Constructing A Successful Rate Structure: 
*The Art & Science*

Rate Restructure Communication Workshop

Denver Water  Water Research Foundation

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The Rate Setting Process

**STEP 1:** IDENTIFY FINANCIAL & PRICING OBJECTIVES

**STEP 2:** IDENTIFY REVENUE REQUIREMENTS & DEMAND PROJECTIONS

**STEP 3:** ALLOCATE COSTS

**STEP 4:** DESIGN RATE STRUCTURE

**STEP 5:** ASSESS EFFECTIVENESS IN ADDRESSING PRICING OBJECTIVES
Weigh Pricing Objectives

Affordability

Conservation/Demand Management

Cost of Service Based Allocations

Ease of Implementation

Economic Development

Equitable Contributions from New Customers

Minimization of Customer Impacts

Rate Stability

Revenue Stability

Simple to Understand and Update
“Water may be the most vital resource in every aspect of human endeavor, but the economics of water is a mash-up of tradition, wishful thinking, and poor planning.”

Charles Fishman, Author *The Big Thirst*, 2010
The Perfect Storm

2008 - 2012
Economic downturn
Drought / Restrictions
Lower water sales
Revenue loss

The “New Normal”
- Costs will go up
- Droughts will happen
- Water efficiency is here to stay
- Customers want to see rates that reflect their situation
- Customer Service will become more and more important
- Utilities need more tools
  - Defensible
  - Logical
  - Flexible
Water-Wastewater vs. CPI
Source: AWWA – RFC 2012 Survey

Survey Year (all assumed to be Jan. 1, except 2008-2012, which is July 1)
Annualized Rate Increase
1996 to 2012
Source: AWWA – RFC 2012 Survey

- Water: 4.90%
- Wastewater: 5.19%

CPI: 2.50%
## Rate Structure Expectations?

<table>
<thead>
<tr>
<th>Utility:</th>
<th>Customer:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Equitable</td>
<td>• Equitable</td>
</tr>
<tr>
<td>• Effective</td>
<td>• Reasonable</td>
</tr>
<tr>
<td>• Generates required revenue</td>
<td>• Clear and understandable</td>
</tr>
<tr>
<td>• Encourages efficient use</td>
<td>• Consistent</td>
</tr>
<tr>
<td>• Clear and understandable</td>
<td>• Information-oriented</td>
</tr>
<tr>
<td>• Adaptable when necessary</td>
<td>• “All about me”</td>
</tr>
</tbody>
</table>


Your Rate Structure?

“If customers save more than 2% per year due to conservation, we have to raise rates.”

“We saved water when you asked, now you raise our rates because you did not sell enough water. We need to vote you out.”

“Agencies create rate structures that are a bad business practice.”

“... we're selling a lot less water than we originally anticipated, that's what we call the **new normal**. We have to embrace, and change some of our foundational assumptions.”

“I have a large family and a large lot. Your rates penalize our family even if we are conservative water users”

“We have a rate structure designed to fail.”
Constructing Successful Rates

- Ask the right questions
- Get good data/info

Staff Involvement

Engage Officials

Engage Your Public
What is a Successful Rate Structure?

- Balances the needs of the utility and those of the customer
  - Allocates costs accurately and proportionally
  - Recovers costs in a stable manner
  - Meets the water needs of the customer
- Is “flexible” to adapt to changes
  - Costs
  - Economy
  - Weather
  - Legislation
- Can be an equitable “drought response” tool for the utility
- Is perceived as “fair” by customers
- Is “defensible” for officials
- Sustains adequate revenue and maintains water use efficiency
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- Conservation/Demand Management
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- Ease of Implementation
- Economic Development

- Equitable Contributions from New Customers
- Minimization of Customer Impacts
- Rate Stability
- Revenue Stability
- Simple to Understand and Update
# Art + Science = Results

<table>
<thead>
<tr>
<th>Art:</th>
<th>Science:</th>
<th>Results:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Why Change…?</td>
<td>- Demand Analysis</td>
<td>- Stable revenue</td>
</tr>
<tr>
<td>- Board Education</td>
<td>- Customer Data</td>
<td>- Defensible rates</td>
</tr>
<tr>
<td>- Staff Education</td>
<td>- Customer Allocations</td>
<td>- Educated customers</td>
</tr>
<tr>
<td>- Public Outreach</td>
<td>- Financial Modeling</td>
<td>- Targeting tool</td>
</tr>
<tr>
<td>- Customer Service</td>
<td>- Billing System Upgrade</td>
<td>- Increased utility knowledge</td>
</tr>
<tr>
<td>Plan</td>
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<td>- Future flexibility</td>
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<tr>
<td>- Conservation Programs</td>
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<td>- Long-term efficiency</td>
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