



# Water and Wastewater Rates -- Challenges for Pacific Utilities

**A Presentation to the  
7<sup>th</sup> Pacific Water Conference and Expo**

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# Presentation Format



- ◆ Facts about Water and WW Rates in the 21<sup>st</sup> Century
- ◆ Rate Comparisons
- ◆ Common Rate Plan Objectives
- ◆ Guidelines for Implementing Rate Adjustments
- ◆ Summary



# Introduction to Economists.com



- ◆ Economic and financial consulting services to private and public sector
- ◆ Serves utility clients throughout USA and Pacific Region
- ◆ Principal offices in Dallas Texas and Portland Oregon
- ◆ 30 + years experience in water, electric and telecommunications industries



# Economists.com Client List



## Pacific Region

American Samoa Power Authority

EPC Samoa

CUC Saipan

Palau Public Utilities Corporation

Guam Power Authority

Asian Development Bank

## United States

Arizona -- 30+ Utilities

Texas -- 50+ Utilities

USA -- 20 + Utilities

United States Environmental Protection Agency

North American Development Bank

United States Department of Justice



# Why Are Water and Wastewater Rates Increasing?



- ◆ Inflation
- ◆ Higher costs of doing business (chemicals, electricity, insurance, etc.)
- ◆ Capital repairs needed to maintain system
- ◆ Regulation, government and environmental mandates

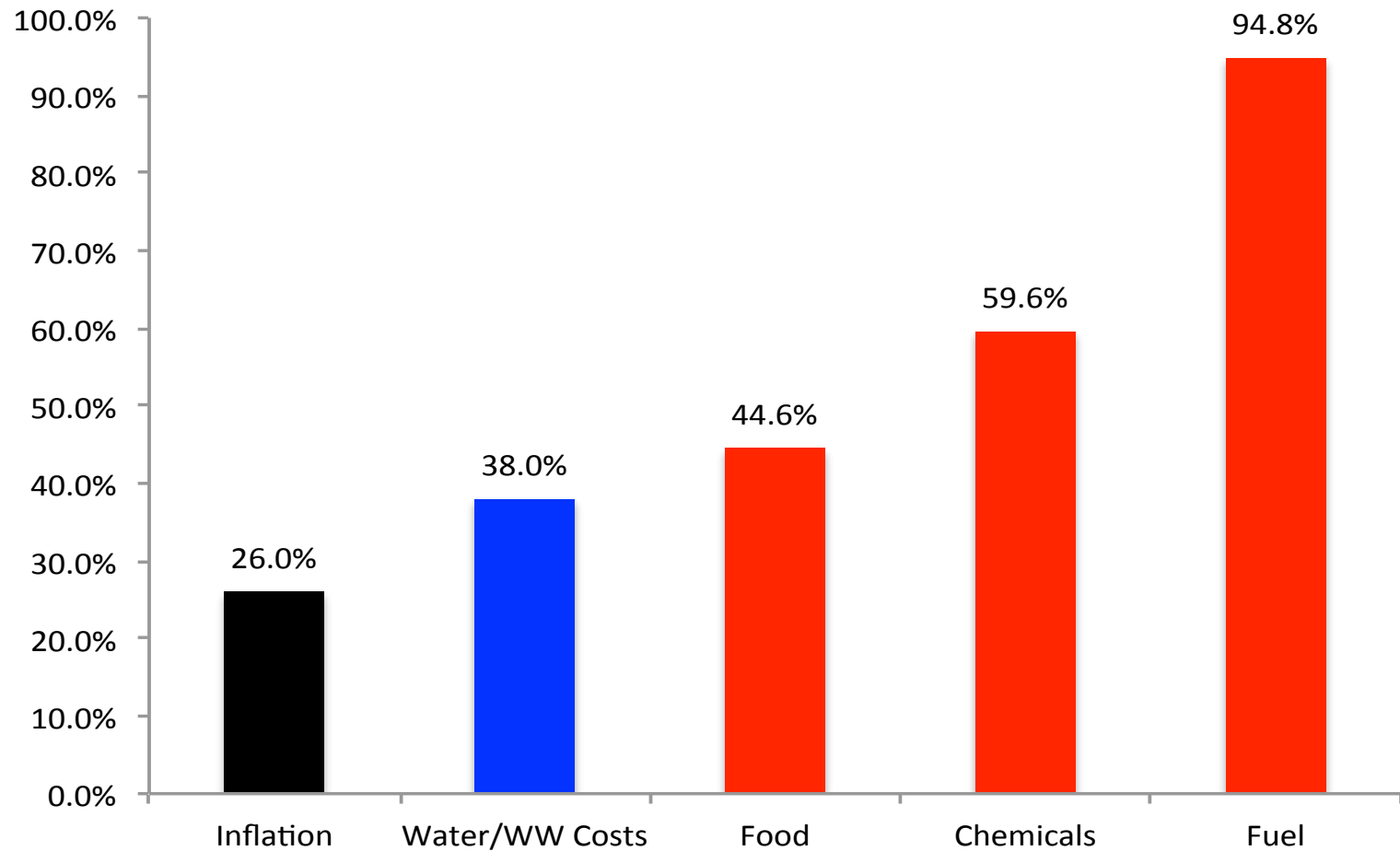


# Facts About Water and Wastewater Rates

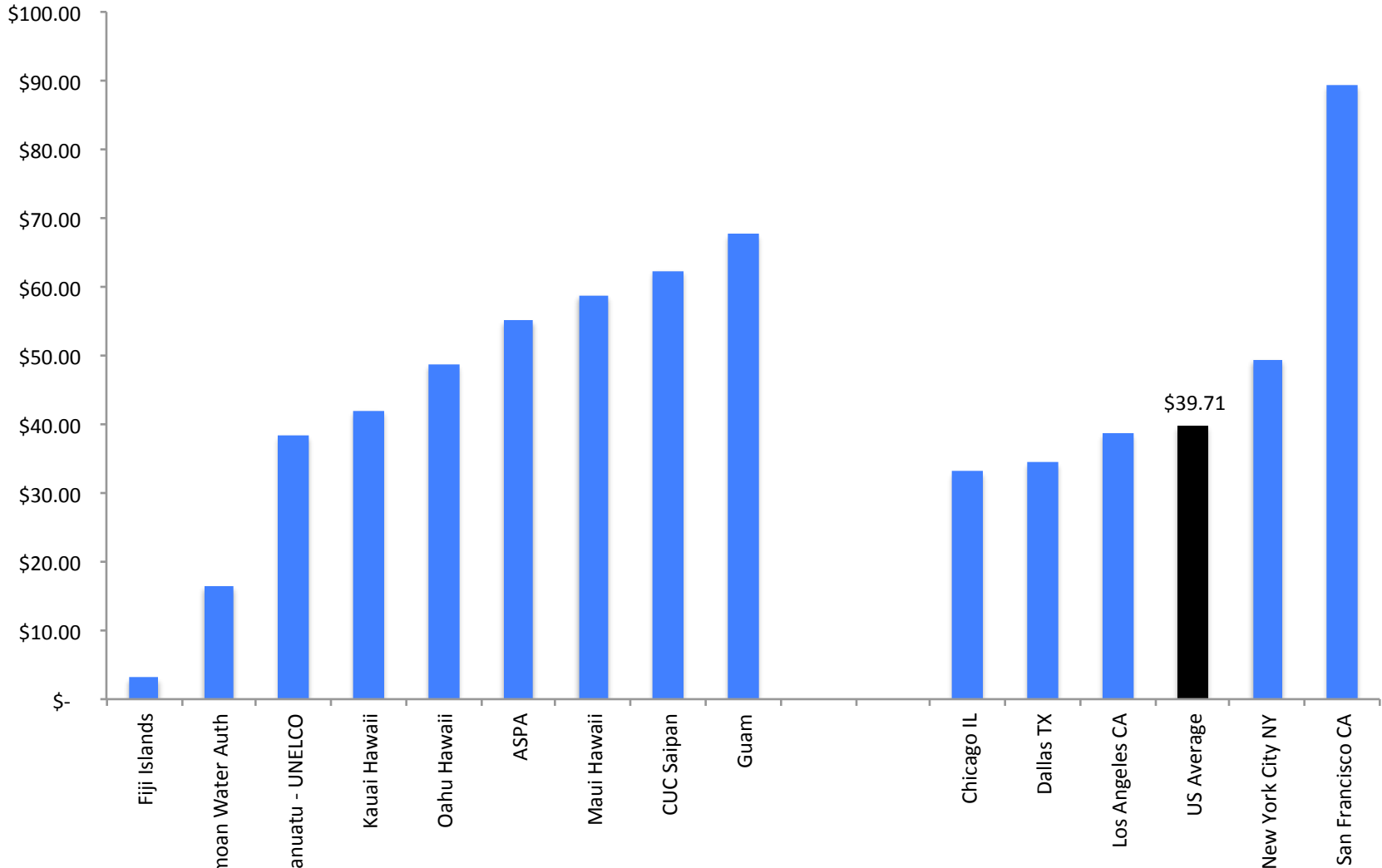


- ◆ Water and Wastewater utility rate increases are a fact of life in the 21<sup>st</sup> Century
  
- ◆ However, implementing rate increases can be very difficult for a utility and its management:
  - ❖ Ratepayers likely to vigorously resist any cost increases
  
  - ❖ Boards and political leaders will fear political implications of rate increases
  
- ◆ Many utilities are facing the dilemma of needing more revenues but being unable to get their leaders and ratepayers to agree to higher rates

# Comparison of USA Cost Increases 2004 -- 2014

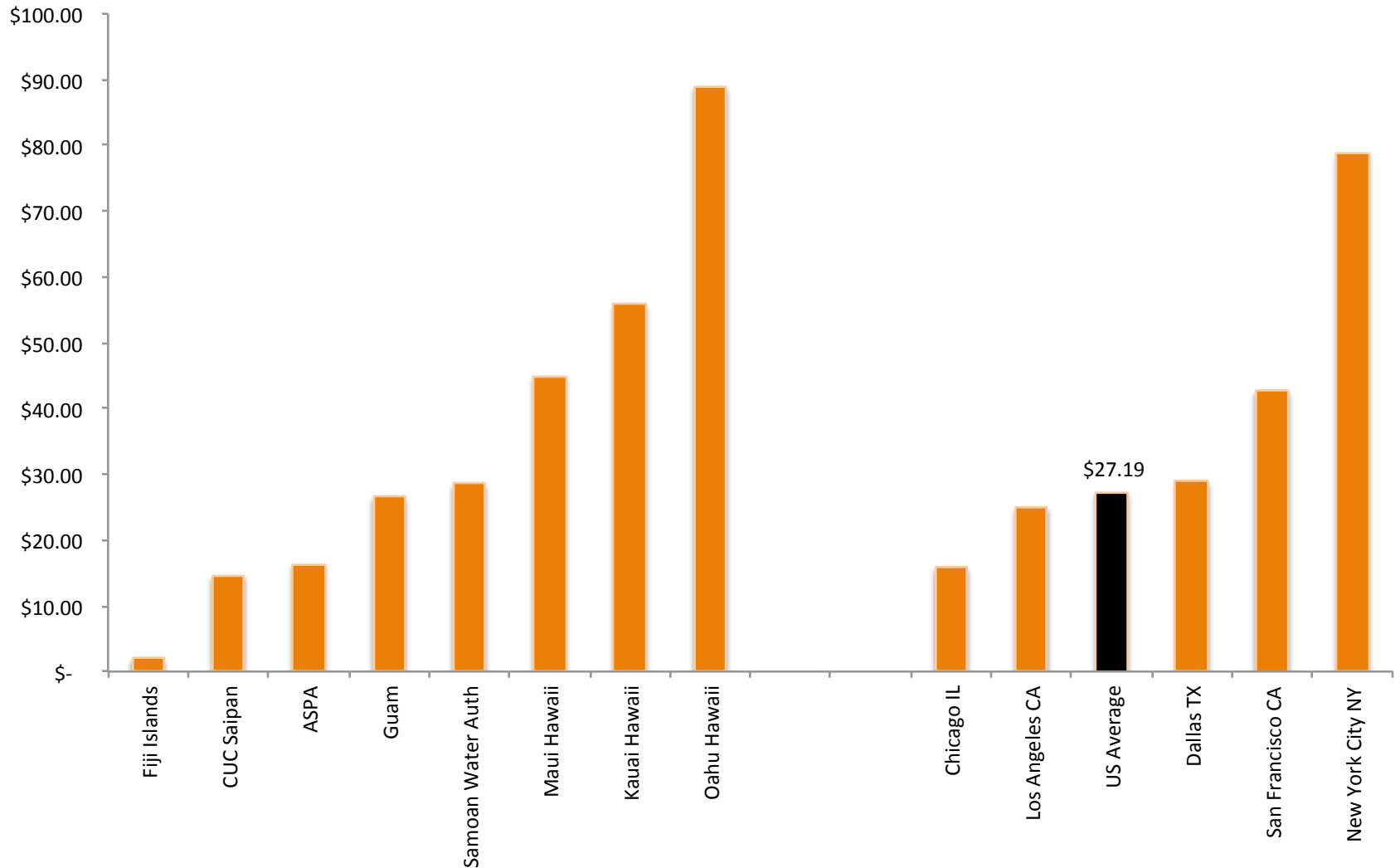


# Average Monthly Residential Charge 10,000 Gallons Water

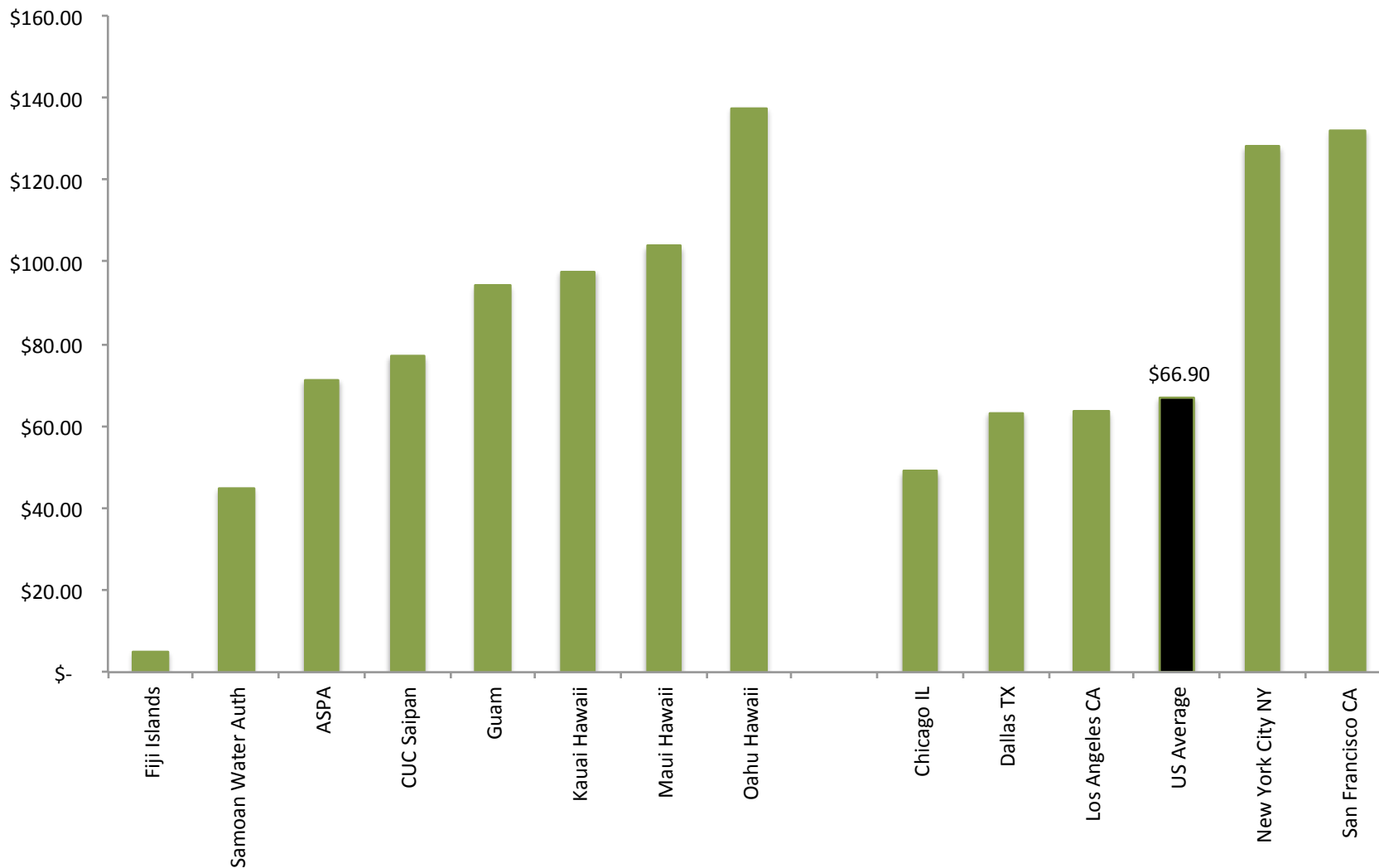




# Average Monthly Residential Charge 5,000 Gallons Wastewater



# Average Monthly Residential Charge 10,000 Water, 5,000 Wastewater



# How is a Utility's Revenue Requirement from Rates Calculated?



## Sample Utility Revenue Requirement Calculation

\$ 5,000,000	Operating Expenses
250,000	Capital Outlays
<u>2,000,000</u>	Debt Principal and Interest
<b>7,250,000</b>	<b>Total Cost of Service</b>
<u>(500,000)</u>	Less Non-Rate Revenues
<b>6,750,000</b>	<b>Net Revenue Requirement to be Raised from Rates</b>

# Common Rate Plan Objectives



- ❖ Recover sufficient revenue to fund operations
- ❖ Fund Capital Improvements needed to maintain quality and reliability of system
- ❖ Maintain required financial ratios
- ❖ To the best extent possible, minimize the impact of any rate adjustments on ratepayers



# Challenges and Objectives for Rate Plan Implementation



- ◆ Remember, ratemaking is an “art”, not a “science”
  - ❖ There are hundreds of rate plans that will recover sufficient revenues to fund operations
  - ❖ Utility’s challenge: finding a rate plan that the largest number of customers will find to be just, reasonable and fair
- ◆ Rate increases are as much a social, community and political decision as they are a financial decision
- ◆ The objective is to convince ratepayers and decision-makers to do something they do not want to do because it is in the best interest of the utility and the community

# Addressing Challenges Faced by Pacific Utilities through Rate Structures



## Challenge

## Rate Structure Response

Limited fresh water/groundwater supply and growing demand

Implement Conservation Rates to minimize demand

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Rising Cost of Electricity/Power

Separate power costs into a distinct surcharge on bill

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Environmental Concerns/i.e. Groundwater Contamination

Provide incentive to connect to sewer system through attractive rate

Investigate availability of grant funding

# Guidelines for Implementing Rate Adjustments



## Tip #1 -- Try to make rate adjustment coincide with a major facilities expansion/repair

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- ◆ New plant, lines etc. will show ratepayers “where the money is going”
- ◆ Will also allow utility to assert that it is “improving the quality of service”
- ◆ Utility can also assert that it is being compelled to increase rates by lenders/bondholders

# Guidelines for Implementing Rate Adjustments



## Tip #2 – Prepare a formal study assessing the need to adjust rates

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- ◆ Will demonstrate that the Utility has developed a well thought out approach to its rates
- ◆ Will show that Utility has conducted “due diligence”
- ◆ Should an outside consultant be used?
  - ❖ Advantages: “disinterested expert”, lends legitimacy and credibility to project, staff may not have time
  - ❖ Disadvantages: some ratepayers don’ t like paying for consultants



# Guidelines for Implementing Rate Adjustments



## Tip #3 – Make Full Use of Accepted Rate Design Options

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- ◆ That phrase again – ratemaking is an art, not a science!
- ◆ Consider special Lifeline rates for lowest income ratepayers
- ◆ Try not to disproportionately impact any customer class
  - ❖ Will lead to perception of unfairness; customers WILL complain!
- ◆ Consider “capacity fees” and other non-rate revenue supplements

# Guidelines for Implementing Rate Adjustments



## Tip #4 – Consider implementing conservation-based Inverted Block Rates

- ◆ Inverted Block – ratepayers who use higher volumes of water pay higher rates
- ◆ Minimizes rate adjustments on low volume, low income users
- ◆ Promotes conservation of a precious, diminishing natural resource
- ◆ Becoming increasingly popular all over the world

INVERTED BLOCK RATE EXAMPLE		
<b>Base Charge</b>	\$	10.00
<b>Per 1,000 Gallons</b>		
0 -- 10,000	\$	1.00
10,001 -- 20,000	\$	1.50
20,001 -- Above	\$	2.00

# Guidelines for Implementing Rate Adjustments



## Tip #5 – Implement Small Annual Adjustments rather than a single major adjustment

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- ◆ Small annual increases are generally more acceptable
- ◆ Allows ratepayers time to adjust household budgets to incorporate new rate structure
- ◆ Requires a long-term (5-10) financial plan and fiscal discipline
- ◆ Certain financial strategies can make this doable (i.e. interest-only bonds)

# Guidelines for Implementing Rate Adjustments



## Tip #6 – Reach Out to the Public

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- ◆ You have compelling reasons for requiring rate adjustments – make sure the public knows them
- ◆ Public involvement reinforces the fact that you care about the impact of rate adjustments on your ratepayers and you are listening to them
- ◆ But try not to let public hearings degenerate into “gripe sessions” about the utility

# Guidelines for Implementing Rate Adjustments



## Tip #7 – Work Closely with Regulatory Agencies

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- ◆ Utilities subject to regulatory supervision must accept that regulators have the final say in any rate adjustments
- ◆ Utilities can be at a disadvantage in dealing with regulators because utility must prove that it “needs” a rate adjustment
- ◆ Working cooperatively with regulator is much more beneficial than working in an adversarial relationship

# Summary



- ◆ It is inevitable that utilities will have higher costs in the 21<sup>st</sup> century
- ◆ Prudent utilities must plan for periodic rate adjustments to cover these increased costs
- ◆ How rate adjustments are structured and presented is the key to whether they will be accepted by the public
- ◆ Following the guidelines outlined in this presentation may lead to more acceptance and less controversy in the implementation of rate adjustments

