Financing Sustainable Water

FINANCING SUSTAINABLE WATER
Rates. Revenue. Resources.

Alliance for Water Efficiency

Agenda

8:45 am – *Check-In and Breakfast*

9:00 am – Welcome and Opening Remarks

9:15 am – Strategies for Aligning Rates, Revenue and Resources

10:15 am – *Break*

10:30 am – Effective Rate Modeling in an Uncertain World

11:15 am – Water Supplier and Commissioner Perspectives: How to Get to Yes on Rates

12:00 pm – *Lunch and Networking*

1:00 pm – Setting Water Rates in MA: Important Lessons Learned from Suppliers

1:30 pm – *Break*

1:40 pm – Rate Model Case Study

2:30 pm – Adjourn

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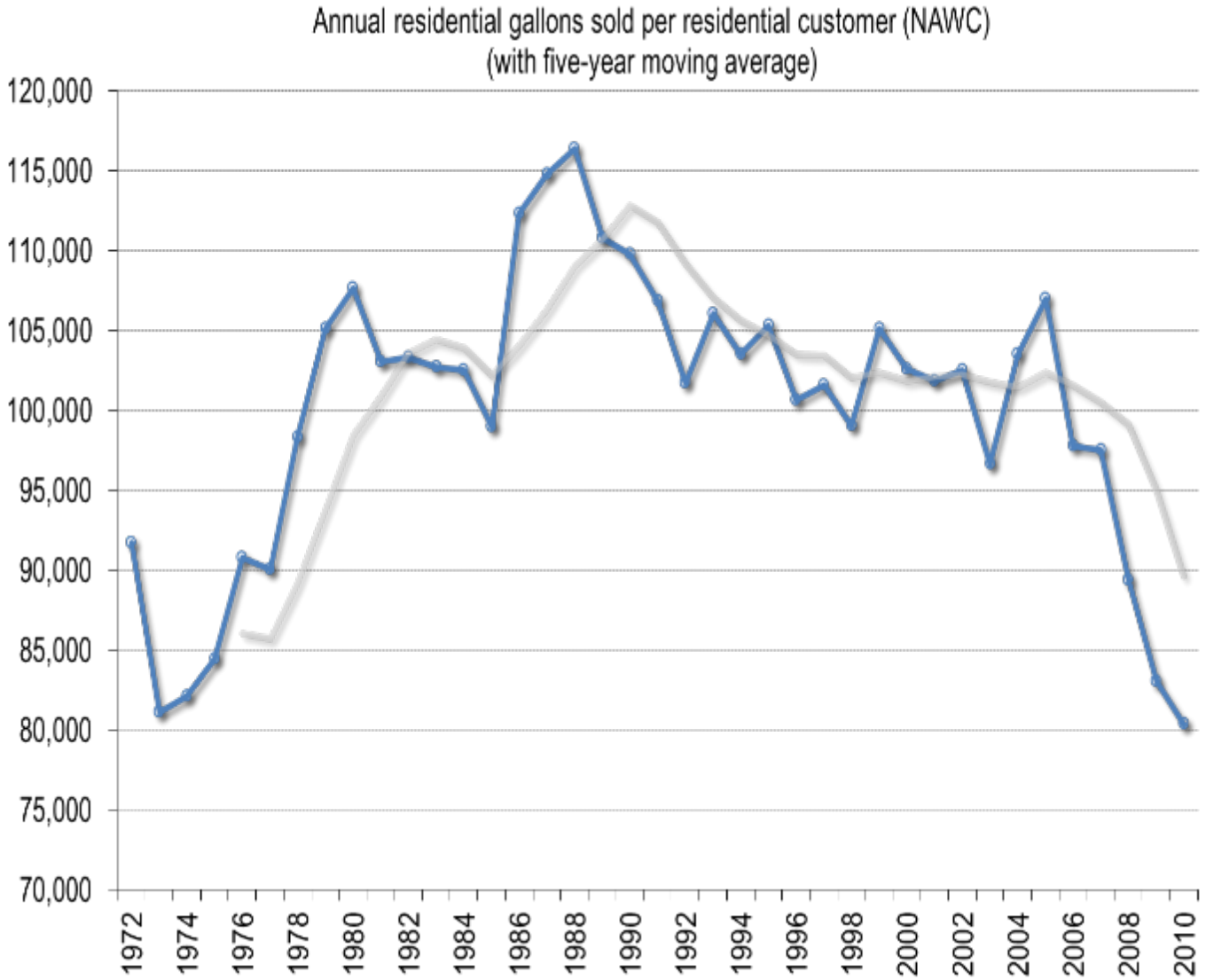
Utility Financial Management: Becoming Harder Than Ever?

Residential Water Sales



Isn't this a Success Story?

- *Yes, but with side effects*
- Lowered demand means reduced sales revenue
- Reduced sales revenue can mean not fully collecting fixed costs
  - Short-run variable costs (water, pumping energy, chemicals)
  - Long-run capacity costs (supply, transmission, storage, treatment)
- Revenue stability therefore becomes an issue – *and conservation is often blamed*
- Left untreated, long-term unstable revenue collection can affect bond ratings

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U.S. | THE TEXAS TRIBUNE

Texans Answer Call to Save Water, Only to Face Higher Rates

By NEENA SATIJA FEB. 8, 2014

"The losses have prompted credit ratings agencies to look closer at the finances of public utilities in Texas. One agency, Fitch, downgraded some of Fort Worth's water and sewer debt last year, and last week the firm downgraded the debt of the city's wholesale water supplier. Fort Worth lost $11 million last year because of water conservation."

What Really Affects Revenue Stability?

- Reduced demand from:
  - efficient fixture replacement under the plumbing and appliance codes
  - active conservation programs
  - the recession: industrial shift layoffs, home foreclosures
- Reduced peak demand in wet years
- Increased infrastructure costs
- Rise in other fixed costs
- Continuing Inflation

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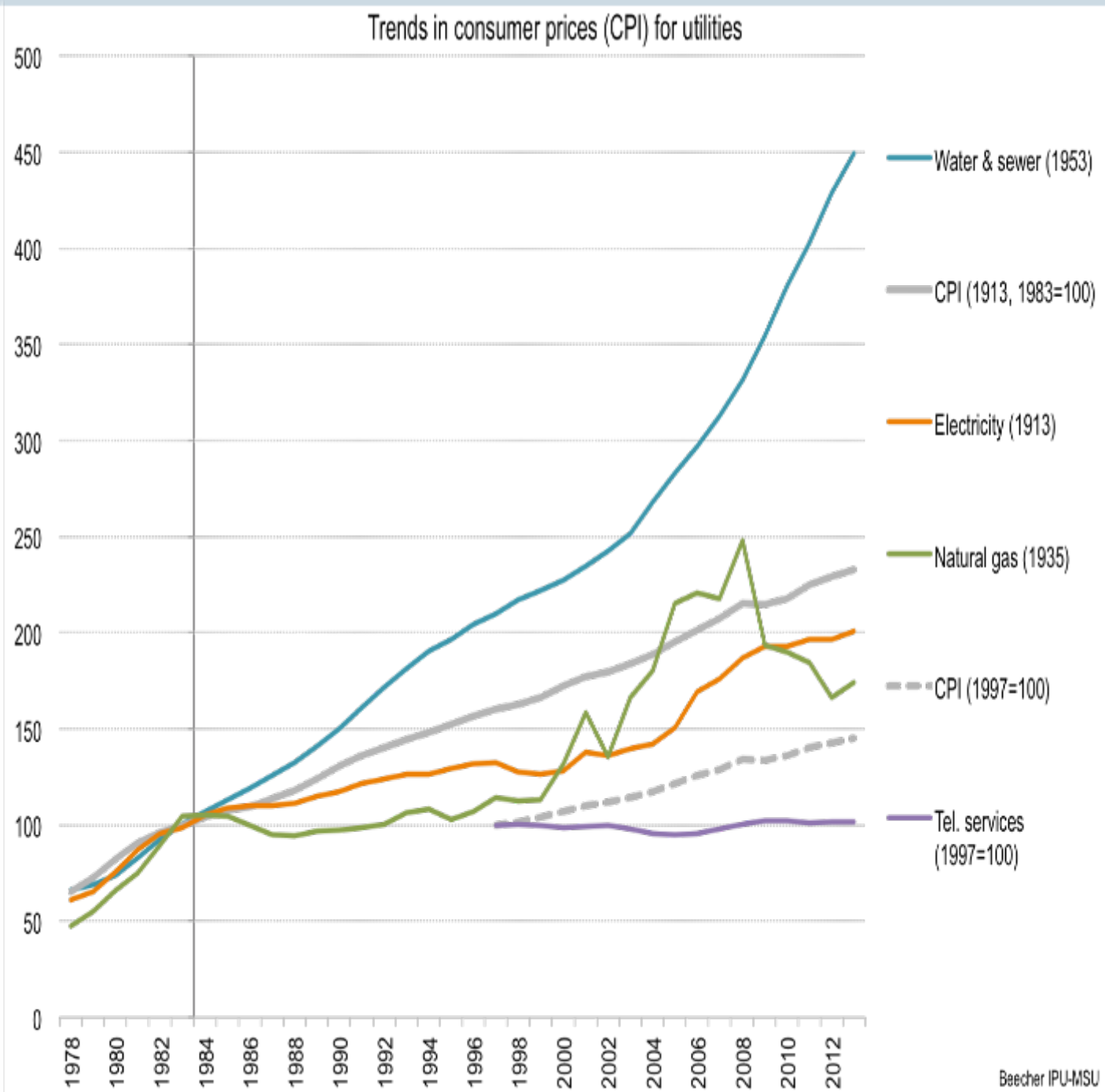
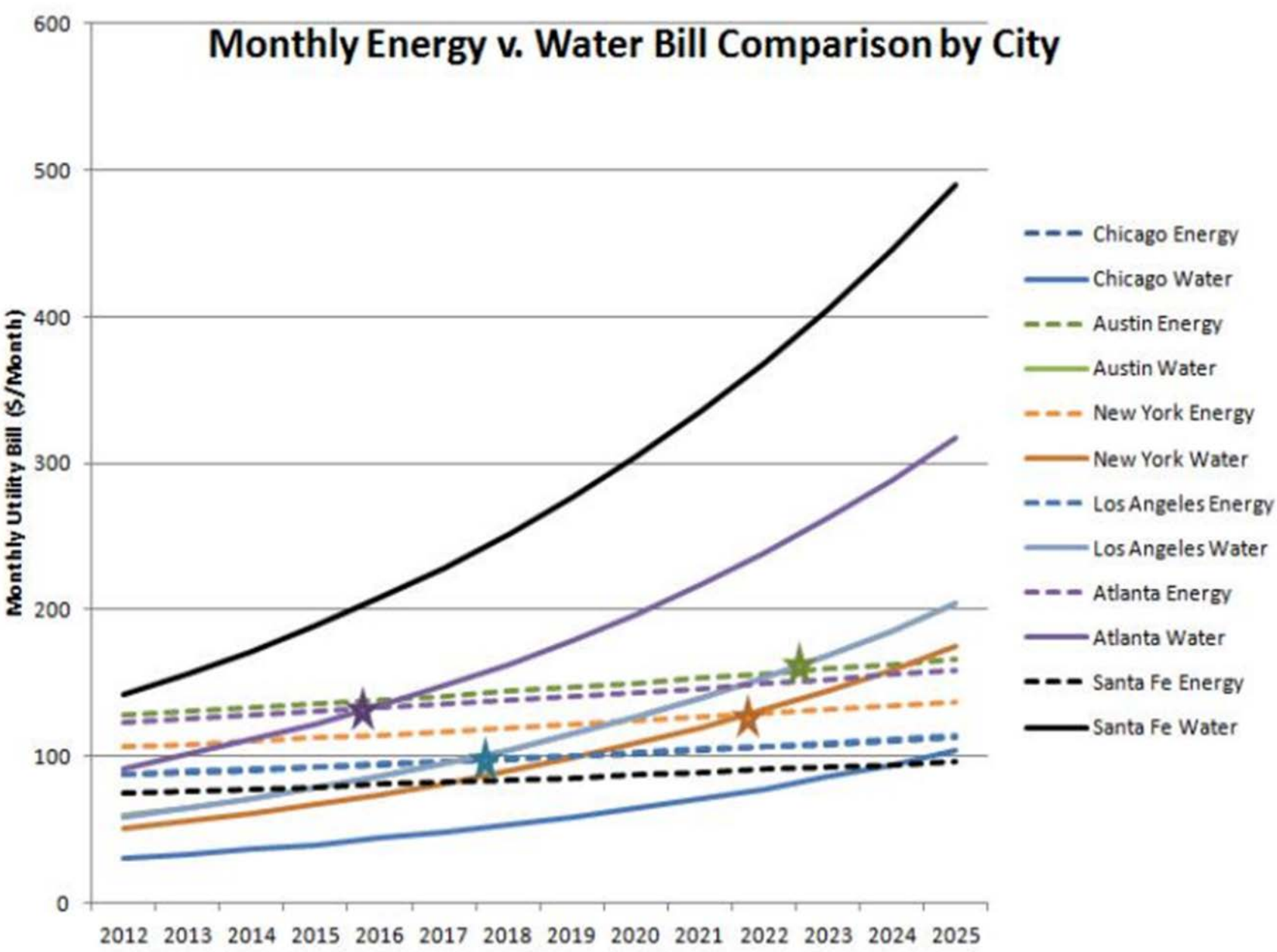

Trends in consumer prices (CPI) for utilities
500
450
400
350
300
250
200
150
100
50
0
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
Water & sewer (1953)
CPI (1913, 1983=100)
Electricity (1913)
Natural gas (1935)
CPI (1997=100)
Tel. services (1997=100)
Beecher IPU-MSU


Monthly Energy v. Water Bill Comparison by City
Monthly Utility Bill ($/Month)
600
500
400
300
200
100
0
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
Chicago Energy
Chicago Water
Austin Energy
Austin Water
New York Energy
New York Water
Los Angeles Energy
Los Angeles Water
Atlanta Energy
Atlanta Water
Santa Fe Energy
Santa Fe Water

Cost-Effective Efficiency and the Real Impact on Rates

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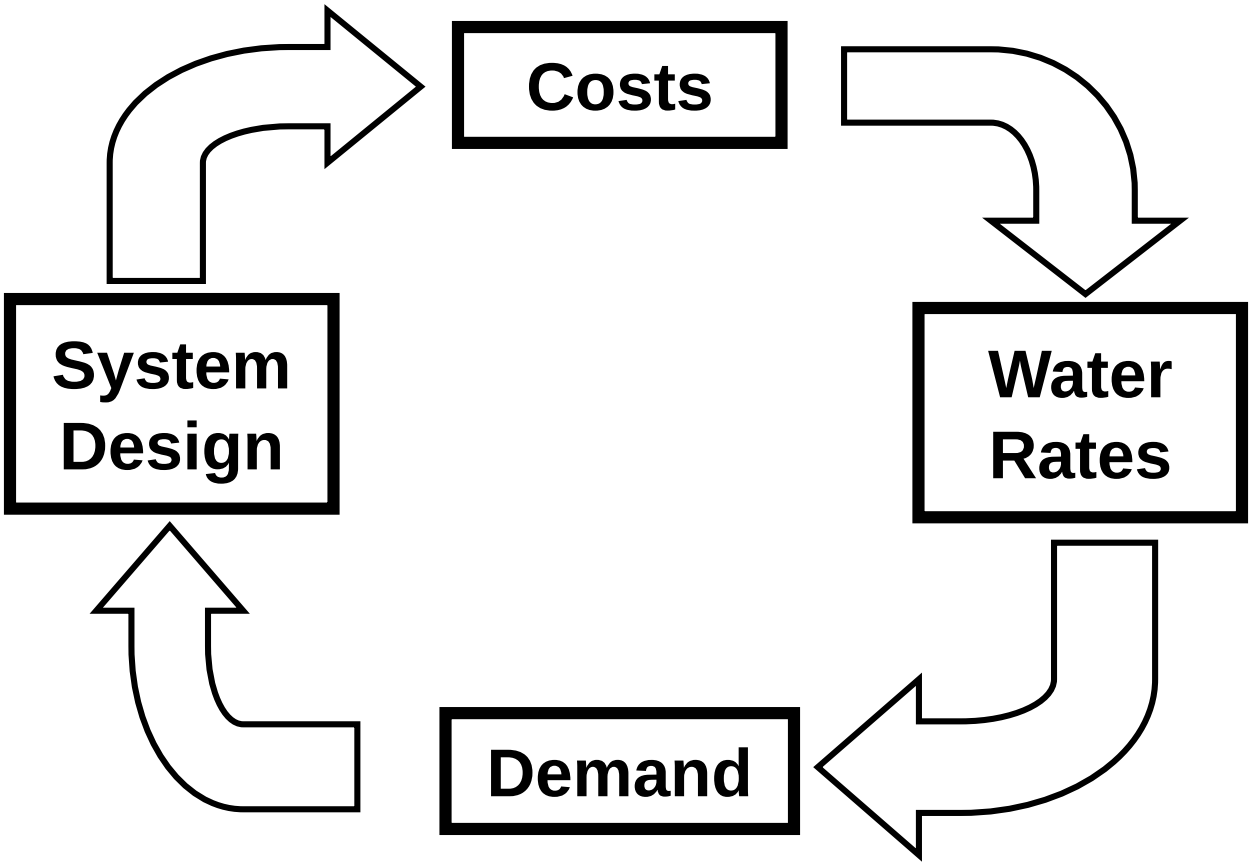
Water Flow and Flow of Economic Logic



Conservation is Part of the Solution

- It is a long-term cost reducer to the utility
- Revenue loss is often due to other drivers
- Every gallon saved is water that does not have to be pumped, treated and delivered
- Conservation is an investment and short-term effects must be planned for
- Reduced utility costs generally mean reduced customer rates in the long-term due to avoided infrastructure capacity increases

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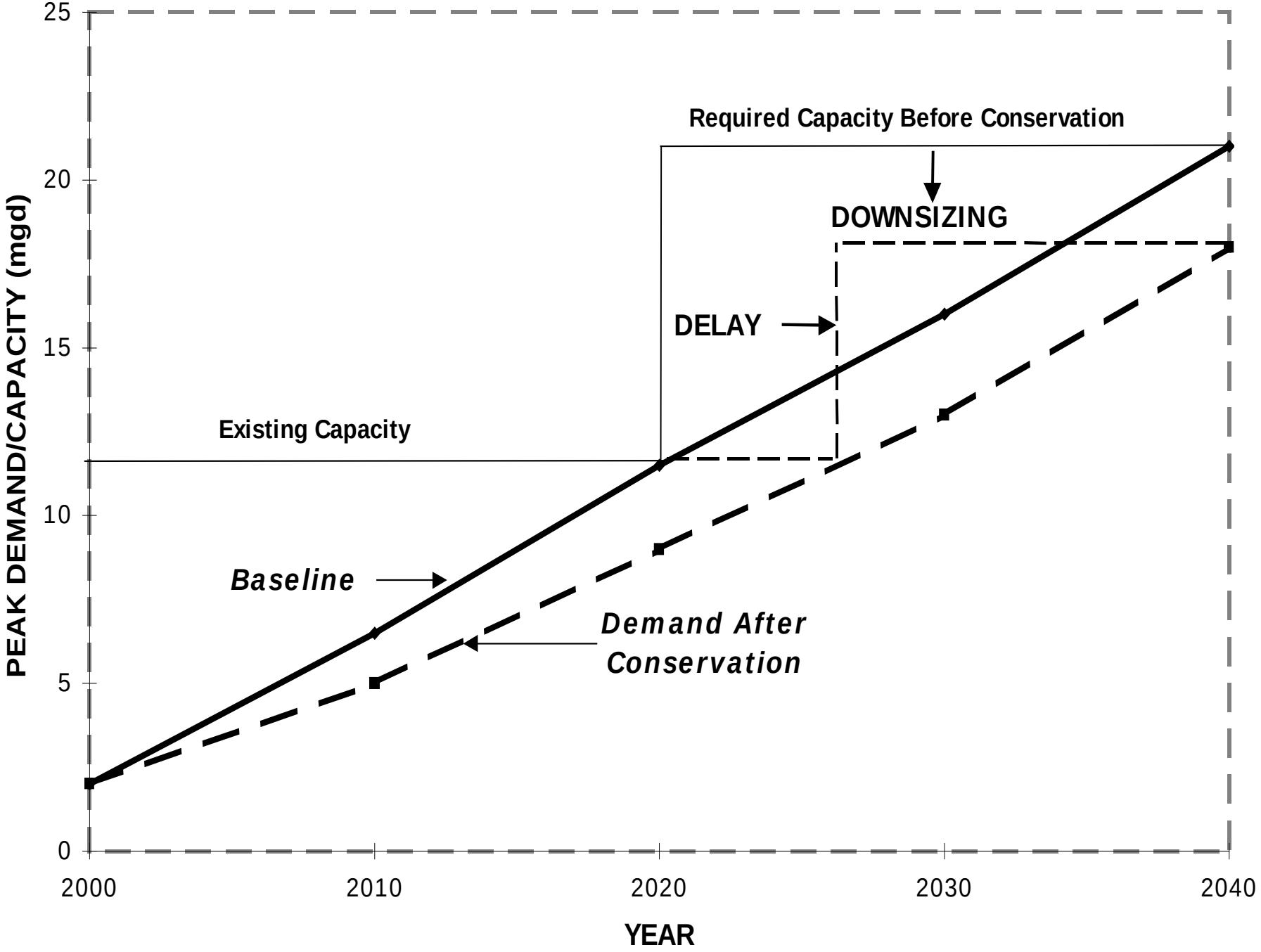
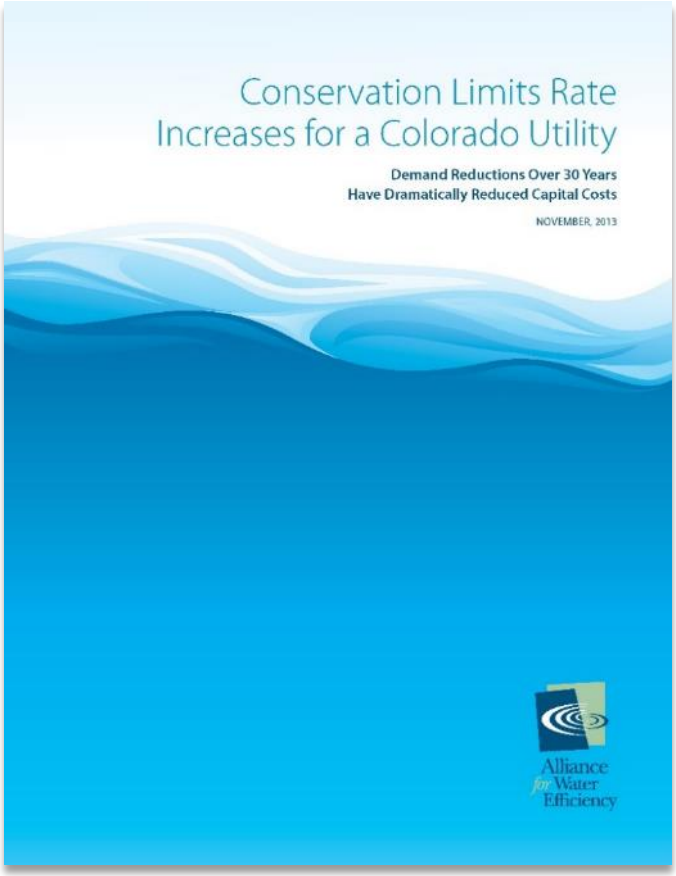

25
20
15
10
5
0
PEAK DEMAND/CAPACITY (mgd)
Required Capacity Before Conservation
DOWNSIZING
DELAY
Existing Capacity
Baseline
Demand After Conservation
2000
2010
2020
2030
2040
YEAR

Westminster's Story

- Citizens complained about being asked to conserve when rates would just go up anyway
- Westminster reviewed marginal costs for future infrastructure if conservation had not been done
- Since 1980 conservation has saved residents and businesses 80% in tap fees and 91% in rates compared to what they would have been without conservation



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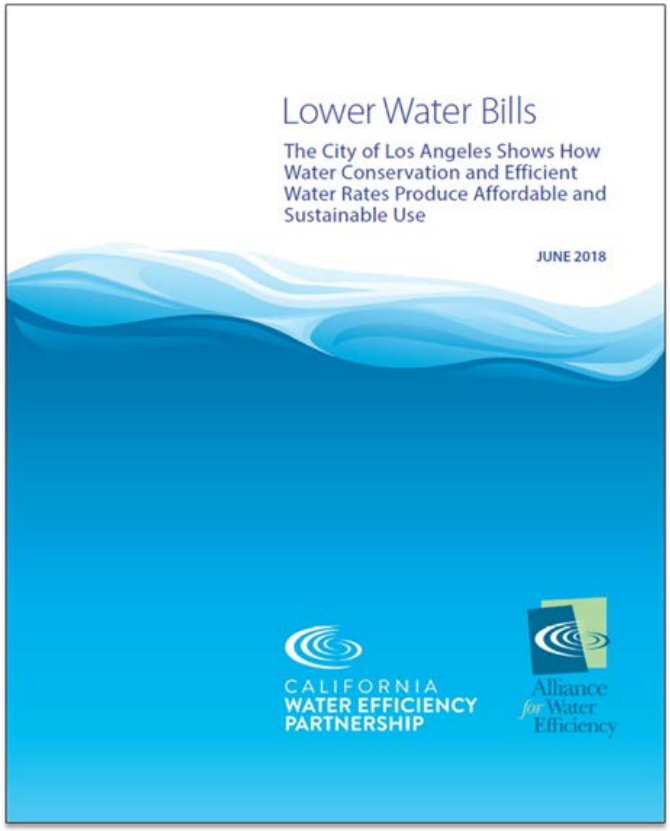
LA's Story

- Similar story with unpopular rate increases
- Study of costs avoided with water conservation programs
- Analysis completed in August, 2018
- LA had $11 billion in avoided infrastructure costs, which reduced customer bills by 26.7%
- Two other studies done in Arizona with similar results



What Will Your Story Be?

- Every story is different, with different drivers!
- Consider the key questions to determine the case for efficiency
- Where do costs come from and what are your future cost risks?
  - Wholesale water costs may be increasing
  - Costs of capital improvements
  - Short run variable costs (treatment, energy, etc.)
- What's your return on the investment in efficiency?
- How do you quantify it?
- AWE Tracking Tool provides forward-looking analysis

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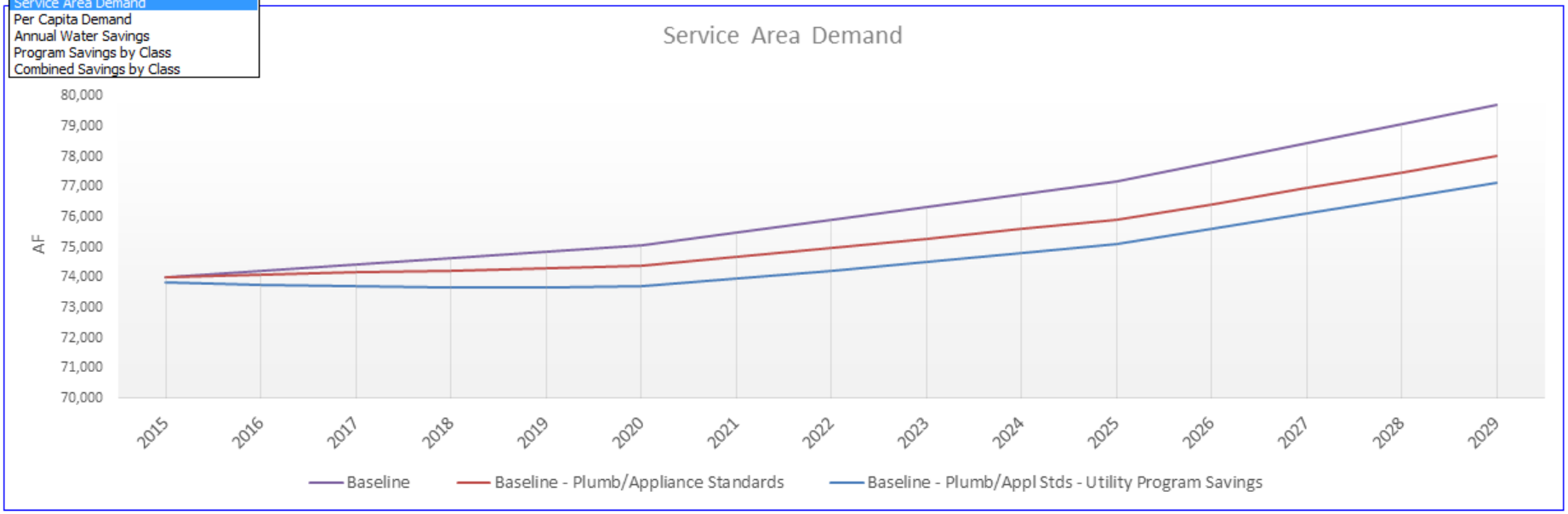
AWE CONSERVATION TRACKING TOOL: WATER SAVINGS SUMMARY WORKSHEET

Select Chart to View

Service Area Demand

- Service Area Demand
- Per Capita Demand
- Annual Water Savings
- Program Savings by Class
- Combined Savings by Class

No. of Years to Display: 15



Service Area Demand	**Units**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**
Baseline	AF	74,018	74,230	74,441	74,653	74,864	75,076	75,499	75,922	76,344	76,767	77,190	77,825	78,459	79,094
Baseline - Plumb/Appliance Standards	AF	74,018	74,086	74,161	74,234	74,313	74,397	74,691	74,989	75,292	75,600	75,914	76,434	76,958	77,487
Baseline - Plumb/Appl Stds - Utility Program Savings	AF	73,834	73,770	73,724	73,686	73,662	73,700	73,964	74,235	74,515	74,801	75,099	75,605	76,117	76,632

Per Capita Demand	**Units**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**
Population	People	350,000	351,000	352,000	353,000	354,000	355,000	357,000	359,000	361,000	363,000	365,000	368,000	371,000	374,000
Baseline	GPCD	189	189	189	189	189	189	189	189	189	189	189	189	189	189
Baseline - Plumb/Appliance Standards	GPCD	189	188	188	188	187	187	187	186	186	186	186	185	185	185
Baseline - Plumb/Appl Stds - Utility Program Savings	GPCD	188	188	187	186	186	185	185	185	184	184	184	183	183	183

Water Savings	**Units**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**
Plumb/Appliance Standards	AF	0	143	280	419	552	678	808	933	1,052	1,167	1,277	1,391	1,501	1,607
Utility Programs	AF	184	316	437	548	651	697	726	754	777	800	814	828	842	855
Total Water Savings	**AF**	**184**	**460**	**717**	**967**	**1,202**	**1,375**	**1,534**	**1,687**	**1,830**	**1,967**	**2,091**	**2,219**	**2,343**	**2,462**
% of Baseline Demands	**%**	**0.2%**	**0.6%**	**1.0%**	**1.3%**	**1.6%**	**1.8%**	**2.0%**	**2.2%**	**2.4%**	**2.6%**	**2.7%**	**2.9%**	**3.0%**	**3.1%**

Water Savings Breakdown

Nat'l Plumbing/Appliance Standards	**Units**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**
Single Family	AF	0	103	202	303	399	491	585	675	762	845	924	1,006	1,085	1,160
Multi Family	AF	0	24	48	71	93	115	137	158	178	198	216	236	254	272
CII	AF	0	16	30	45	59	72	86	99	112	125	137	150	162	174
Irrigation	AF	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AWE CONSERVATION TRACKING TOOL: UTILITY REVENUES & RATES WORKSHEET

Review revenue requirement and rate impacts: This worksheet calculates the impact of planned conservation on annual revenue requirement, average rates, and average bills. It assumes the volumetric revenues generated by the baseline demand and rates forecasts correspond to the utility's volumetric revenue requirement. It then adjusts forecasted annual water sales and revenue requirement using the water savings, conservation program cost, and utility avoided cost estimates calculated earlier. The adjusted revenue requirement equals the baseline revenue requirement plus annual conservation program cost minus annual avoided water supply cost. The adjusted average volumetric rate equals adjusted revenue requirement divided by adjusted annual water sales. The adjusted average monthly volumetric bill equals adjusted revenue requirement divided by number of accounts divided by 12. Calculations are done for two alternative financing strategies for planned conservation. The first strategy treats planned conservation as an operating expense. The model assumes planned conservation is paid for in the year it occurs (Pay-Go financed). The second strategy treats planned conservation as a capital expense. The model assumes planned conservation is debt financed. You can set the debt financing term using the drop-down list.

Select Chart to View

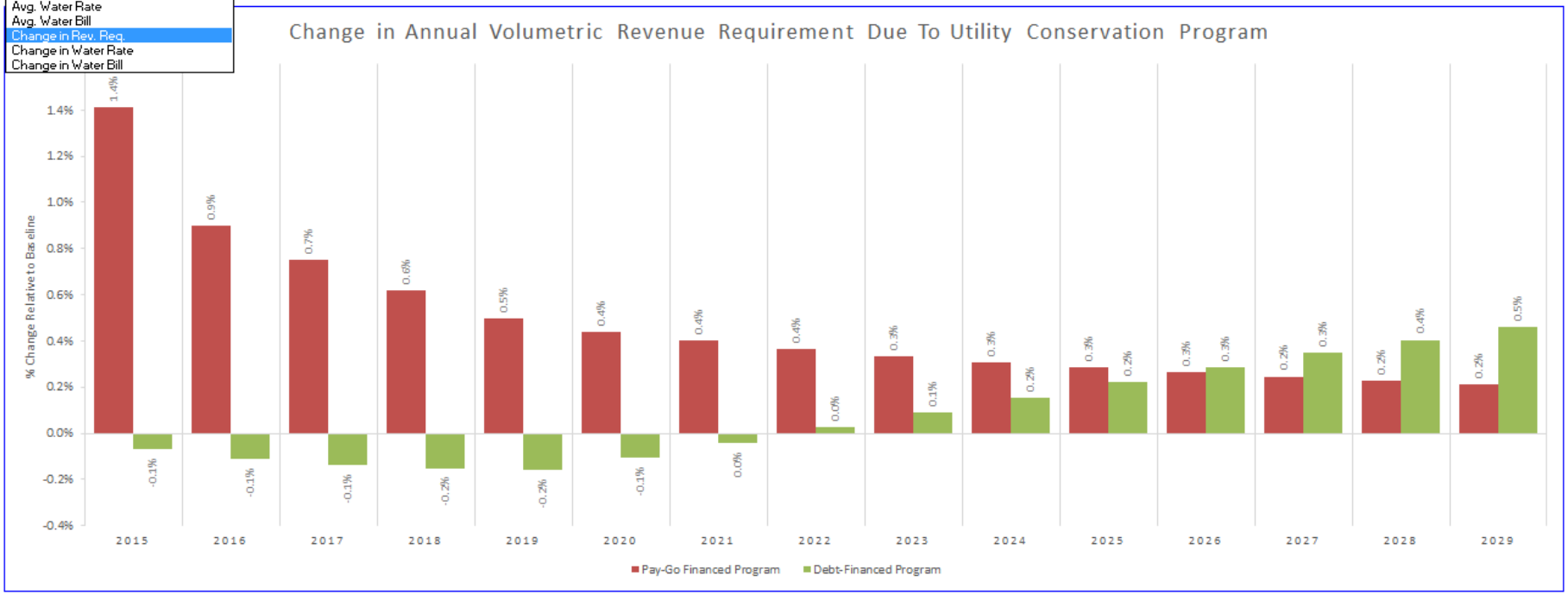
Change in Rev. Req.

- Revenue Requirement
- Avg. Water Rate
- Avg. Water Bill
- Change in Rev. Req.
- Change in Water Rate
- Change in Water Bill

Debt Financing Term (Yrs): 15

Years to Display in Chart: 15

Chart Explanation



Baseline Volumetric Revenue Requirement, Average Rate, & Average Bill

Baseline Water Sales Forecast (from 2. Specify Demands)

Customer Class	Units	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	202
Single Family	AF	43,779	43,800	43,827	43,851	43,880	43,913	44,069	44,229	44,393	44,560	44,731	45,024	45,32
Multi Family	AF	3,324	3,309	3,295	3,281	3,268	3,257	3,254	3,252	3,250	3,250	3,250	3,259	3,26
CII	AF	13,458	13,481	13,504	13,528	13,553	13,578	13,641	13,705	13,769	13,833	13,898	14,000	14,10
Irrigation	AF	6,729	6,748	6,767	6,787	6,806	6,825	6,864	6,902	6,940	6,979	7,017	7,075	7,13
Not in use	AF	0	0	0	0	0	0	0	0	0	0	0	0	
Not in use	AF	0	0	0	0	0	0	0	0	0	0	0	0	
Not in use	AF	0	0	0	0	0	0	0	0	0	0	0	0	
Not in use	AF	0	0	0	0	0	0	0	0	0	0	0	0	
Not in use	AF	0	0	0	0	0	0	0	0	0	0	0	0	
Total	AF	**67,289**	**67,338**	**67,394**	**67,447**	**67,507**	**67,572**	**67,827**	**68,087**	**68,352**	**68,622**	**68,896**	**69,359**	**69,82**

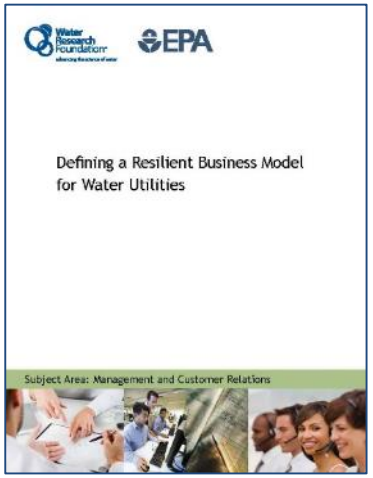
Resources and Tools for Utility Managers

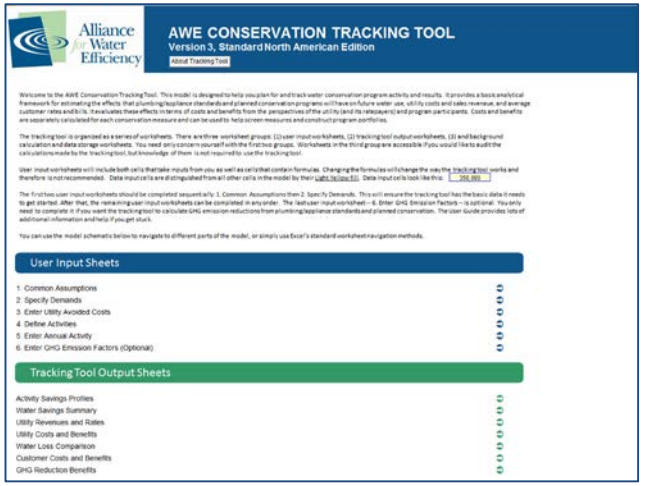
Tools for Every Step

- Guidance available from many sources, on several key topics:
  - Assessing Your Revenue Model
  - Rate Design and Evaluation
  - Communicating with Stakeholders
  - Financial Planning and Management
- See Resource List in packet for links

Assessing Your Revenue Model

- EPA/WaterRF: Defining a Resilient Business Model for Water Utilities
- AWE Water Conservation Tracking Tool
- UNC Rates Dashboards
- AWE Self Assessment Flowchart





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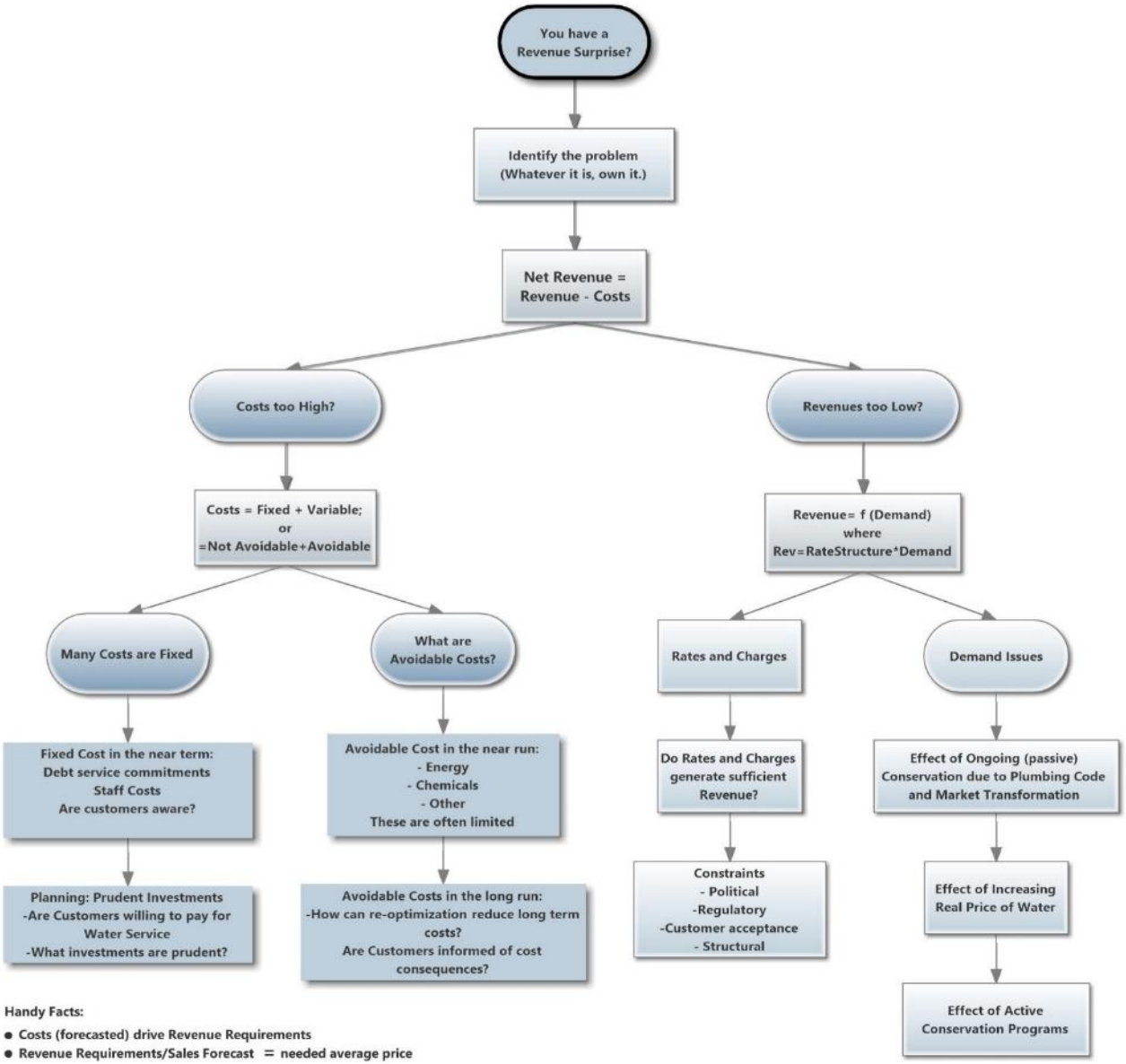
AWE Self-Assessment Flowchart

How to Avoid Revenue Surprises: Defining the Problem



Handy Facts:

- Costs (forecasted) drive Revenue Requirements
- Revenue Requirements/Sales Forecast = needed average price

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UNC School of Government Environmental Finance Center

MA Water and Wastewater Rates Dashboard

Rates as of July 1, 2017

Dashboard updated: August 28, 2018

Tighe&Bond Engineers | Environmental Specialists

https://efc.sog.unc.edu/resource/massachusetts-water-and-wastewater-rates-dashboard

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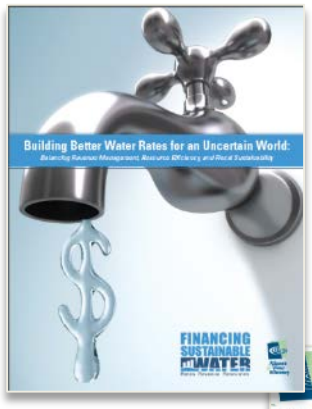
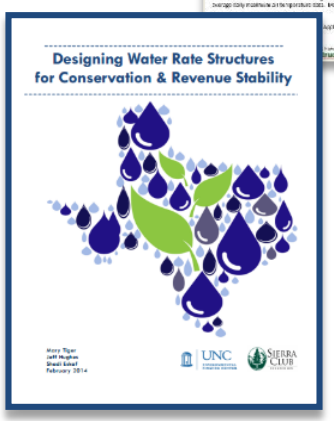
Rate Design and Evaluation

- AWE Financing Sustainable Water Resources
  - Understanding the Role of Ratemaking
  - Rate Design, Evaluation, Implementation
  - Highlighting the benefits of Efficiency
- Designing Rate Structures for Conservation and Revenue Stability (UNC/Sierra Club)
  - Innovative Rate Structures





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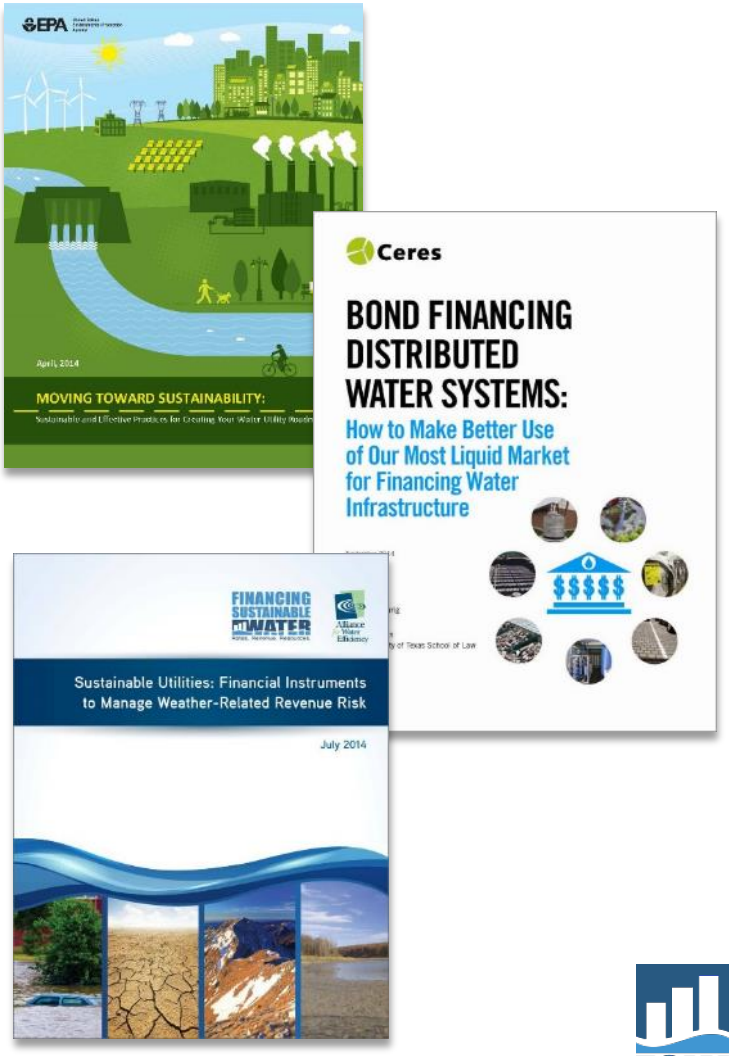
Communicating with Stakeholders

- Handbook Implementation Chapter
- New Multimedia Assets
  - AWE “What’s Water Worth” video for customers
  - UNC EFC Water¢lips: Video Series for Water Utilities, their Boards, and Funders
- Rate Approval Process Communication Strategy and Toolkit-WaterRF 4455
  - Communicate the need and impact of rate adjustments with new tool RateCase

Financial Planning and Management

- EPA: Sustainable and Effective Practices for Creating Your Own Water Utility Roadmap
- Ceres: Bond Financing Distributed Water Systems
- AWE: Financial Instruments for Managing Weather Risk



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FSW: Key Concepts

- Revenue instability is a feature of ALL rate structures
- Efficiency objectives should be identified at the start
- One size does not fit all
- Embracing uncertainty enables better decision-making
- Better rate analysis requires good data
- Customer understanding and empowerment is key
- Sound financial policies can support fiscal sustainability

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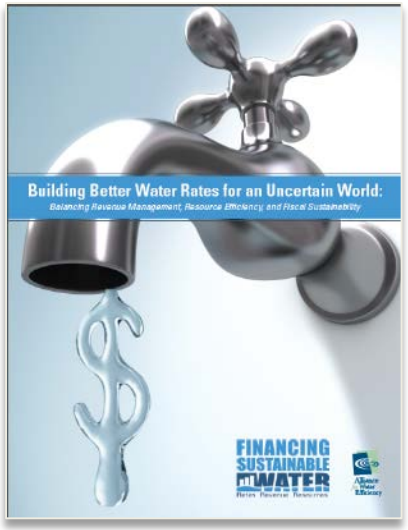
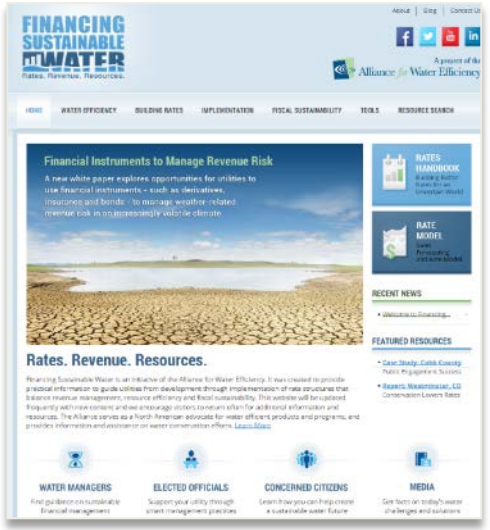
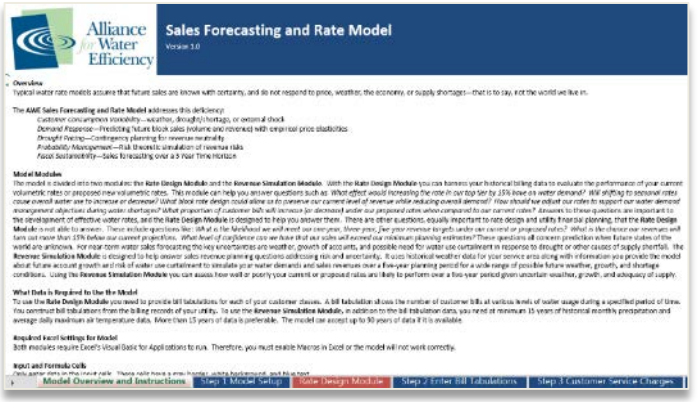
What is Financing Sustainable Water?

- **Building Better Rates in an Uncertain World:** A Handbook to explain key concepts, provide case studies and implementation advice
- **AWE Sales Forecasting and Rate Model:** Innovative, user-friendly tool to model scenarios, solve for flaws, and incorporate uncertainty into rate making
- **FinancingSustainableWater.org:** Web-based resources to convene the latest research and information in one location







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The Heart of the Problem

- Water rates have traditionally been focused solely on historical cost-recovery
- When system costs change quickly, and perhaps unpredictably, historical rates do not reflect today's cost consequences
- Rates do not then give customers correct information to make consumptive decisions

An Alliance for Water Efficiency Handbook

Building Better Water Rates for an Uncertain World

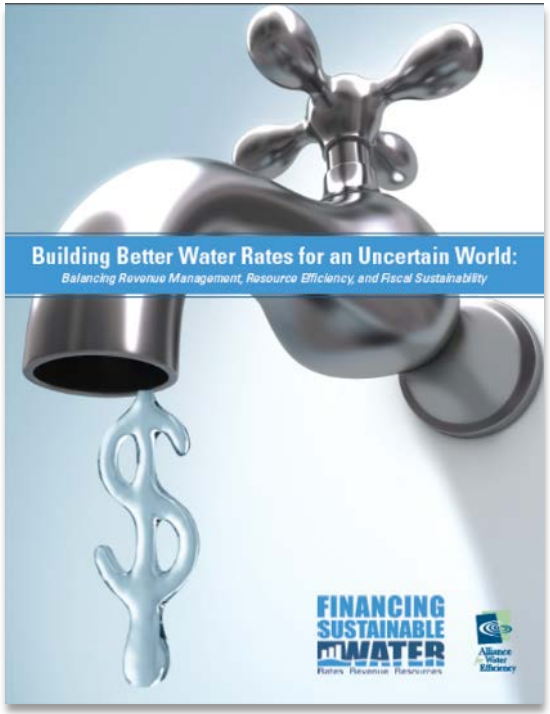
Balancing Revenue Management, Resource Efficiency, And Fiscal Sustainability

Thomas Chesnutt, A&N Technical Services

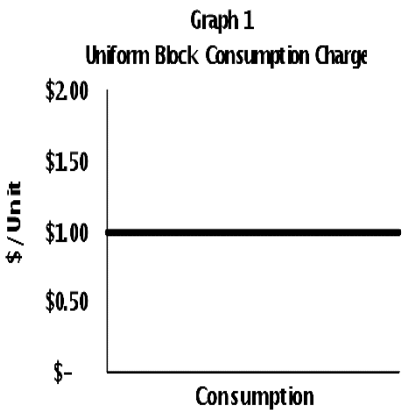
SECTION I: Introduction
SECTION II: Today's Imperative for Utility Financial Management
SECTION III: The Role of Ratemaking
SECTION IV: Building a Better (Efficiency-Oriented) Rate Structure
SECTION V: Financial Policies & Planning for Improved Fiscal Health
SECTION VI: Implementing an Efficiency-Oriented Rate Structure

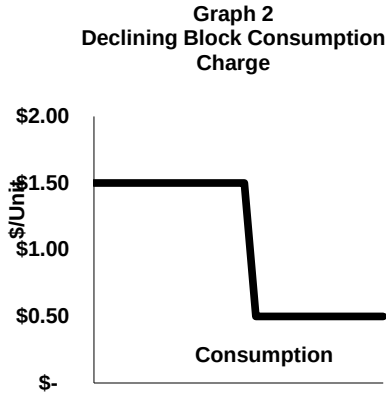
Appendices

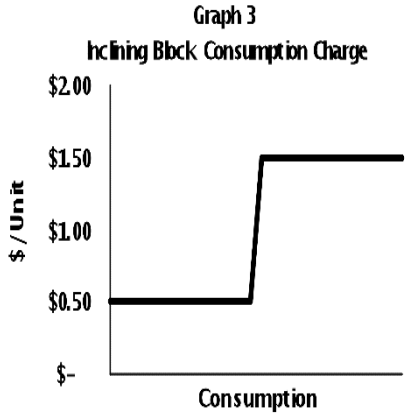
- Appendix A – Costing Methods
- Appendix B – Demand and Revenue Modeling
- Appendix C – AWE Sales Forecasting and Rate Model User Guide

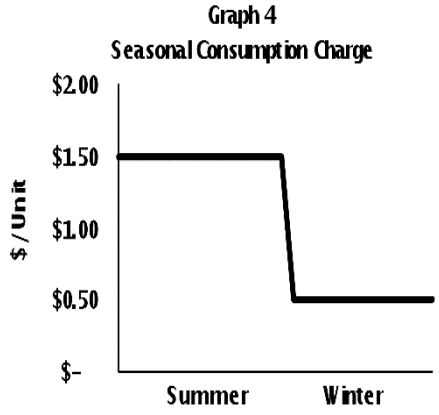


Introduction to Rate Setting





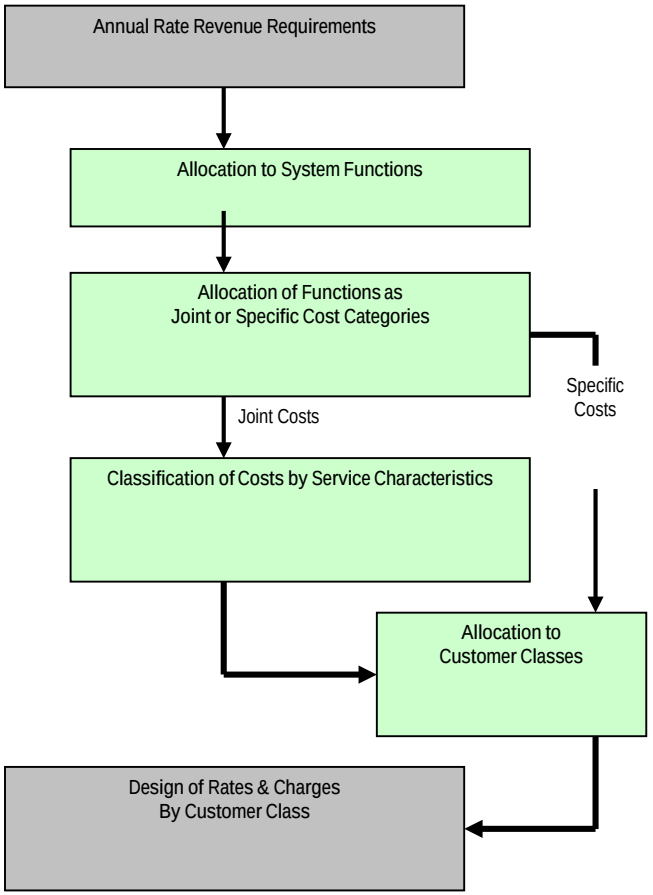




- Budget-based water rates
- Marginal/Incremental Cost pricing
- Volumetrically-based Fixed Charges
- “Value of Service” pricing
- Policy-based rates
- Drought pricing
- Additional “innovative” rate structures

Building an Efficiency-Oriented Structure

- Identify and Prioritize Ratemaking Objectives
- Determine Revenue Requirements
- Allocate Costs
- Design A Rate Structure
- Evaluate the Rate Structure against Objectives
- Decide on a Rate Structure



What Answers Are Needed?

In an uncertain world, what information could lead to better water rates?

- *Customer Consumption Variability*—How can weather, drought/shortage, or external shock affect customer consumption?
- *Demand Response*—If I change rates, what happens to demand volume and revenue?
- *Drought Pricing*—How should I plan for water rates under the contingency of nonzero drought/shortage occurrence?
- *Probability Management*—What is the likelihood of deficit?
- *Fiscal Sustainability*—What are likelihoods over a 5-year time horizon
- *Affordability*—Can customers afford water service?

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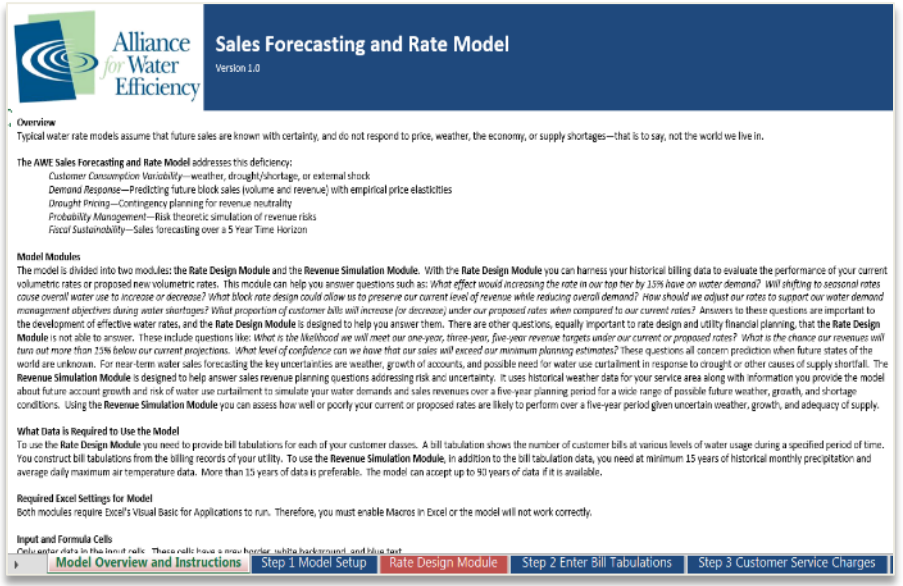
Tools to Evaluate Rates

- Modeling Water Demand Variability
- Modeling Water Revenue Variability
- Customer Bill Analysis
- Affordability Assessment
- Assessing Fiscal Sustainability
- The AWE Sales Forecasting and Rate Model can do all this!



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Affordability Resources

- Average Bills being less than some fraction of median income in community (as defined by USEPA) does not guarantee “affordability”
- Need in-depth, informative understanding of affordability in your service area
- Resources:
  - UNC EFC Water Rates Affordability Assessment Tool
  - The *Affordability Assessment Tool for Federal Water Mandates* from AWWA, WEF and the US Conference of Mayors

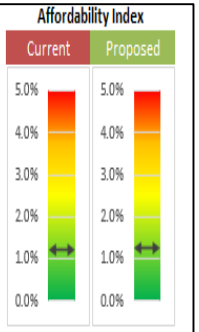
Affordability of Water Service

- AWE Sales Forecasting and Rate Model helps anticipate the impact of rate changes
- This can be used to help clearly explain changes to customers, Councils and Boards
- Provides clarity, reassurance, and an opportunity to make changes before a rate adjustment takes place

% Change in Average and Median Annual Water Service Cost by Customer Class

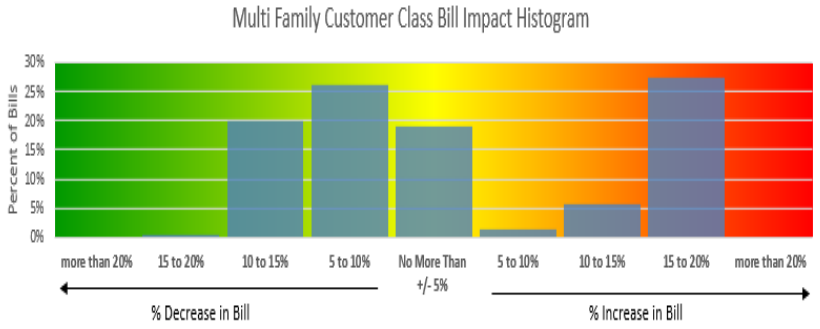
Customer Class	Average Annual Water Service Cost			Median Annual Water Service Cost		
	Current	Proposed	% Change	Current	Proposed	% Change
Single Family	$777	$805	3.5%	$650	$672	3.3%
Multi Family	$4,254	$4,393	3.2%	$1,930	$1,994	3.3%
CII	$3,323	$3,464	4.3%	$1,481	$1,556	5.0%
Landscape	$5,599	$6,094	8.8%	$2,503	$2,771	10.7%
Not in use						
Not in use						

Affordability index equals the median annual water cost for the primary residential customer class divided by median household income.



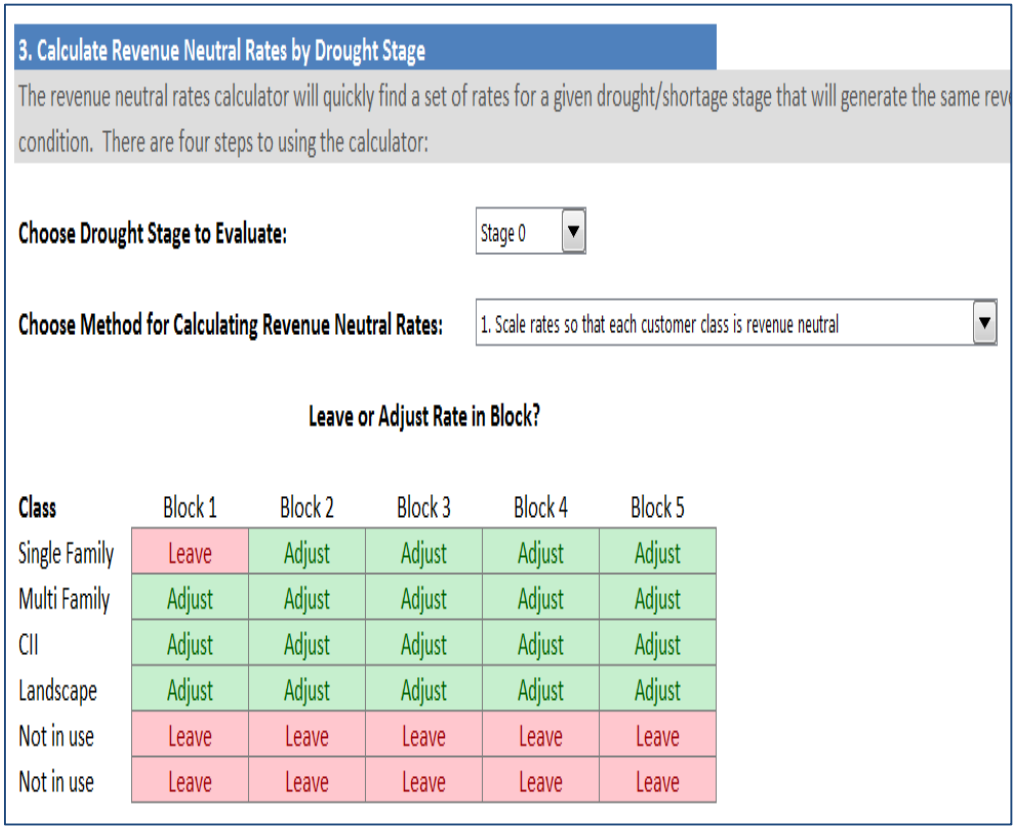
Bill Impacts Table

Customer Class	% of bills decreasing by				No More Than	% of bills increasing by			
	more than 20%	15 to 20%	10 to 15%	5 to 10%	+/- 5%	5 to 10%	10 to 15%	15 to 20%	more than 20%
Single Family	0%	0%	21%	38%	9%	4%	17%	11%	0%
Multi Family	0%	0%	20%	26%	19%	1%	6%	28%	0%
CII	0%	0%	15%	14%	23%	15%	14%	18%	0%
Landscape	0%	0%	19%	10%	13%	28%	4%	26%	0%
Not in use									
Not in use									



Drought Pricing for Revenue Neutrality

- Shortages are *when*, not *if*.
- Imposing curtailments on customers affects revenues.
- Drought rates that maintain revenue neutrality through various drought stages can be planned for, communicated, and effectively implemented.



3. Calculate Revenue Neutral Rates by Drought Stage

The revenue neutral rates calculator will quickly find a set of rates for a given drought/shortage stage that will generate the same rev condition. There are four steps to using the calculator:

Choose Drought Stage to Evaluate: Stage 0

Choose Method for Calculating Revenue Neutral Rates: 1. Scale rates so that each customer class is revenue neutral

Leave or Adjust Rate in Block?

Class	Block 1	Block 2	Block 3	Block 4	Block 5
Single Family	Leave	Adjust	Adjust	Adjust	Adjust
Multi Family	Adjust	Adjust	Adjust	Adjust	Adjust
CII	Adjust	Adjust	Adjust	Adjust	Adjust
Landscape	Adjust	Adjust	Adjust	Adjust	Adjust
Not in use	Leave	Leave	Leave	Leave	Leave
Not in use	Leave	Leave	Leave	Leave	Leave

Managing Weather Risk

- Wide swings in revenue between wet years and dry years
- Need to explore market-based financial tools for managing weather risk (insurance, derivatives)
- Example: municipal snow removal insurance
- AWE published white paper in 2014

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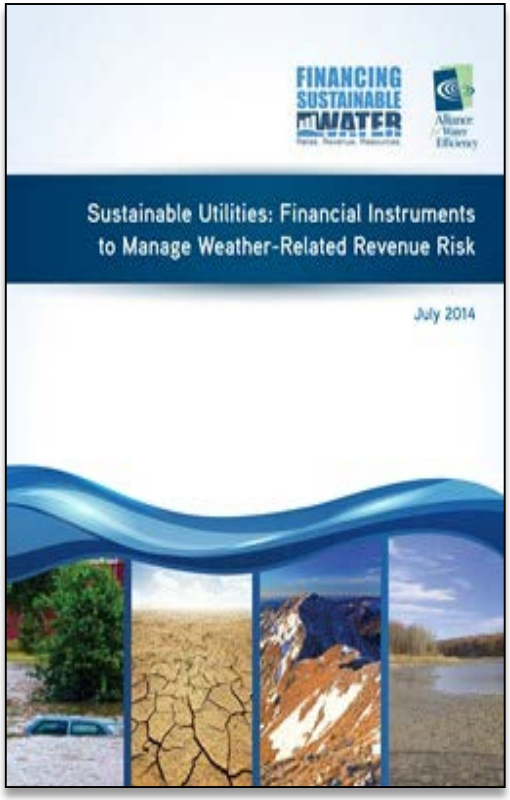

Financial Planning and Policies

- Revenue and Expense Forecasting
- Revenue Management and Fiscal Sustainability
- Rate Stabilization – Financial Planning
- Adaptive Rate Design
- Revenue Recovery Mechanisms
- Cost Recovery Mechanisms
- Conclusion: Transformational Change for Efficiency
- Case Study: Birmingham, Alabama
  (http://efc.web.unc.edu/2012/08/01/the-success-story-of-one-water-utilitys-financial-policies/)

Improving your Credit Rating*

1. A Rate Stabilization Fund (used not too often)
2. A low dependence on connection fees
3. Significant portion of revenues from fairly reliable customers
4. Insignificant additional upcoming debt
5. Fully-funded pension and post employment benefits
6. Strong management team

*Source: UNC Environmental Finance Center

How Much is Enough in Reserve?

- Policy Example: Contra Costa Water District
  - "The Rate Stabilization Reserve Fund will be drawn down to smooth rate increases consistent with the District's Rate Setting Policy and to ensure that minimum debt service coverage of 1.25 times annual debt service is met. Specifically, they will be applied in any year where other revenues are not sufficient to meet the required debt service coverage ratio of 1.25 times. They will also be applied if meeting only minimum coverage levels could result in the District's bond ratings being downgraded."
- Probability Analysis in setting appropriate reserve levels:
  - Sam Savage and Shayne Kavanaugh, The Sequestron Analytics Magazine, November/December 2013

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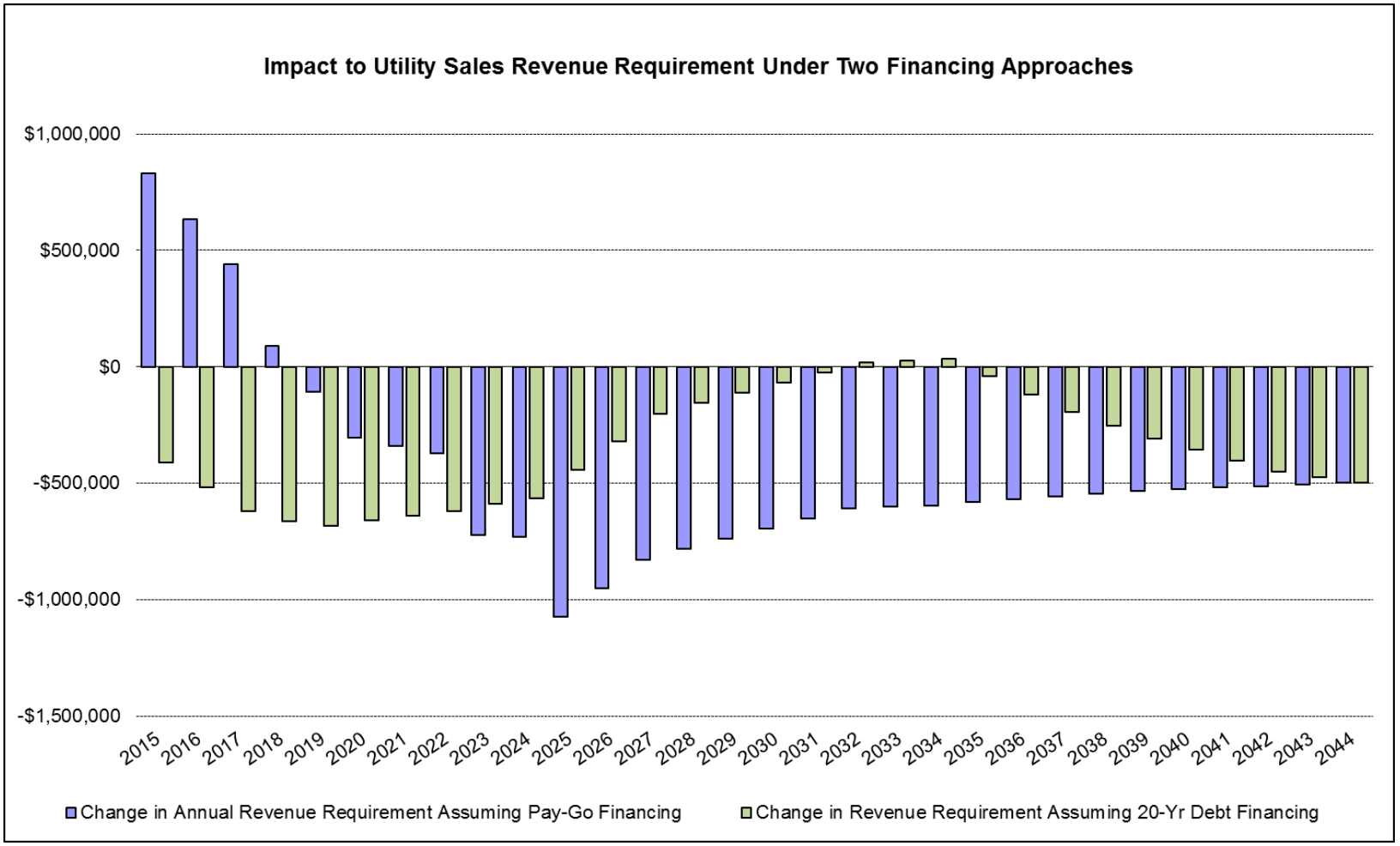
Revenue Requirement Impact



Why not Debt Finance Conservation?

- Most utilities do NOT debt finance conservation
- Issue is Government Accounting Standards Board (GASB) rules
- Accounting principles require assignment of an "asset" to the debt
- Conservation is not "owned" by the utility – it is usually on the customer's side of the meter
- Without "control of the asset" a utility CFO usually doesn't want to debt finance and have a liability without an asset on the balance sheet
- Solution: GASB will now allow as a "regulatory asset"

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Other Financing Solutions

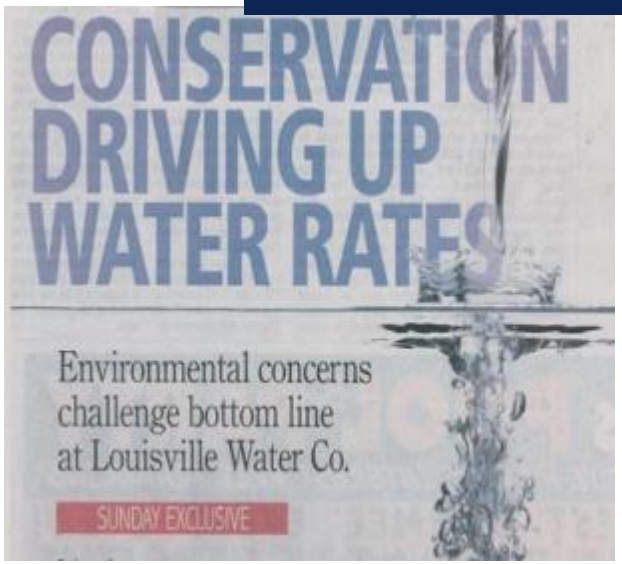
- WIFIA
- Other Opportunities
  - Green/Climate Bonds
  - State Revolving Funds
  - Public-Private Partnerships
  - Tax Initiatives
  - State-level funding (Texas Water Development Fund)

Communicating Change

The Political Reality

- We don't like to revise our rates
- It is politically unpopular, so rates are changed as little as possible
- The inevitable inflationary increase is postponed until it is a crisis, much less increases in other costs
- Conservation is often blamed for financial challenges – even when there are no active conservation programs in place
- This sends the wrong message to consumers

courier-journal.com
A GANNETT COMPANY



THE GLOBE AND MAIL

Reduced water use drains Toronto's funds for infrastructure upgrades

Raleigh Public Record

Raleigh's Water Conundrum: Conservation v. Rates

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Communicating the Value of Water

- Customer Videos
  - Explains water service and cost
  - Pipes, plants, power and people that keep water flowing
  - Video on Why Are Rates Rising?
  - Both are Free for utility use!
- Water Rates Messaging
  - Consumer-friendly language
  - Explain that conservation keeps rates DOWN in the long term
  - Use for speeches, talking points, press releases, etc.

"Every gallon saved is a gallon that doesn't need to be pumped, treated or delivered – those savings are reflected in your water bill. **Conservation helps slow the rise of water rates over the long-term."**

Water: What You Pay For

A4WE

Subscribe 284

1,924

Add to Share More

23 0

Good Question: Why Are My Water Rates Going Up?

A4WE

Subscribe 632

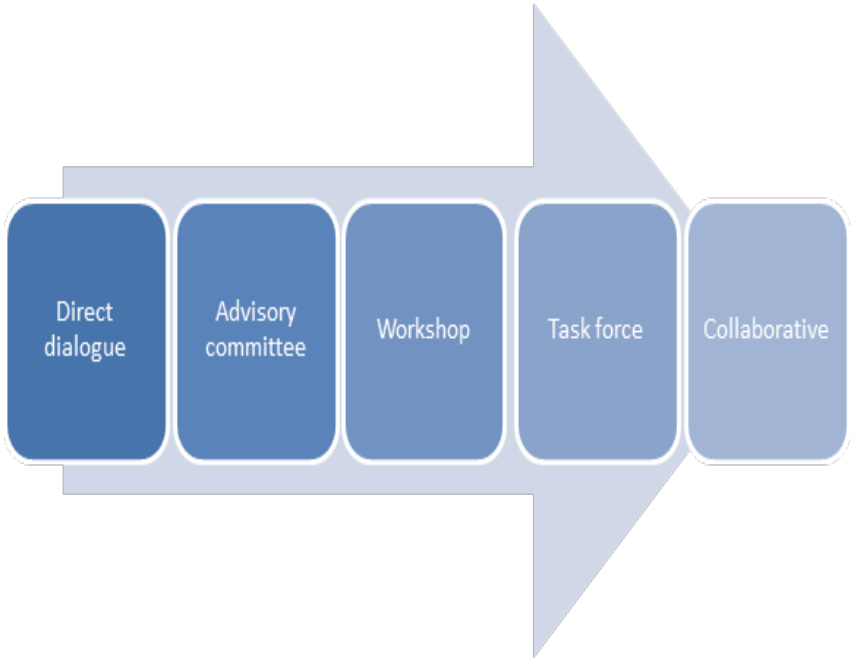
862 views

Add to Share More

6 0

Public Engagement

- Integrated and Collaborative Planning
- Securing Buy-In from Leadership
- Getting to Yes: Approval from Elected Officials
- Internal Communications and Customer Service
- The Public as Partners
- Clear Signals and Empowered Customers
- Maintaining Dialogue and Fine-tuning



Let's Change the Conversation

- Water Rates Message Plan
- Jargon-free messages on:
  - The service and value water utilities provide
  - Benefits and value of efficiency investments
  - The need for a rate revision or new rate structure
  - The relationship between conservation and rates
  - The impact of drivers such as drought or water quality
- Customizable to tell your story!
- www.FinancingSustainableWater.org

Alliance for Water Efficiency

FINANCING SUSTAINABLE WATER
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AWE Water Rates Message Plan

The Alliance for Water Efficiency has developed a set of key messages for utilities implementing conservation and efficiency-oriented rate structures or rate revisions. These messages have been developed to help utilities communicate to ratepayers, the social, fiscal and regulatory challenges that all utilities face, without jargon. As more regions become concerned with drought, crumbling infrastructure and population growth, these messages highlight the benefits and value of promoting water conservation and the significance of investing and planning for long-term water use efficiency solutions. Finally, these key messages may be helpful to support outreach to drive change in public perception, as utilities implement new rate structures (or a rate revision), garner support for new water resources, cultivate local support to repair aging infrastructure, and seek to grow support to add modern, more reliable technology to sustainably resolve our water supply issues.

Messages are the "elevator pitch" for communicating with the public. Messages summarize issues and must be backed up by facts. Key messages help **prioritize** key points; **focus** the speaker on what is most important; and help ensure **consistency** across written and verbal communications.

Utilities change their rate structures or increase rates under these broad scenarios, including:

- Drought or shortages of local water supplies (e.g. like pressures on groundwater);
- Operating and maintaining a reliable water system 24/7/365, including replacing aging infrastructure, responding to regulatory requirements, and addressing increasing costs (e.g. energy, safety);
- Population growth, including stretching existing supplies while building new capacity;
- Crumbling infrastructure and the significance of how a reliable water supply contributes to the growth and livelihood of the local economy;
- Regulatory mandates from local or state levels to ensure a safe and high quality supply of affordable and reliable drinking water; and
- Meeting sustainability objectives (e.g. long-term planning for the region and economy, including preparing our infrastructure to withstand extreme weather conditions, among many other disasters).

The messages have been developed to accommodate each utility's unique rate-setting scenario, and should be customized or adapted as needed to address specific challenges and/or objectives. For additional guidance on how to use these messages, please refer to the AWE Message Protocol and Q&A document on www.FinancingSustainableWater.org.

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FINANCING SUSTAINABLE WATER

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A project of the Alliance for Water Efficiency

Rates. Revenue. Resources.

Financing Sustainable Water is an initiative of the Alliance for Water Efficiency. It was created to provide practical information to guide utilities from development through implementation of rate structures that balance revenue management, resource efficiency and fiscal sustainability. This website will be updated frequently with new content and we encourage visitors to return often for additional information and resources. The Alliance serves as a North American advocate for water efficient products and programs, and provides information and assistance on water conservation efforts. Learn More

WATER MANAGERS

Find guidance on sustainable financial management

ELECTED OFFICIALS

Support your utility through smart management practices

CONCERNED CITIZENS

Learn how you can help create a sustainable water future

MEDIA

Get facts on today's water challenges and solutions

RATES HANDBOOK
Building Better Rates for an Uncertain World

RATE MODEL
Sales Forecasting and Rate Model

RECENT NEWS

- Welcome to Financing...

FEATURED RESOURCES

- Case Study: Cobb County
  Public Engagement Success
- Report: Westminster, CO
  Conservation Lowers Rates

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