water protection

Town of Jacksonville

We charge a flat rate of $ 15.00 monthly

P.O - Box 133
Jacksonville

We are a small town we do not have sewage

The Reef Condos – USVI

- Has residential units and commercial (shops and restaurants)

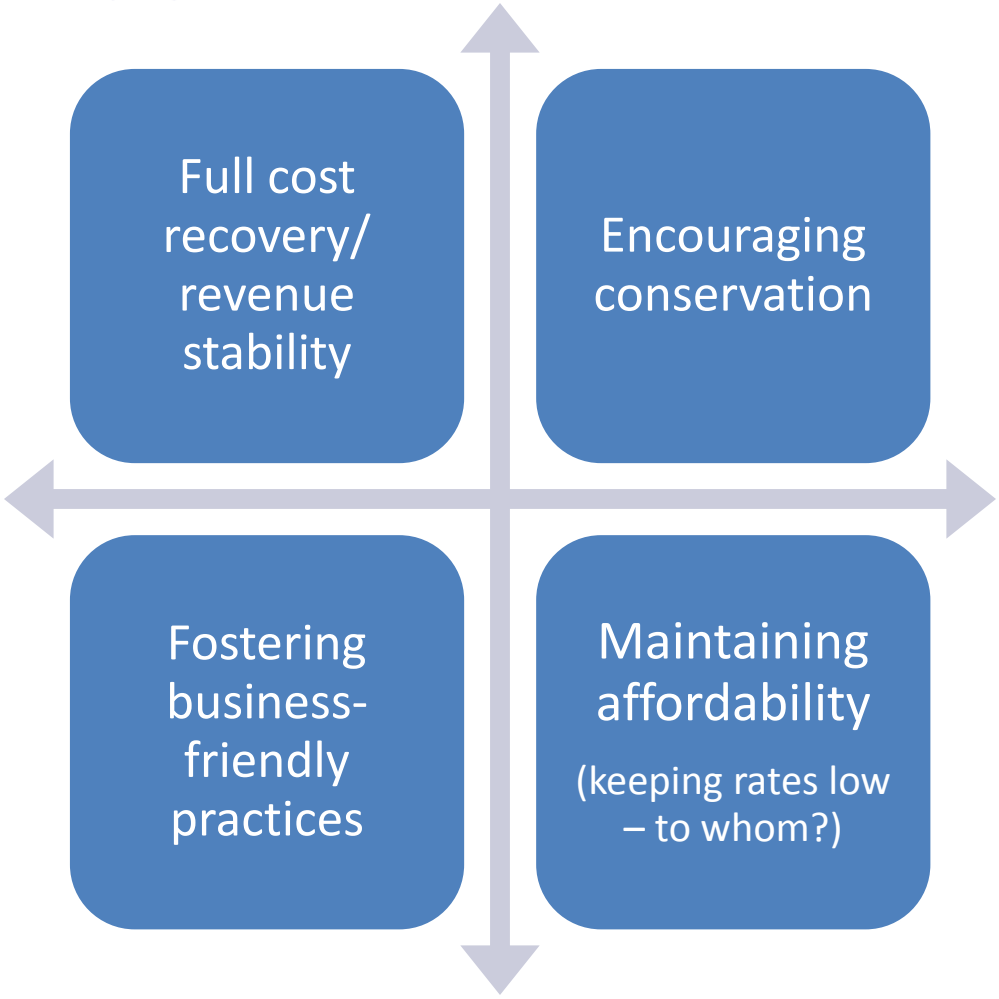
- Flat rate structure for residents
- Decreasing block for commercial
- Bulk rate for the next condo complex over

And then there is this...

Single outlet (Minimum charge)	**$193.00**
One Bath	**316.00**
1 ½ or 2 Bath	**349.00**
2 ½ Bath	**379.00**
3 or more Baths	**413.00**
Additional apartment/same service	**316.00**
Swimming pool	**126.00**
Each Boat slip with water available	**16.00**
Each Rental or Commercial Mooring	**6.15**
Each restaurant/snack bar seat	**16.00**

(Annual Rates)

Rank Your Rate Setting Objectives



Elements of Rate Structure Designs

1. Customer classes/distinction
2. Billing period
3. Base charge
4. Consumption allowance included with base charge
5. Volumetric rate structure
6. (If applicable) Number of blocks, block sizes and rate differentials
7. Frequency of rate changes

Customer Classes/Distinctions

- One rate structure for all
- Target: All are equal

Brentwood Water Corp., NC

Monthly Minimum:	$16.50
Water Included w/ Minimum Bill:	1,500/gallons
Additional Water	$5.55 per thousand gallons

Customer Classes/Distinctions

- Separate rate structure for residential, irrigation, commercial, industrial, governmental, or wholesale customers

- Target: Specific type of customer

City of Stockbridge, GA

Residential

0 through 4,000 gallons	$ 5.27 Per Thousand
4,001 through 9,000 gallons	$ 8.10 Per Thousand
9,001 gallons and up	$ 10.90 Per Thousand

Commercial, Apartments and Mobile Home Parks

0 through 10,000	$ 6.69 Per Thousand
10,000 and up	$ 8.03 Per Thousand

Irrigation

Per thousand gallons	$ 10.72

Hydrant Meter

Per thousand gallons	$ 10.72

Customer Classes/Distinctions

- One rate structure, but with different base charges based on meter size

- Target: Non-residential or multi-family housing

Town of Mount Pleasant, NC

Water Meter Size	0 to 2,000 Gallons	Gallons Over 2,000
Inside Town		
5/8” or 3/4”	$22.36	$4.08 /1000
1”	$41.16	$4.08 /1000
1 ½ “	$113.76	$4.08 /1000
2” and up	$219.36	$4.08 /1000
Outside Town		
5/8” or 3/4”	$39.13	$7.14 /1000
1”	$72.03	$7.14 /1000
1 ½”	$199.08	$7.14 /1000
2” and up	$383.88	$7.14 /1000

Customer Classes/Distinctions

- Different rates for customers outside municipal limits/service area boundaries

- Target: “Outside” customers

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Customer Classes/Distinctions

- Negotiated rate structure with individual high-use customers (typically an industrial customer)

- Target: Only one customer

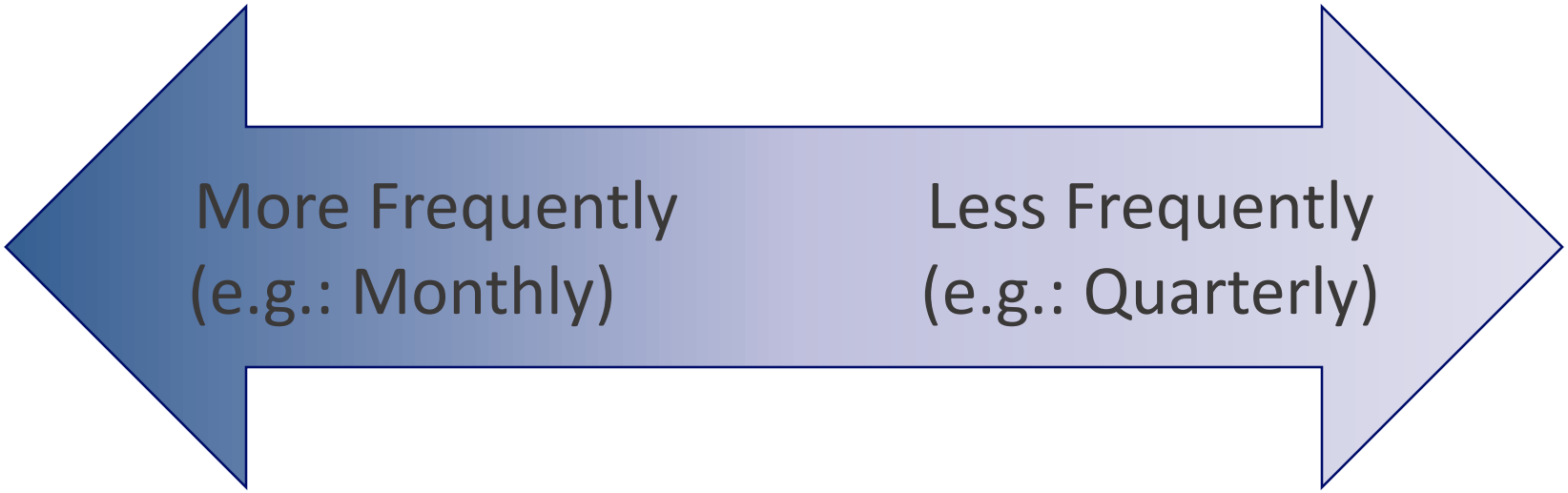
City of Clio, AL

SIGNIFICANT USER: **(High volume or High Strength Users)**

The City of Clio, Alabama via official action of its City Council reserves the right to enter into separate contracts with significant users on a case by case basis for the purpose of setting and determining a monthly charge or rate for the use of the public sewer system. Said monthly rate and associated fees may be computed upon a different basis than set forth in the paragraphs immediately proceeding. Such contract(s) shall be entered into by means of a resolution duly adopted by the City Council. For purposes of this Sewer Ordinance; unless amended by the City Council, a significant user shall be deemed any non-residential user who (1) has a water consumption of 50,000 gallons or more per month and/or (2) whose wastewater strength exceeds what is generally considered normal residential wastewater.

Significant Users determined to date are: Easterling Correctional Facility
(Ord. 2008-01 $1.75 per thousand; Ord. 2009-10 $2.40 per thousand; Ord. 2012-04 $2.90 per thousand)
Effective June 1, 2015 Easterling Correctional Facility: $3.40 per thousand. This ordinance.

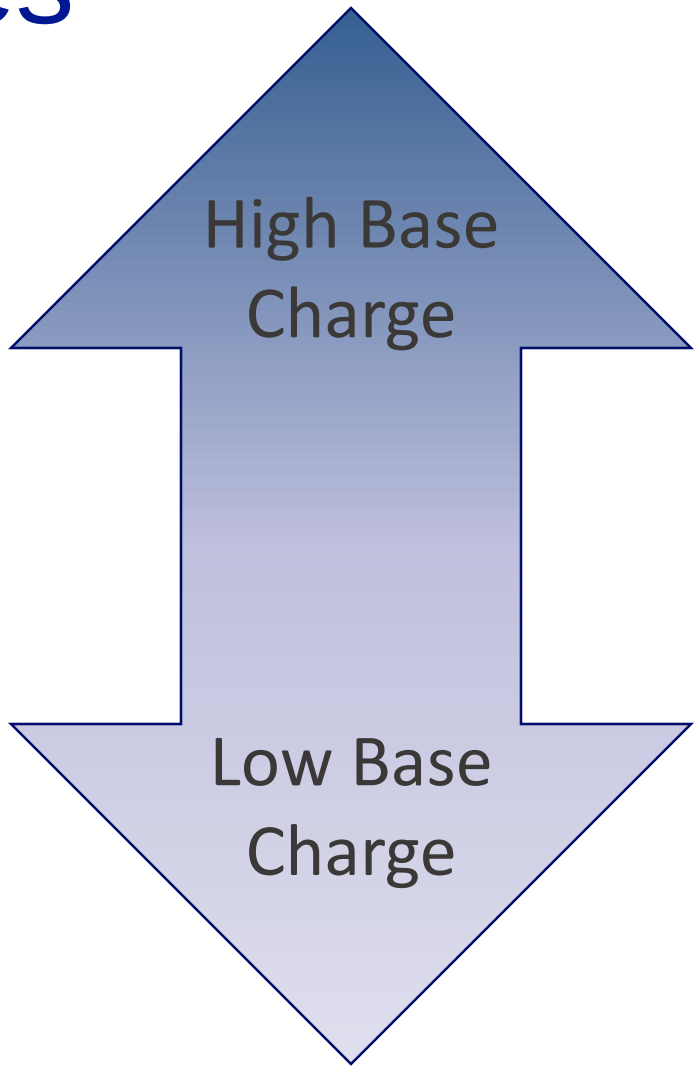
Billing Period



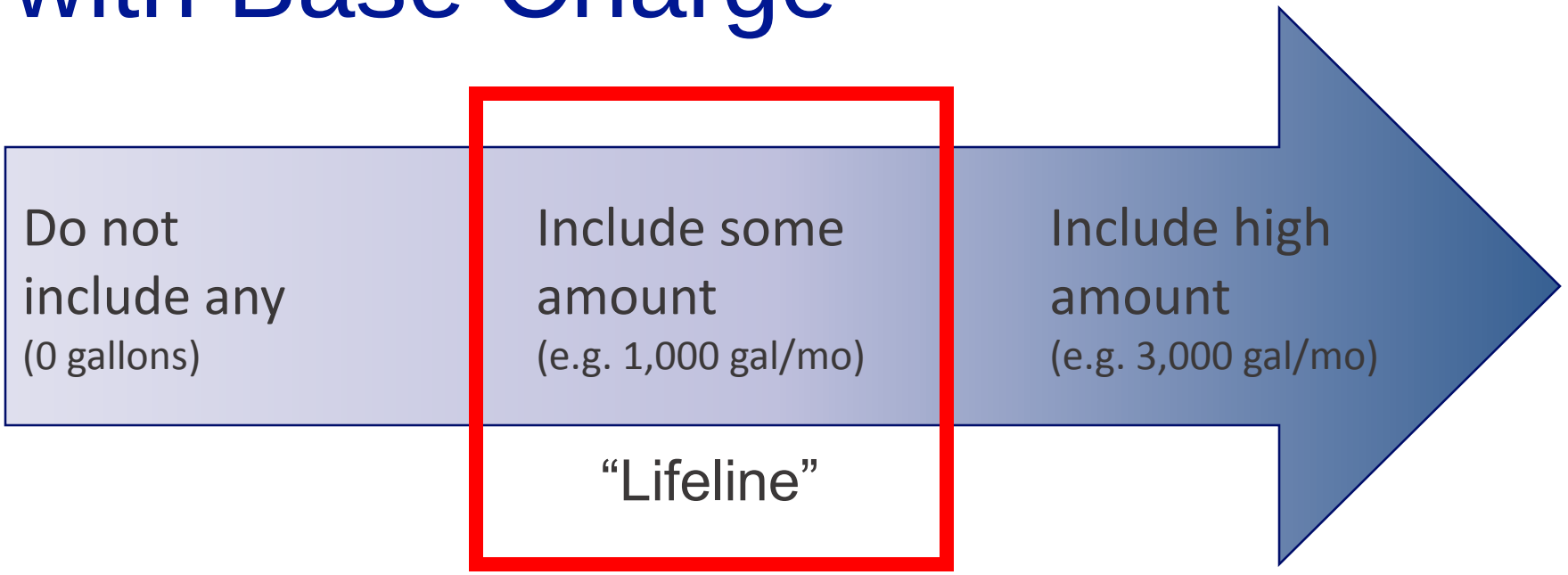
Suggestion: Use a monthly billing period if you can afford it

Base Charges

Suggestion: Smaller utilities should lean towards higher base charges



Consumption Allowance with Base Charge



Suggestion: For systems with low base charges, do not include any consumption allowance. For systems with high base charges but wish to encourage conservation, keep consumption allowance low, if any.

Northampton County, NC

USER FEE / Residential	$19.50
RATE PER THOUSAND/GALLONS 0,001-10,000	$5.00
RATE PER THOUSAND/GALLONS 10,001-25,000	$5.50
RATE PER THOUSAND/GALLONS 25,001-50,000	$6.00
RATE PER THOUSAND/GALLONS 50,001-100,000	$6.50
RATE PER THOUSAND/GALLONS 100,000>	$7.00

USER FEE / Commercial	$25.50
RATE PER THOUSAND/GALLONS 0,001-10,000	$6.00
RATE PER THOUSAND/GALLONS 10,001-25,000	$7.00
RATE PER THOUSAND/GALLONS 25,001-50,000	$7.50
RATE PER THOUSAND/GALLONS 50,001-100,000	$8.50

City of Nashville, NC

Water - In Town

1st 1,000 gal.	$ 5.74
Each Additional	$ 4.18

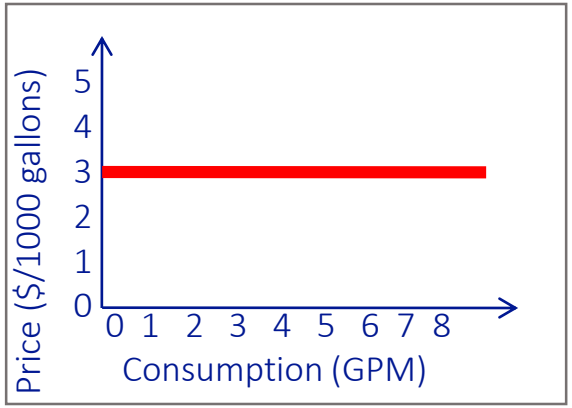
Town of Montrose, GA

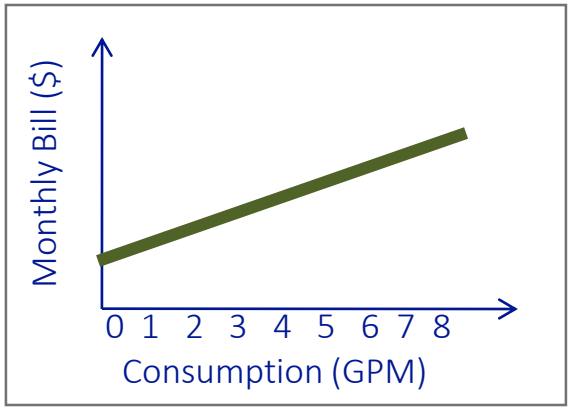
ACCOUNT TYPE	RATE	GALLONS
RESIDENTIAL	$20.00	10,000
COMMERCIAL	$30.00	15,000
INDUSTRIAL	$40.00	20,000
AGENT/SELLER	$50.00	2,500

Volumetric Rate Structure

Uniform (“Flat”) Rates

- Fair and simple





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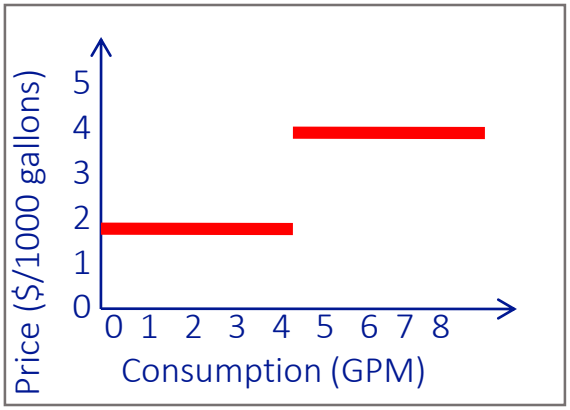
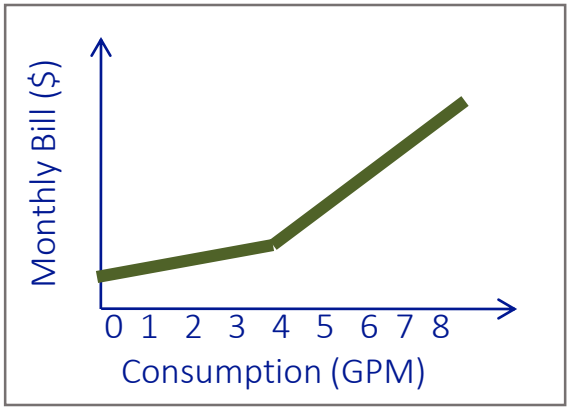
Volumetric Rate Structure

Increasing Block Rates

- Conservation-oriented
- Consider large families





Napu'u Water, HI

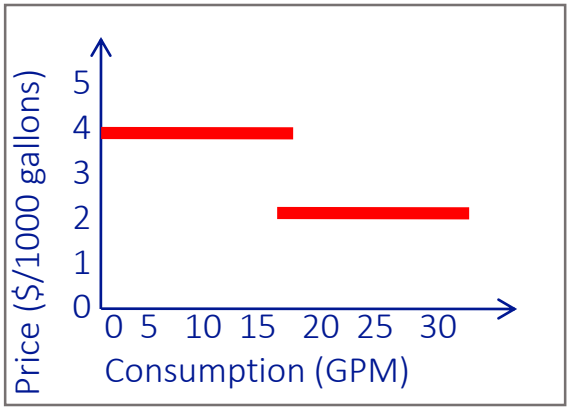
Rate per 1,000 gallons - Tiered

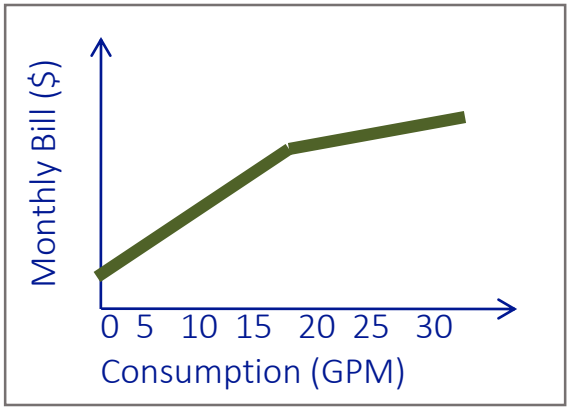
Tier	Water Usage	Rate per 1,000 gallons ($)
1	First 5,000 gallons or less	$13.00
2	Next 5,001 – 15,000	$17.75
3	Next 15,001 – 25,000 (Over 15,000 cattle lessees)	$18.75
4	25,001 or more for all except cattle lessees	$19.75

Volumetric Rate Structure

Decreasing Block Rates

- Provide price break for large users (e.g.: commercial)
- Do not use for residential





Town of Double Springs, AL

Commercial Water Rate Table

Minimum	10,000 gals.	$143.25
Next	10,000 gals.	$ 7.10 per 1,000 gals.
Next	10,000 gals.	$ 6.00 per 1,000 gals.
Next	20,000 gals.	$ 5.50 per 1,000 gals.
Next	99,999,999 gals.	$ 5.00 per 1,000 gals.

(If Applicable) Block Designs

For block rate structures to be effective:

- Decide on the correct number of blocks
- Decide on where the blocks should end/start
- Set significant rate differentials between blocks

(If Applicable) Block Designs

For block rate structures to be effective:

- Keep in mind your base charge and consumption allowance
- Meter reading must be punctual, and meters must be replaced frequently
- Think about large families

Too Many Blocks!

fixed 1000	Per 1000 gal. increase	water 11.66	Per 1000 gal. increase	sewer 13.10	combined 24.76
2000	2.43	14.09	3.67	16.77	30.86
3000	4.62	18.71	7.06	23.83	42.54
4000	5.38	24.09	7.35	31.18	55.27
5000	5.50	29.59	7.68	38.86	68.45
6000	5.75	35.34	7.82	46.68	82.02
7000	5.93	41.27	8.00	54.68	95.95
8000	6.12	47.39	8.20	62.88	110.27
9000	6.31	53.70	8.37	71.25	124.95
10000	6.31	60.01	8.37	79.62	139.63
11000	6.31	66.32	8.37	87.99	154.31
12000	6.31	72.63	8.37	96.36	168.99
13000	6.31	78.94	8.37	104.73	183.67
14000	6.31	85.25	8.37	113.10	198.35
15000	6.31	91.56	8.37	121.47	213.03
15001-99999999	6.51	98.07	8.56	130.03	228.10

Frequency of Rate Changes

- Always review your rates annually (recommended)
- Review your financial health indicators annually, and then review your rates if any of the indicators reflect poor financing
- Raise rates each year automatically based on inflation

Village of Richmond, IL

SECTION 3.27 **ANNUAL INCREASE OF RATES AND FEES**

The following fees: Water and Sewer Service, Building Permit Fees, School Impact Fees, Fire Prevention and Life Safety Donations and Municipal Impact Fees as set forth by Village ordinance are subject to an annual increase to be applied by the Village Treasurer by May 1 of each year using the following prescribed formula:

The above rates and Fees will be increased by the amount of the percentage increase of the Consumer Price Index (hereinafter defined) for the previous calendar year. Consumer Price Index ("CPI") means the U.S. City Averages for all Urban Consumers, All Items, (1982-1984=100) of the United States Bureau of Labor Statistics. The CPI for any calendar year shall be determined by averaging the monthly indices for that year. If the Bureau of Labor Statistics substantially revises the manner in which the CPI is determined, an adjustment shall be made in the revised index which would produce results equivalent, as nearly as possible, to those which would be obtained if the CPI had not been so revised. If the 1982-1984 average shall no longer be used as an index of 100, such change shall constitute a substantial revision. If the CPI becomes unavailable to the public because publication is discontinued or otherwise, the Village shall substitute therefore a comparable index based upon changes in the cost of living or purchasing power of the consumer dollar published by any other governmental agency or, if no such index is available, then a comparable index published by a major bank, other financial

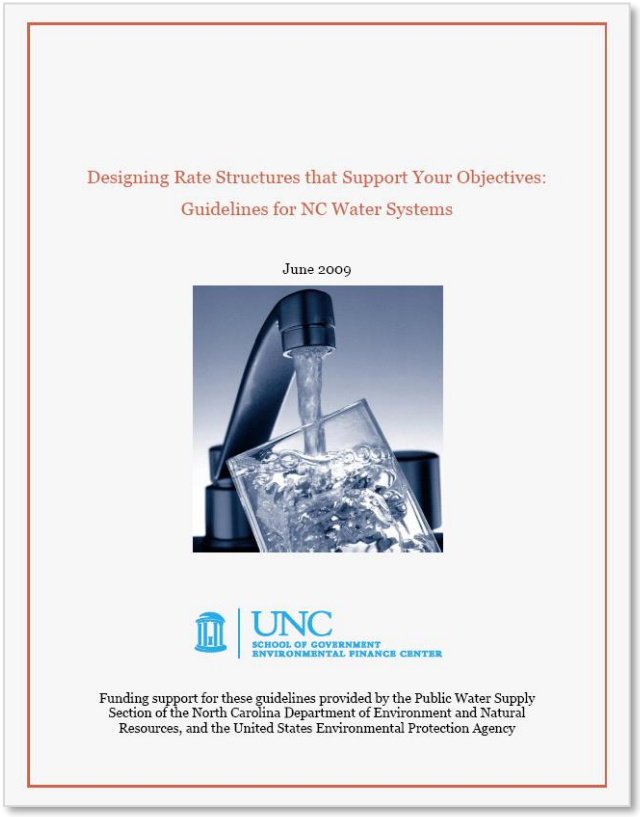
Frequency of Rate Changes

- *Important: Avoid maintaining low rates at the expense of your utility's financial health. It will either lead to a sudden, massive rate increase in the future or to failing systems and endangering public health.*

Designing Rate Structures That Support Your Objectives

Free guide written for system managers

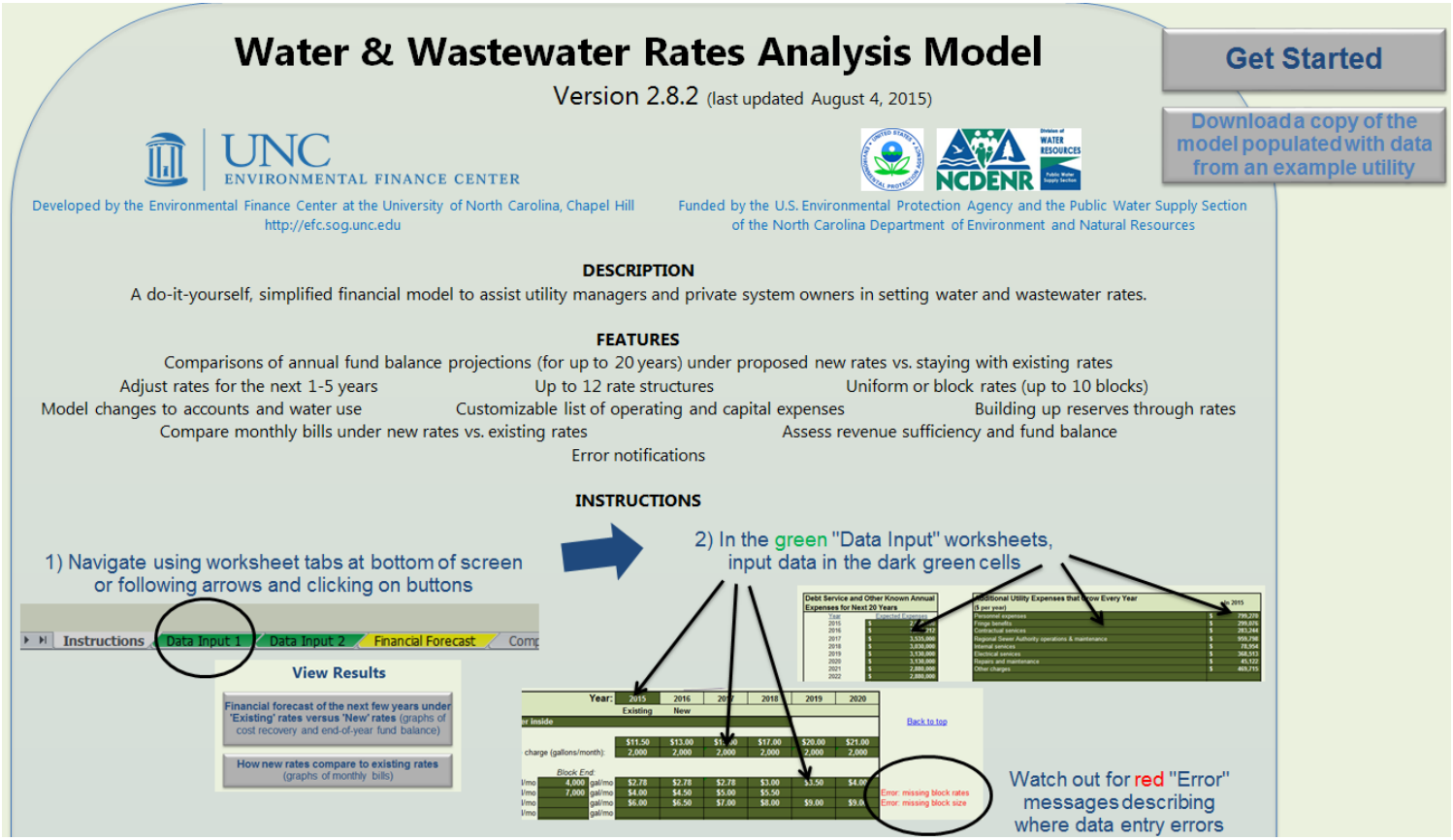
Available at: http://efc.sog.unc.edu/



Water and Wastewater Rates Analysis Model

http://efc.sog.unc.edu or http://efcnetwork.org

Find the most up-to-date version in Resources / Tools



Created by the Environmental Finance Center at the University of North Carolina, Chapel Hill
Funded by the U.S. E.P.A. and the N.C. Department of Environment and Natural Resources

Before we go…

https://efcnetwork.org/resource-library/

Resource Library

View All Tools | View All Publications | View All Posts

For an overview of some of the tools and resources available in our Resource Library, please view our Tools and Resources flyer.

What does your system need help with?

- We treat more water than we sell.
- We have insufficient revenue to cover our costs.
- We have aging infrastructure and we want to get the longest useful life.
- How can we use less energy but maintain our level of service?
- Where can we find outside funding to support our water system?
- How can we work with other water systems to lower costs?

https://efc.sog.unc.edu/project/utility-financial-tools

The EFC at UNC has created several free tools to assist water utilities in addressing the challenges and questions we commonly see in our teaching and advising. These tools cover a broad range of finance and management topics, including rates and revenue, financial benchmarking, affordability, capital finance, communicating with the board, and evaluating loans and grants.

Rates and Revenue

Water and Wastewater Rates Analysis Model

Usethistool to review your rates to ensure projected revenues cover projected expenses. This tool will help you determine whether proposed rates will keep the utility financially self-sufficient for the next few years.

Water Utility Revenue Risk Assessment Tool

Use this tool to assess how much revenues might be affected by changing demand patterns. The tool will help you compare effects on existing rates and on alternative rate structures.

Benchmarking

Financial Sustainability and Rates Dashboards

Our flagship tools for water utilities, these interactive dashboards allow you to benchmark your utility's rates against other utilities with similar

http://efcnetwork.org/small_systems_blog/

Learn more about water finance and management through our Small Systems Blog!

Blog posts feature lessons learned from our training and technical assistance, descriptions of available tools, and small systems “success stories.”

http://efc.web.unc.edu/

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Two Favors & A Reminder

- Please fill out an eval form for us before you leave and leave it on the table
- Please leave the polling device on the table
- Contact us anytime for direct technical assistance on any finance and management topic of our project

Thank you!

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