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Rate Approval Process Communication Strategy and Toolkit

Web Report #4455a

Subject Area: Management and Customer Relations




Rate Approval Process Communication Strategy and Toolkit

About the Water Research Foundation

The Water Research Foundation (WRF) is a member-supported, international, 501(c)3 nonprofit organization that sponsors research that enables water utilities, public health agencies, and other professionals to provide safe and affordable drinking water to consumers.

WRF's mission is to advance the science of water to improve the quality of life. To achieve this mission, WRF sponsors studies on all aspects of drinking water, including resources, treatment, and distribution. Nearly 1,000 water utilities, consulting firms, and manufacturers in North America and abroad contribute subscription payments to support WRF's work. Additional funding comes from collaborative partnerships with other national and international organizations and the U.S. federal government, allowing for resources to be leveraged, expertise to be shared, and broad-based knowledge to be developed and disseminated.

From its headquarters in Denver, Colorado, WRF's staff directs and supports the efforts of more than 800 volunteers who serve on the board of trustees and various committees. These volunteers represent many facets of the water industry, and contribute their expertise to select and monitor research studies that benefit the entire drinking water community.

Research results are disseminated through a number of channels, including reports, the Website, Webcasts, workshops, and periodicals.

WRF serves as a cooperative program providing subscribers the opportunity to pool their resources and build upon each other's expertise. By applying WRF research findings, subscribers can save substantial costs and stay on the leading edge of drinking water science and technology. Since its inception, WRF has supplied the water community with more than $460 million in applied research value.

More information about WRF and how to become a subscriber is available at www.WaterRF.org.

Rate Approval Process Communication Strategy and Toolkit

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FOREWORD

The Water Research Foundation (WRF) is a nonprofit corporation dedicated to the development and implementation of scientifically sound research designed to help drinking water utilities respond to regulatory requirements and address high-priority concerns. WRF's research agenda is developed through a process of consultation with WRF subscribers and other drinking water professionals. WRF's Board of Trustees and other professional volunteers help prioritize and select research projects for funding based upon current and future industry needs, applicability, and past work. WRF sponsors research projects through the Focus Area, Emerging Opportunities, and Tailored Collaboration programs, as well as various joint research efforts with organizations such as the U.S. Environmental Protection Agency and the U.S. Bureau of Reclamation.

This publication is a result of a research project fully funded or funded in part by WRF subscribers. WRF's subscription program provides a cost-effective and collaborative method for funding research in the public interest. The research investment that underpins this report will intrinsically increase in value as the findings are applied in communities throughout the world. WRF research projects are managed closely from their inception to the final report by the staff and a large cadre of volunteers who willingly contribute their time and expertise. WRF provides planning, management, and technical oversight and awards contracts to other institutions such as water utilities, universities, and engineering firms to conduct the research.

A broad spectrum of water supply issues is addressed by WRF's research agenda, including resources, treatment and operations, distribution and storage, water quality and analysis, toxicology, economics, and management. The ultimate purpose of the coordinated effort is to assist water suppliers to provide a reliable supply of safe and affordable drinking water to consumers. The true benefits of WRF's research are realized when the results are implemented at the utility level. WRF's staff and Board of Trustees are pleased to offer this publication as a contribution toward that end.

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EXECUTIVE SUMMARY

OBJECTIVE

The primary objective of this research project was to identify and develop communication approaches, messages, and tools that water utilities can use to communicate water rate and pricing changes more effectively to governing board members, and gain support for needed utility rate adjustments. This was accomplished by identifying the factors critical to successful rate case adoptions, identifying factors that tend to inhibit successful rate adoption, developing a framework for effective rate communications, and preparing a *Rate Communication Toolkit* that can be used to effectively communicate and garner support for rate adjustments.

The research aimed to determine the type of strategies and information that would be most effective in overcoming the obstacles to rate increase approvals, as well as the preferred styles and methods to communicate this information to governing board members. The communication framework presented in this report is intended to provide utility managers with insights and an effective approach to develop a robust communication platform between utility management and governing board members, and to identify and present example content that can be used to communicate the importance of a rate increase more effectively.

Addressing current and future utility challenges requires a diversity of messages, techniques, and methods to clearly define the problems the utility is facing in a way that resonates with governing board members. The result of the research is a *Rate Communications Toolkit* that contains several materials for utility managers to use to communicate and garner support for the rate adoption process. The toolkit was designed and prepared based on experience with past successes of rate case approaches and processes, research about the appropriate content and level of detail of communication materials, and consideration of additional factors that influence the success of a utility rate case.

BACKGROUND

Our nation's water utilities face a significant financial challenge due to increases in regulatory requirements, a nationwide need to repair and replace aging water systems, a decrease in water sales due to conservation, and economic cycles that limit the ability and willingness to raise rates during economic downturns. Water industry professionals have identified constraints on financial resources as a high-priority future concern. Estimates of resources needed for capital investment in infrastructure upgrades and renewal range from the EPA's estimate of $150 to $270 billion over the next 20 years, to the Water Infrastructure Network and American Water Works Association estimates of over $1 trillion over the next 25 years. Even with these pressing financial needs, many water utilities have difficulty raising rates. Consumer perception of the value of water, a municipality's need for money for other priorities, affordability issues, and a variety of other factors make it difficult for water utilities to increase water rates.

Given the long life of water system infrastructure, rehabilitation and replacement have not arisen as significant concerns until recently. The current generation of water utility customers will be the first, but not the last, that will need to focus intently on reinvestment with sustainable planning to accommodate needed maintenance at an affordable pace. This reinvestment will require adequate revenues and the adoption of utility rate increases over time.

Many of the challenges that water utilities face as part of their rate-setting process can clearly be identified as communication issues. Helping customers understand the value of water and the costs associated with ensuring reliable and adequate water delivery and making a strong connection between a new regulatory requirement and a rate change are examples of how improved communication can support water utility rate increases. Furthermore, when governing board members and customers have a negative perception of a utility, a lack of understanding of utility issues, or a lack of trust of a utility, then gaining approval for needed rate changes can be an uphill battle.

APPROACH

The approach used to complete this research project included the engagement of key stakeholders involved in utility rate development and the communication process. These stakeholders included two groups: (1) utility management and staff, and (2) governing board members. These two groups were engaged throughout the project to gain their perspectives on effective processes, strategies, messages, and lessons learned for utility rate communications.

The research began with a review of pertinent literature related to water utility communications. Focal points of the literature review included financial challenges facing water utilities, the rate setting environment, components of a successful communication strategy, and messages for rate setting. The review also included a brief evaluation of literature pertaining to rate communications associated with other utility sectors whose utility rates are subject to review and approval from governing bodies, such as the electric and natural gas sectors. In an effort to gain a global perspective, the literature review also examined a sample of international approaches to water utility rate case development and communication to identify global best practices in rate communications.

Next, a written survey was prepared and sent to utility managers and governing board members aimed at identifying the critical elements of successful rate case communications. Group and one-on-one interviews with governing board members and utility managers were held with water utilities of various sizes and governance structures from across the country. The interviews covered topics including the success of current rate case approaches; general perceptions of the current rate approval process; and opinions concerning the appropriate content, level of detail, presentation style, and other factors that could influence the success of a utility rate case. Workshops and focus group webinars were held with utility managers and governing board members to gather additional information regarding successful rate case communications to supplement the results from the written survey.

Based on the research described above, a rate communication framework was developed that outlines the components of a long-term rate communication strategy. The framework identifies each step in the communication process, provides guidance to utilities on how to identify where they are in the process, explains audience needs, and suggests types of communication that will be most successful. Finally, a *Rate Communications Toolkit* was prepared to provide several tools to utilities for developing and implementing their own effective rate communication strategy.

RESULTS AND CONCLUSIONS

Many of the challenges utilities face during the rate-setting process can clearly be identified as communication issues. Governing board members and customers need a greater understanding of the value of water, the need for infrastructure reinvestment, the need for rate adjustments, and

the benefits that the investment can bring to the service area and community. Results showed that there is a diversity of approaches used across the country to prepare and present rate adjustment requests to governing boards for approval, such as presenting single-year and multi-year rate requests, presenting the request as part of, or separate from, the budget process. The results also showed that water rate increases recommended by utility managers to their governing boards varied greatly, but most rate requests were for rate increases in the range of 1 to 12%. Furthermore, the majority of the governing boards that were surveyed (92%) approved the rate modifications that were requested of them. However, approximately 45% of utility managers reported that the rate increases requested and approved would fail to cover the capital needs of the system. This is a concerning finding. This may occur because some utilities propose rate increases that they think the governing board will approve, rather than what they think they actually need. Further, it indicates the prevalence of a potential lack of effective communication between utility managers and governing board members about the need for adequate rate increases.

Research findings suggest that building trust in the utility is vitally important in securing necessary rate increases for investment in utility systems. Trust in the utility can be built by improving relationships with governing board members and the public, following through on commitments, conducting business in an open and transparent manner, focusing on customer service, and being visible and active in the community. This idea, that trust is key to rate adoption success, is further supported by research results indicating that utilities that are overseen by more experienced staff members are more likely to ask for and receive approval for financially sufficient rates. This indicates that more experienced staff members may have deeper relationships with governing board members. Responses from utility managers and governing board members throughout the project highlighted the importance of personal relationships, credibility, and integrity to trust building.

Several communication-based strategies for building trust were identified through the research. These included focusing the entire utility organization on customer service; following through on commitments to the governing board and the community; being open, transparent, and consistent in communications with governing board members and the public; and being highly visible and involved in the community. Each of these strategies are long-term, foundational strategies that help make adopting rate increases a relative non-issue.

The research results also indicated that governing board members make their rate adoption decisions based most significantly on:

1) The long-term impact on the financial condition of the utility
2) The physical condition of the utility
3) Compliance with regulations
4) Immediate impact on the financial condition of the utility
5) The long-term affordability of water for residential customers

Furthermore, the research suggested that utility managers might underestimate the value that governing boards place on linking rate adjustments to specific long-term financial needs, since utility management often placed a lower value on finance and infrastructure information than their governing board members did. Therefore, focusing the rate requests on the need for the rate increase and providing information to governing board members that highlight the benefit to the utility and the community can help satisfy the information needs of governing board members when making rate adoption decisions.

The specific types of information that board members preferred most in making their rate adoption decisions included the following:

- List of drivers for the rate increases, including prioritized capital improvement program (CIP) information, a connection with how it fits with the long-term utility strategy, results in meeting regulatory requirements, and addressing system condition issues
- Financial information, including a summary of future financial projections, rating agency opinions, and supporting credit rating metrics
- Utility accomplishments, including those related to the environment, sustainability, water quality, and regulatory compliance, and information on how the utility has saved money and has become more efficient
- Rate adjustment information and impacts to the rate payer, including rate study information showing that rates are effective and fair, and affordability information, such as cost as a percent of median household income (MHI) and number of shut-offs
- Comparison of rates and typical customer bills with other utilities
- Results from customer satisfaction surveys and other customer feedback regarding customer satisfaction

As part of the governing board and utility management interview process, the research team also identified the importance of focusing on the value and resiliency of the system and the need to address aging infrastructure as important messages. There was generally a strong sense of obligation by board members to build and maintain a resilient system that will serve the generations to come, as well as a desire to leave a good legacy for future generations. This finding highlights the importance of focusing more of their board and customer communications on the need for rate adjustments, the value that the system brings to the community, and how the CIP will help improve the resiliency of the system over time, rather than focus on the actual rate increase itself.

The need for a unifying and consistent theme or message was also identified as important to rate adoption success. Primary needs- or risk-based themes and messages identified that were considered successful centered around the following:

1) The risk of the utility not being able to provide reliable service to customers due to infrastructure failure and need for infrastructure updates
2) The effect of revenue reductions due to conservation and the most recent economic downturn on a utility's financial viability
3) The risk of regulatory non-compliance if the utility does not have the financial resources necessary to make necessary utility system upgrades

Continuous and consistent communication with governing board members and customers of the system was also highlighted as a successful strategy. This communication helps educate stakeholders about the issues driving the need for the rate increase, helps keep these issues in the forefront of decision makers' minds, and helps them buy-in and take ownership of the needs and challenges. Furthermore, the results indicated that success of rate case approval will increase the more the public is engaged in the rate adoption process. Utilities that were successful in adopting relatively high rate increases generally had more public engagement in the rate adoption process,

further highlighting the importance of continuous and consistent communications with stakeholders.

How information is conveyed was found to be nearly as important as what information is conveyed. Communication issues are often resolved, and engagement is easier when the values of the listener are recognized and acknowledged by the communicator. Audiences need to know that the communicator cares before they care about what is being said (Covello et al. 2011). Since different audiences have different rate concerns and expectations, utilities can build support for rate increases by reflecting audience needs in a set of principles used to make decisions about rate changes. Guiding principles identified during the research included elements that increase customer confidence in the utility; allow stakeholders to view them as credible, salient, and performing effectively; and demonstrate a full understanding of the reliability-related requirements and concerns of customers. Identifying and sharing the principles that guide the rate-setting process helps to ensure that the audience understands the basic values that a utility brings to the rate process.

The research team identified four communication action areas that can help increase board member support for rate changes. These action areas are:

- Identifying the need for the rate change and the consequences (or benefits) to the utility if the board does not approve the rate change
- Understanding and preparing for the special communication needs of Governing Board members
- Connecting the need for the rate change with community values
- Building trust and understanding by being visible, transparent, and involved in the community

These four key communication action areas reflect the importance of creating a long-term communication strategy, as well as creating short-term messages that resonate. The research indicated that neither short- nor long-term strategies alone are sufficient. Support for rate approvals requires pairing long-term, on-going communications that develop trust and understanding with short-term communications that focus on request-specific messages. An examination of the communication action areas also reveals the need for utilities to effectively communicate directly with board members. However, board members are frequently political, and therefore extremely sensitive to community perceptions. Therefore, to truly build board member support, utilities must also build community-wide trust in the utility and grow the community's understanding of utility challenges. With the community already in a position of support, board members will be much more likely to support rate change requests.

Governing board members, customers, and people in general, have the capacity to hear one message at a time, and need to hear a message multiple times before they really "hear" it. Therefore, it is important to develop a message with a consistent theme and ensure that the message is conveyed consistently. When developing the "one theme," it is important to tailor the theme to the values of the specific audience, and consider how the changes in utility rates are reflected. Several messages that were identified as generally being effective in gaining support for utility rate adjustments included those that demonstrated:

- The utility's commitment to efficiency (e.g., financial needs have been reduced as much as possible by maximizing efficiency before requesting a rate increase)

- Water utilities are critical to the quality of life (and services are provided 24/7)
- Failing infrastructure can hurt economic development efforts (e.g., adequate resources are required to maintain the reliability of the system, which is essential for the success of the local economy)
- The value of reliable service justifies the cost (e.g., reliable and adequate water supplies are essential for the success of the local economy and maintaining the quality of life in the community)
- A positive legacy for the next generation

Finally, the research indicated that successful rate cases are made over the long term, rather than in a few days, weeks, or even months before requesting a rate change. The foundational strategies that are important for rate adoption success may take years to accomplish, but the benefits that are realized with these strategies can provide the utility with revenue needed to support the utility's capital and operating needs, and position the utility for long-term financial stability and success.

APPLICATIONS / RECOMMENDATIONS

Water utilities can use the results of this rate communications research to garner greater rate adoption success as they plan strategically for capital project implementation and long-term financial sustainability. This research supports the importance of creating a utility culture with a strong focus on customer service, community involvement, and visibility as this type of culture provides a strong foundation for a successful rate adoption process. In addition, utilities should maintain a high level of continued communication with governing board members and customers; striving to educate them so they obtain a deep understanding of utility issues, challenges, and the need for rate adjustments.

At a more pragmatic level, when planning to communicate a rate change, utilities should start by preparing a long-term Rate Communication Strategy. The Rate Communication Strategy can be developed as its own separate communication strategy or, ideally, as an integral part of the utility's broader long-term rate communication design. When building a long-term rate communication strategy, utilities need to follow communication best practices and focus on the following four areas:

A. Identify the need for the rate request and the consequences to the utility if the board does not approve the rate change
B. Understand and prepare for the special communication needs of Governing Board members
C. Connect the need for the rate change with community values
D. Build trust and understanding by being visible, transparent, and involved in the community

In addition, the messages employed are more likely to resonate when tied to community values, such as system resiliency, leaving a good legacy for the generation, or affordability. Creating one overarching message or theme that conveys information about desired rate changes provides consistency between communications and presenters.

Utilities also need to tailor the level of detail and the method of communication to each audience's needs, share their rate-related guiding principles, get to know governing board members, and build strong relationships to build trust and support for rate adoption success.

MULTIMEDIA

In addition to the research report (#4455A), several other deliverables were developed to support successful rate adoption, and are as follows:

1. *Rate Communication Toolkit* (#4455B). This PDF provides a roadmap, worksheets, summary guidance, and training materials.
2. *Rate Case Visualization Tool*. This Excel-based webtool is an interactive scorecard for conveying key information to governing board members.
3. *Rate Communication Toolkit: Introductory Video.* This video introduces the *Rate Communication Toolkit* and describes how it can be used.

All deliverables are posted on the WRF website on the #4455 project page.

CHAPTER 1
INTRODUCTION

PURPOSE AND OBJECTIVES

The primary objective of this research project was to identify and develop rate communication approaches, messages, and tools that water utilities can use to communicate water rate and pricing changes more effectively to governing board members, and gain support for needed utility rate adjustments. This objective was accomplished by identifying the factors critical to successful rate case adoptions, the factors that tend to inhibit successful rate adoption, developing a framework for effective rate communications, and preparing a *Rate Communication Toolkit* that can be used to communicate and garner support for rate adjustments.

The research identified the type of strategies and information that would be most effective in overcoming the obstacles to rate increase approvals, as well as the methods in which to communicate this information to governing board members and customers. The communication framework (described in Chapter 2) is intended to provide utility managers with insights and an effective approach to developing an effective and robust communication platform between utility management and governing board members, and to identify and present example content that can be used to communicate the importance of a rate increase more effectively.

Fundamental to the development of a Rate Communication Strategy is an assessment of a rate case's viability. Understanding the nature of the challenges to be faced during the rate approval process can help guide the development of the content of a Rate Communication Strategy. This research identified the factors critical to successful rate case adoptions, as well as factors that tend to inhibit successful rate adoption. For the factors that prove to be obstacles to rate increase approvals, the type of information that would be most effective in overcoming the obstacles is identified, as well as the preferred methods in which to communicate this information to governing board members.

Developing the content for the information shared with governing board members to communicate the importance of a rate increase is an important aspect of a successful rate case. Equally as important is the design of this information and the methods by which it is shared. Addressing current and future utility challenges requires a diversity of messages, techniques, and methods tailored to clearly define the problems the utility is facing in a way that resonates with governing board members. Therefore, the objective was to develop a *Rate Communications Toolkit* containing a wide range of tools, tips, and guidance to support the rate adoption process based on information gained from the research regarding past successes of rate adoption approaches and processes, appropriate content and level of detail for materials prepared to communicate much-needed rate adjustments, and additional factors that influence the success of a utility rate case.

SCOPE OF THE RESEARCH

The scope of this research included:

- Completing a literature review to identify a baseline of knowledge regarding rate communication strategies, frameworks, and tools for effective rate communications
- Preparing a written survey of local governments to identify water utility rate case communication needs

- Facilitating interviews with utility practitioners and governing board members to obtain perspectives on rate communications
- Facilitating webinars and workshops to further identify utility practitioners and governing board perspectives on rate communications
- Establishing a communication framework upon which rate communication messaging can be based
- Developing indicators that can be used as measures of rate case viability
- Identifying lessons learned about drivers and messages that resonate and build support for utility rate case communications
- Developing a variety of ready-to-use and scalable tools to communicate and garner support for rate adjustments.

EXISTING COMMUNICATION EFFORTS AND PROGRAMS

Several national organizations have recognized the need for effective utility communications. For example, the American Water Works Association Research Foundation (AwwaRF, now renamed Water Research Foundation or WRF) published the document entitled *Strategic Communications Planning: A Guide for Water Utilities and Message Management: Effective Communication*, and WaterReuse published *Talking about Water*. In addition, WRF published *Communicating the Value of Water: An Introductory Guide for Water Utilities* in 2008, which summarizes the baseline body of research regarding water utility communications. The research completed and summarized in this report took into account, and was intended to build on, this prior research.

REPORT ORGANIZATION

The report is organized into six main chapters:

- Chapter 1: Introduction – provides a brief discussion of the purpose and objectives of this research project, the scope of the research, and existing communication efforts on the topic of utility rate communication.
- Chapter 2: The Rate Communication Toolkit – details the components of a successful rate adoption strategy and provides guidance on specific approaches and messages for communicating with not only elected and appointed officials, but also customers and the public. The main component of Chapter 2 describes a framework for rate communications, which serves as a basic model or template for rate communication strategies. This chapter introduces the *Rate Communication Toolkit*, which was designed for water utility managers with several tools that managers can use to successfully make their own rate adjustment cases. It provides a series of tools, tips, and guidance designed to support the identified rate communication action areas.
- Chapter 3: Methodology – discusses the approach used to achieve the main objectives of the research and prepare this report. Its content touches on specific documents and sources examined as part of the literature review, but its main purpose is to provide further insight into the research methods used to document utility rate case experiences and needs, establish the rate communications framework, identify indicators of rate case viability, develop messages that resonate, and construct tools that could be used to help support successful rate communications.

- Chapter 4: Literature Review Findings – discusses significant findings from the literature review including a discussion of the financial challenges faced by water utilities and the rate setting environment. This chapter includes findings regarding the components of a successful rate communication strategy, recommendations on the right messages to send as part of rate communication, and how to improve relations with local policymakers. The chapter also briefly summarizes lessons learned concerning utility rate setting processes on a global level and from utilities outside the water sector.
- Chapter 5: Rate Case Experience and Needs Findings – discusses the findings from the surveys with utility practitioners and governing board members and a summary of the findings resulting from the interviews, workshops, and webinars. Specific factors deemed to be critical to a rate case adoption and specific factors that were found to inhibit rate case adoption are highlighted in the conclusion of this chapter. The information gathered in this chapter serves as the basis for the framework and *Rate Communication Toolkit* described in Chapter 2.
- Chapter 6: Conclusions – highlights significant findings resulting from the research while providing specific recommendations for how utilities can more persuasively communicate their rate cases. This chapter also calls out specific topics that should be the focus of future research efforts to further develop communication strategies for successful rate adoptions.

CHAPTER 2
THE RATE COMMUNICATION TOOLKIT

INTRODUCTION

Water utilities require sufficient revenues to meet their mission and to provide their customers with safe, adequate, and reliable supplies of water now and in the future. However, even when governing board members understand a utility's need for additional revenues, they may remain reluctant to raise rates. Our research findings clearly show that effective communication between utility staff, management and board members helps overcome concerns, build community trust and understanding, and more easily obtain rate changes. However, like all powerful tools, new users will benefit from instructions, guidance, tips, and examples from proficient users.

This chapter describes the *Rate Communication Toolkit* that was prepared for water professionals based on the research findings. The toolkit is full of individual tools designed to work together, or alone, to support implementation of a successful rate communication strategy. The tools presented in this chapter are based on insights gained from the myriad research activities that occurred as a part of this project. The objective of this toolkit is to provide water professionals with everything they need to fully leverage the power of communication to positively affect the outcome of a rate request. Specifically, this chapter:

- Describes why a rate communication strategy is important.
- Summarizes the key findings of the research and identifies the communication action areas that utility professionals should employ to improve rate communication success.
- Provides examples of rate messages used successfully by other water utilities.
- Lays out the primary steps required to develop a long-term communication strategy.
- Provides the tools with instructions as well as a broad sample of rate focused messages used successfully by other water utilities.

In sum, this chapter provides the reader with a short discussion of why each communication action area was identified as critical, individual tools with tips developed by the research team to address specific action areas based on our research insights, and references to additional information in the report concerning the project methodology and findings.

THE NEED FOR A RATE COMMUNICATION STRATEGY

Water utility managers face numerous challenges in operating their utilities. These challenges may include, but are not limited to, population changes, aging infrastructure, regulatory requirements, and an increasing scarcity of suitable water supply sources. To address these challenges, water utility managers typically need additional revenue, and therefore need to raise user rates and fees more frequently and at higher levels. However, even when board members have an understanding of the need for additional revenues, they often remain reluctant to make rate approvals. This is due, at least in part, because board members are well aware that customers may oppose rate increases; as a result, these officials may resist acknowledging the necessity or value of critical utility investments. The difficulty in engaging governing board members may be further compounded by unrelated political motivations or by leadership that lacks the will to address

difficult problems. Furthermore, board members or other governing officials may lack financial expertise and hesitate to engage in an unfamiliar topic.

Discussing rate changes with decision makers is further complicated by the fact that rate change expectations are often different for internal and external audiences. For example, the primary rate expectation for internal staff may be to fund infrastructure improvements while for the public the primary expectation may be that the rate is fair, equitable, and easy to understand (Chapter 5). Governing Board members and other decision makers need to understand and be responsive to both types of expectations, which further complicate the rate conversation. In addition, a general lack of public awareness regarding the value of water and the costs associated with ensuring reliable, adequate, safe delivery further complicates any conversation about water rates. Finally, if governing board members or customers have a negative perception of the utility, a lack of understanding of utility issues, or a lack of trust in the utility, then gaining approval for needed rate changes can be difficult.

These challenges likely contribute to one of our primary research findings: even though many water utilities are successfully asking for and obtaining rate approvals, many utilities are not asking for and obtaining approval for rate increases at a level sufficient to adequately fund the needs of their systems or at a level that places the utility in a strong, stable fiscal position. Therefore, even utilities with a record of successful rate approvals may need to increase their ability to communicate in order to achieve rates that are sufficient for long-term fiscal health (Chapter 5).

Effective communication allows parties to share knowledge, gain understanding, and develop trust. However, effective communication is not easy; it requires an understanding of the information needs of specific audiences, as well as an understanding of how each audience wants to receive information and how detailed they want that information to be. Effectively communicating about rates also requires the ability to turn complex, layered financial data into digestible, relatable information.

KEY ACTION AREAS WHEN DEVELOPING AN EFFECTIVE RATE COMMUNICATION STRATEGY

Effective utility communication requires development of a long-term communication strategy. (Additional discussion of how to develop a long-term communication plan is provided in the toolkit.) However, the research team identified four key action areas that are unique to meeting the needs of audiences, particularly Governing Board members, when developing rate- related messaging. These are:

A. Identify the need for the rate request and the consequences to the utility if the board does not approve the rate change
B. Understand and prepare for the special communication needs of Governing Board members
C. Connect the need for the rate change with community values
D. Build trust and understanding by being visible, transparent, and involved in the community

These four key communication action areas reflect the unique needs of rate communication.

An examination of the communication action areas reveals the importance for utilities to effectively communicate directly with board members. However board members are frequently political and therefore extremely sensitive to community perceptions; therefore, to truly build board member support, utilities must also build community-wide trust in the utility and grow the community's understanding of utility challenges. With the community already in a position of support, board members will be much more likely to support rate change requests. The four action areas are described in greater detail below.

Action Area A: Identify the Need for the Rate Request and the Consequences to the Utility if the Board Does Not Approve the Rate Change

When governing board members and customers understand the need for the rate increase and the benefits to the utility if the rate is passed – or the consequences to the utility if the rate is not approved – then the rate adoption process is more successful. This is one of our primary research findings – do not talk about dollar amounts – talk about the need for the rate increase (Exhibit 2.1). When tied to the benefit, or consequence to the utility of the rate change, discussing the need for the rate change came out as the most important consideration when designing a strong communications strategy. For example, a utility might describe how a rate increase is needed to maintain critical infrastructure, and that this maintenance will benefit the utility by reducing the incidence of costly, catastrophic infrastructure failures. Several of the governing board members interviewed during the research explained that justifying the need for the increase was often the deciding factor between rate-case success and failure.

Exhibit 2.1
Example quotes from board member interviews

"Do not focus too much on the rate increase amount; rather, focus on the need and benefits to the customer of the capital improvements that are driving the rates."

"Justifying the need for the rate increase was often the deciding factor in rate-case success."

The utilities we spoke with who were not successful in getting their rate requests approved generously shared the communications they had used during rate cases. These communications efforts were almost entirely focused on the amount of the increase; the primary message was, "The utility needs this specific dollar amount." Context-weak messages, such as these, do not engage audiences and are easy to respond negatively to. Communication research provides us with two insights into this finding. First, engagement, which is difficult in our information-overloaded world, requires a connection to emotions. Second, good engagement provides the audience with an opportunity to take some action; for example Denver Water's current conservation theme is "Don't Be That Guy" with pictures of people flaunting bad water use. This is a great message as it combines humor (our most powerful engagement emotion) and an opportunity for direct action – don't waste water. Context-weak messages allow only for agreement or disagreement, with little room for discussion or providing input (Cialdini 2003). The rate approval process should be one of engaged understanding, which is part of the reason that rate-case presentations need to provide the rationale and context for a rate-change increase, rather than a focus on "just the numbers."

Turning a discussion about the amount of a rate request into a discussion of the need for a rate request requires developing an understanding of the benefit, or value, to the utility if the rate is approved – or the consequence, or risk, if the board does not approve the rate change. Table 2.1 lists several of the key need-based communication themes that we identified from interacting with participating utilities. The needs and benefits cited most often in the research survey included:

maintaining financial condition to protect the water utility bond rating, identifying new water sources to ensure adequate water supplies, satisfying the water needs of the community, and leaving a positive legacy for the next generation. A summary of the reasons identified in this research for supporting rate increases is provided in Chapter 5 (see Table 5.7).

Table 2.1
Key need-risk/benefit based themes

Need	Benefit	Consequence
Replace aging infrastructure	Reduction in pipe breaks, traffic jams, water outages	
Additional future water resources		Significant future water rationing during drought conditions
Maintain financial viability		Degraded bond rating
Treatment plant upgrades		Inability to meet new and revised regulatory requirements

Use These Tips for Identifying Rate Increase Needs, Benefits, and Consequences

The first step in being able to communicate effectively about a specific rate request is to identify the need and the associated benefit or consequence to the utility if the need is fulfilled or the risk/consequence if the need is not met. It is not necessary to talk about both a benefit and a consequence (in fact it will confuse your audience); rather, choose the outcome that is most compelling for your situation. In some cases the need is implicit – we need additional revenues to keep our bond rating high. In other cases, the need may be nebulous – we need additional revenues to support asset management.

Identify the need/risk frame as part of the initial rate review process. Don't wait until you have an agreed upon amount to ask for before you identify the rate need/risk. For example, instead of asking each utility department how much additional funding is needed, expand the question so that it includes gathering information regarding the risk/vulnerably associated with not having these additional resources, and asking for pictures, drawings, letters, cites, etc. that illustrate the risk succinctly. Because the people you are asking are busy, and this additional request for communication related materials may be new, it is important to frame your request carefully, and to repeat the request until you have gathered what you need.

General communication research concludes that the human mind can only effectively process three or fewer concepts at one time (Covello et al. 2011). This is important to understand

when identifying the rate needs to include in your messaging; if you start listing more than three needs/benefits you actually reduce the effectiveness of the communication rather than embellish it. Tools in the toolkit designed to support this action area include:

- Tool #1: Rate Communication Process Roadmap
- Tool #2: Rate Communication Process Worksheets
- Tool #3: Identifying the Need-Benefit Communication Focus

Action Area B: Understand and Prepare for the Special Communication Needs of Board Members

Another key research finding is that governing board members have specific rate-related communication needs that differ from those of other audiences. Interviews with utility management and governing board members revealed that working with board members and other elected officials requires utilities to:

- Plan ahead for the challenges inherent to communicating with policymakers.
- Build collaborative relationships with policymakers.
- Share metrics that matter in layers.
- Tell a rate story.
- Build community-wide utility trust and understanding.

Plan Ahead for the Challenges Inherent to Communicating With Policymakers

This research project uncovered numerous challenges plaguing communication between utility managers and governing board members. Most, as discussed earlier and throughout the report, emerge simply from the nature of political work. Elected officials answer to their constituents, and constituents often have difficulty understanding water utility challenges, such as how conservation can increase the unit cost of water or why some capital investments cannot be postponed. Board members often have a short decision or planning timeframe; many may see their position on the board as a stepping stone, and they do not plan to be on the board long term. Boards and councils may also have high member turnover rates, so that every rate discussion is likely to involve at least one new member unfamiliar with the issues and data. The interplay of these factors can lead board members to have a general aversion to rate increases. Utility managers can use strategic communication to overcome and address these challenges. This can include building collaborative relationships, understanding community needs, and selecting the most effective types of information and messages to share.

Build Collaborative Relationships With Policymakers

Our research identified that fostering a collaborative relationship with board members is one of the best ways to build support for rate increases. Many of the general managers interviewed stated that they have one-on-one discussions with board members long before any rate request vote is even scheduled; they develop an understanding for the community values individual board members represent and the information each one needs to justify a rate increase. They also build an understanding for board member rate-related educational needs. This information provides a foundation for their rate-related communications with board members.

A number of participating utilities also found that sharing multiple scenarios or alternatives and explaining the differences that each option represents in terms of service levels and impacts on rates was an effective communication approach with board members. This was a particularly useful approach when members of the board have different value drivers. For example, if you have one board member very concerned with the ramifications of the rate change on the economy and another concerned with the effect on the need for rate changes due to changes in demand forecasts, developing scenarios that illustrate the sensitive to the rate change on the benefits and/or consequences to both the economy and demand forecasts ensures all the necessary information is presented in an easy to understand format.

A case study developed by the Southern California Alliance of Publicly Owned Treatment Works concerning the Orange County Sanitation District illustrates this concept. The District needed to overcome a strained relationship with its board following 5 straight years of double-digit rate increases and another 5 years of the same level of rate increases requested in order to gain support to fund necessary capital improvements. The District successfully moved the conversation forward by instituting new, more collaborative staff presentations. The staff presentations provided information to the board that was based on four strategic areas: environmental stewardship, business principles, wastewater management, and workplace environment. The effect of various rate structures on each strategic area provided a values-based communication strategy that was not just fact-based, but also provided context and solicited input. The scenario-based review of options also included a discussion of the risks of not investing, or of investing at a lower level. Ultimately, the district's board approved the needed investment (SCAP 2008).

Collaborative communication requires educating utility board members on topics such as water system management, financing, rate setting and structures, operations and maintenance, applicable laws and regulations, ethics, and board responsibilities to be effective. Because of its importance, this type of training program is mandatory in Mississippi and Louisiana; other states, such as Kansas, Ohio, Kentucky, and Illinois, offer incentives for board member participation in similar programs. Building collaborative relationships also recognizes the ability of board members to provide valuable input on important issues, such as community benefits, finances, and the political landscape. Good communication always goes in both directions, between both the utility and the board member.

Building strong relationships with governing board members is important. If you can realize even just one significant relationship with a member interested in "owning" water issues, the utility can benefit from having an advocate on the board who could champion the efforts to help obtain rate increase approval. Additionally, some board members feel it is easier to understand utility issues if such issues are conveyed by another board member, rather than utility staff. Members can relate to other board members in a way that utility staff cannot.

Share Metrics That Matter in Layers

One of our key research findings is the desire of governing board members to have information conveyed to them in a summary format that provides a high-level overview of the rate increase needs, issues, challenges, and drivers for the need for the rate increase, without all of the specific details; they want to understand the metrics that matter at a high level.

However, the level of detail desired by governing board members is not one-size-fits-all. Individual preferences may be different from board member to board member (Exhibit 2.2). This means that utility staff have to share both high-level summary information and provide details if requested to do so. Some governing board members reported the desire for detailed information, such as engineering and rate-study reports. These members stated that the detailed information improved their confidence in the utility rate-case recommendations because the detailed information showed that the rate plan was well thought out and investigated.

Exhibit 2.2
Board member interview quote

"Utility staff need to be adaptive to the type of information council members prefer and how it is presented. This differs by council member."

Tell a Rate Story

A rate request concerns more than the need for money; a rate request concerns the history and future of a utility, as well as its present condition. Many of the utilities we interviewed as part of this research emphasized the need for all rate-request audiences to hear the utility's story so that listeners can put the rate request into a broader context. Developing and sharing a utility's story accesses our most basic and accessible form of communication: storytelling.

Build Community-Wide Utility Trust and Understanding

As politicians, many board members choose how to respond to a rate request based on their perception of the community's likely response. If the community does not trust the utility or has had bad experiences with the utility, board members may display a general lack of support for rate increases. However, if the community has a strong understanding of the challenges facing the utility and if the community trusts the utility to use funds efficiently and effectively, constituents are more likely to support a rate increase. With the community behind them, board members are more likely to be supportive, too.

Use these Tips for Understanding and Preparing for the Communication Needs of Board Members

Many tips are provided here for understanding and preparing for the unique communication needs of board members, including:

- Use a scenario-based approach to presenting rates to connect with the range of values that board members represent.
- Educate new members on rates. Use storytelling and educational tools. Reach out to Rural Community Assistance Program (RCAP) and other knowledgeable entities.
- Governing board members want to make sure the proposed rate case is viable. Provide summary information about rate case viability and details if requested.
- Share summary information using an interactive dashboard (example provided below), PowerPoint slides, handouts, and other summary formats, but also be prepared to supplement summaries with detailed reports and analysis. Add links to background supporting documents.

- Share the utility's successes and its challenges. A utility's story goes beyond the current rate request, connecting the storyteller with the audience through shared values and goals. Describe how the utility engages with the community, provides educational opportunities, and protects the environment and public health. Include first-person accounts and pictures.
- Know the audience. Although we think everyone wants to hear about the things that we think are important, humans are actually poor listeners; we want people to talk about what is important to us. If we acknowledge this most basic communication requirement – that to engage people, we need to identify what they think is important – we can develop communication strategies that move people beyond their preconceived opinions.
- Ask people what they care about. Work with the Utility Director to consider asking board members about their concerns
- Anticipate, prepare, and practice when we know we will have a communication challenge, such as working with policymakers who may have their own agendas (Covello et al. 2011). In the toolkit is a worksheet about knowing your board's communication needs that utility personnel can use. The information compiled in this worksheet can also be used to prepare a long-term communication strategy.

One of our key research findings is that board members need to feel confident that the rate case is viable. However, communicating layers of financial data that build a case for a rate request is difficult. Communication research indicates that personal interaction with data supports the understanding of complex issues and user confidence in both the data and how it is used in decision-making (Covello et al. 2011). An interactive tool can provide the opportunity to examine the data behind a proposed rate change. Creating and sharing rate-request information through an interactive dashboard also capitalizes on the fact that many people are visual or kinetic, hands-on, learners. Dashboards provide a mechanism for condensing large amounts of data and information into easily digestible communication aids.

Several tools in the toolkit that are designed to support this action area include:

- Tool #4: Metrics that Matter: Types of Information Desired by Board Members
- Tool #5: Metrics that Matter Presentation: A Rate Case Visualization Tool
- Tool #6: Effective Communication Using Excel Spreadsheets, Graphics, and Charts
- Tool #7: Special Board Situations: Guidance for Engaging in Critical Conversations
- Tool #8: Special Board Situations: Guidance on Using a Scenarios for Long-Range Planning
- Tool #9: Special Board Situations: Financial Training Tools

Action Area C: Connect the Need for a Rate Request With Community Values

Connecting the rate request with community values is another key research finding and represents a critical component of effective rate communication. This project focused on the specific communication needs of board members, and many board members are elected and are often concerned about their community's perception of rate requests. Even if a utility is not actively seeking customer and community support for a rate increase, utility personnel still need to be

sensitive to the public's perception of the request. The best way to meet board members' need for community support is to connect the rate request with community values.

Creating a set of guiding principles that share a utility's recognition of community values and needs is a great way to make a value-based connection with external stakeholders. Developing "guiding principles" (described below) can also be a great way to share the importance of value-based communication messages with board members.

Learn From Other Utilities Connecting with Community Values

Our research found that utilities can significantly increase customer willingness-to-pay when rate communications directly address customers' concerns related to reliability. Below, we share several examples.

Austin Water Utility (AWU) communications emphasize educating the community about not "taking water for granted"; this stemmed from lessons that the utility gained about AWU's values through a citizen task force and advisory groups. Based on its successful experiences, AWU recommended that other utilities consider the following actions:

- Emphasize the value of water, as well as the real cost of water (i.e., water is underpriced relative to its essential nature, and it is an expensive process to acquire, treat, and distribute water to customers); this represents a fundamental shift
- Put the situation in a national context – the "conservation conundrum" is not confined to any one locality; it is a problem shared across a great many communities
- At the same time, emphasize local factors – for example, in Austin, AWU emphasized conservation gains and the effect of drought
- Emphasize the specific value provided by the utility; start emphasizing value early, and make it a continuous effort and message

Use These Tips for Connecting with Community Values

Some tips for connecting with community values include the following:

- Articulate the principles that will guide rate setting at a utility in a cooperate process. Work with the utility's internal rate department, public outreach officers, management, and board members.
- During development of the guiding principles, use focus groups to gain feedback. The utility's objective should be to show the community members that it understands and is responsive to their rate based concerns; to know what these concerns are, utility personnel need to ask and listen.
- Once guiding principles are developed for the rate-setting process, work with utility outreach or public relations staff to ensure the effective distribution of the principles. At the very least, the guiding principles should appear on the utility website and be distributed at any meeting discussing rate changes. The guiding principles can be an important resource for sharing the utility's recognition of community values.

The tools in the toolkit that are designed to support this action area include:

- Tool #10: Rate Setting Guiding Principles

- Tool #11: Connecting with Community Values: Using Surveys and Focus Groups

Action Area D: Build Trust and Understanding by Being Visible, Transparent, and Involved in the Community

A primary research finding is that building community-wide trust and confidence in the utility is one of the best ways to ensure that the rate-approval process goes easily. Research results revealed several strategies that were successfully employed by utilities to establish a solid community-wide foundation for rate adoption success; all are based on the idea that utilities need to communicate with their public in an on-going transparent manner. These include, making communication about utility challenges on-going, articulating recent efficiencies, focusing the entire utility organization on customer service, being highly visible and involved in the community, following through on commitments to the governing board and the community, and sharing rate related guiding principles. Several of these ideas are discussed below.

Make Communication an Ongoing Activity

Throughout our research, utility managers and governing board members stressed the importance of continuous and consistent communication. This level of communication helps to educate audiences about the issues driving the need for the rate increase and helps them buy into and take ownership of the utility's needs and challenges. If utilities communicate with audiences on a frequent and consistent basis, audiences will know the utility, trust it, and will largely support well-designed and necessary rate increases. This level of community support is often reflected in the level of board member rate acceptance; strong community trust and understanding often translates into board approvals for rate increases.

Articulate Utility-Wide Efficiencies

Another primary research finding is the need for each utility to share, with its board and community, in a highly transparent manner, that it is being efficient with the communities' resources and considers community values during their rate setting process. We found examples from several agencies of high-level transparency, including asking other city departments to provide a rating; an independent evaluation is the ultimate in transparency (see Chapter 5).

Focus on Customer Service

Utility managers and board members stressed the importance of focusing on customer service as a way to build trust and have a positive impact on the success of the rate adoption process. Simply put, if utilities are there for its customers whenever they need something, customers will be there for the utility when it needs a rate increase to support its operations.

Be Visible and Involved in the Community

Another way a utility can build trust with its governing board and its customers is to be active and visible in the community. Community involvement can include open houses, participation in community educational programs, and participation in local community events. If utilities have new supply sources, such as recycled purified water or desalination, inviting the public to tour the facilities is a great way to be visible to the community and build understanding.

Develop and Share Rate Setting Guiding Principles

Many agencies interviewed also use a set of guiding principles to articulate and communicate the set of values the utility will consider as part of their rate-setting process. Sharing these guiding principles informs the community that the utility understands their rate-related needs and has developed a rate-setting process that responds to those needs. Guiding principles are a way to meet one of the most important communication requirements: audience members need to know that a speaker cares before they care what the speaker says.

Guiding principles range based on the needs of each utility and community. Examples include: "create a fair, equitable, and easy-to-understand rate structure," "support a financially stable organization," and "promote conservation and water-use efficiencies." A set of guiding principles recognizes the distinction between the rate-setting expectations of the utility and the rate-setting expectations of external audiences (Figure 2.1) and focuses external communication on customer value-based expectations.

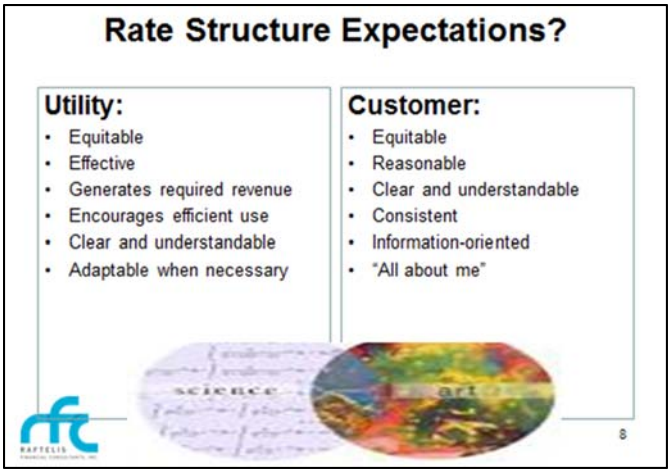


Figure 2.1 Rate structure expectations

Consider Examples

Denver Water identified the following principles that set out a "plain language" guideline that they share with the public as part of the rate restructuring process:

- Create a pricing structure that is fair, equitable, and easy to understand
- Create a pricing structure that is as low as good service will permit
- Make the price as low as possible and still provide good service, and use pricing that is based on the cost to provide service for the water used (cost of service)
- Support a financially strong and stable organization that can ensure its customers have reliable, high-quality water now and in the future
- Promote opportunities for customers to benefit in the wise use of water through continued conservation and efficiencies

EMWD judged the success of its rate outreach using the following guiding factors:

- Offer fairness and equity of the rate structure, allowing implementation of the rate structure with customer buy-in
- Be intuitive and interactive; give customers an opportunity to make adjustments based on personal information
- Increase awareness of water use, which results in conservation and revenue neutrality
- Create two-way dialogue with customers
- It is recommended that a successful rate structure be guided so as to:
  - Balance the needs of the utility and those of the customer
  - Allocate costs accurately and proportionally
  - Recover costs in a stable manner
  - Meet the water needs of the customer
    - Be "flexible," to adapt to changes in:
    - Costs
    - Economy
    - Weather
    - Legislation
    - Be an equitable "drought-response tool" for the utility
    - Be perceived as "fair" by the customers

Use these Tips for Building Trust and Understanding by Focusing on Visibility, Transparency, and Community Involvement

Many tips are provided here for building trust and understanding with the community, including:

- Communicate with audiences on a frequent and consistent basis. This will help audiences know the utility, trust it, and support well-designed and necessary rate increases.
- Be a part of the community as much as possible.
- Share both successes and failures with board members regarding utility-wide efficiencies.
- Set rate-setting expectations and share those expectations, in the form of guiding principles, with stakeholders.

The tools in the toolkit that are designed to support this action area include:

- Tool #12: The 10 Principles of Effective Communication in Rate Setting
- Tool #13: Message Delivery Pathways
- Tool #14 Example Messages that Resonate

DEVELOPING A LONG-TERM COMMUNICATION STRATEGY

Although the four action areas described above are crucial considerations for developing rate focused communications, they work better when implemented as part of a long-term communication strategy. The 10 steps of a long-term communication strategy include:

1. Articulate the long-term, over-arching communication goals.
2. Identify the sub-set of mid-term and short-term objectives necessary to meet the goal.
3. Identify target audience(s).
4. Identify what audiences already know, need to know, and questions of concern.
5. Prepare a banner headline statement.
6. Identify the top three need/ benefit facts that will resonate with target audiences.
7. Identify message platforms.
8. Prepare targeted messages to targeted audiences.
9. Deliver messages.
10. Evaluate, adjust, and follow up.

The message construction frame described here is elaborated upon with tips and worksheets in Tool #1: Rate Communication Process Roadmap. The outline below provides an introduction to steps involved in developing a long-term message strategy that builds ongoing trust and understanding of utility challenges; in other words, builds support for rate increases.

Development of a successful long-term communication strategy is highly dependent upon development of sound inputs – if the information you bring to the individual steps is strong, the resulting strategy will be strong. This means it is vital that you not just guess at inputs but that you actually develop and apply data that supports your choice of inputs. Sound data comes from a broad range of sources including, a wide range of internal utility departments, customer service surveys and focus groups.

Development of a long-term communication strategy is not a linear process; information from each step will inform both earlier and later steps requiring iteration on the part of the designer.

Step 1: Articulate the Long-Term, Over-Arching Communication Goals

Identifying the overall goal of engaging in communication is the first step in constructing either a short- or long-term communication plan. The overarching goal of communication is typically more than simply wanting to increase support for a single rate request. Many of the utilities interviewed identified that building long-term community trust in the utility and understanding of the challenges they are facing, is their overall communication goal and is one of the most important mechanisms for making the rate approval process easy.

Step 2: Identify the Sub-Set of Mid-Term and Short-Term Objectives Necessary to Meet the Goal

In most cases, the broad overarching communication goal can only be achieved by meeting a series of smaller objectives. The objective for one audience may actually be different than the objective for other audiences, and since specific communication objectives need to be audience based, it may be necessary to meet both audiences' objectives to achieve the overall goal.

Step 3: Identify Target Audience(s)

Identifying the target audience is important in order to develop audience based objectives. Target the communication to your specific audiences. Utility communicators need to develop awareness of not only their general audience, but also of specific audience segments within the

community, and the varying challenges they present. This enables dynamically shaping content and messages for target audiences. Utility audiences can include:

- Customers
- Other community members
- Local businesses and the media
- Internal audiences (e.g., employees, management)
- Governing Board members
- Elected officials

The "authorizing public," is a concept that refers to influential community members that are highly alert to utility activities, such as the media; leaders in the local and regional business, ethnic, environmental, technical, or medical communities; and various types of policy makers.

Step 4: Identify What Audiences Already Know, Need to Know, and Questions of Concern

It is vital when thinking about audiences to try and identify their question(s) of critical concern. Question of critical concern represents where in the conversation an audience group is right now. Few conversations start from scratch; if it is desired to keep a conversation moving in a manner that creates change, it is important to engage the audience where they are right now. Knowing where an audience segment is already in the conversation, what they already know and their attitudes, actions and beliefs about a subject provides the information needed to predict their response to messages. For example, knowing your audience is untrained and insecure in their financial training, allows you to create training materials that build confidence. Knowing they are politically appointed informs you the materials need to be presented at a high level.

Questions of concern are always value-based and represent the window of opportunity for engagement with a specific audience group. If you want to engage an audience in a rate conversation, you need to identify the value that drives their question of critical concern.

Step 5: Prepare a Banner Headline Statement

When preparing communications, either short-term or long, it is important to develop a headline that everyone in the utility uses consistently when talking about the subject. Communication research informs us that people need to hear things three times before it becomes a part of their understanding for the issue; so it is important to develop and use the same statement over and over again. When people hear a message repeated often enough, they begin to see the statement as fact and have less of a reactionary response. It is also a great deal easier for everyone in the utility to respond to a rate question if they have a well-designed message already developed for them in their hip pocket.

Communication research informs us that people can process no more than 27 words, that can be spoken in 9 seconds or less, and have three or fewer concepts (the 27/9/3/ principle) at one time (Covello et al. 2011)

Step 6: Identify the Top Three Need-Benefit Facts

It is important to identify the three or fewer facts to include in a banner headline. To do this, think about reasons as need/risk combinations. This is a group process and requires input from

a wide range of utility departments. Including a wide range of professionals as part of identifying the need/risk combinations for the banner headline ensures that a wide range of needs/risks are identified and that any individual biases about what is important do not overshadow the process.

Step 7: Identify Message Delivery Platforms

In this step, the most relevant message delivery platforms are identified. This will maximize the number of people who will actually engage in the communication by identifying:

- How your audiences already receive information?
- How many different ways can you deliver this message?

It is crucially important to identify the communication platforms that are already being accessed by the targeted audience members. If the targeted audience is internal staff then an editorial in the newspaper may not be the best platform; a memorandum in the utility newsletter is a better choice. Reach out (if you are conducting a survey, ask!) to discover the platform(s) most often used by the targeted audience. If the audience includes young adults, the platforms they are already using include a form of social media.

Step 8: Prepare Targeted Messages for Targeted Audiences

Now is the time to develop the actual message that will be developed for each audience/platform. For example, a web-based communication may have a different format than a PowerPoint presentation – but they should both use the same 27/9/3 based-headline and set of supporting messages.

Step 9: Deliver the Messages

When delivering the message, it is important to consider:

- When is the best time to deliver the message?
- How often does it need to be delivered?
- Should something accompany the message, perhaps an in-person communication?
- Does the message need follow-up?
- Who will deliver the message (e.g., put the developed information on the website)?

Step 10: Evaluate, Adjust, and Follow Up

This step is often neglected. But because the primary goal is likely to be build on-going trust and understanding the need to communicate is ongoing, evaluation is critical. Communication evaluations are also a great way to identify questions of concern, which often change over time.

COMPONENTS OF THE RATE COMMUNICATION TOOLKIT

To help navigate these steps, a *Rate Communication Toolkit* has been developed and accompanies this report. Utility rate communication needs are unique, and depending upon the situation, a utility may want to use all, some or only one of the tools presented in the toolkit. It is

recommended that you review all the tools to identify the specific tool that will build support for your specific rate communication situations. Components of the toolkit are described below.

To facilitate the identification and selection of the most appropriate tools for a particular situation, the tools are categorized using two different sorting criteria: First, the tools are sorted by audience/delivery: Internal, Governing Board, Community, and Communication Delivery. In addition, the tools are also sorted by the four primary action areas: Identify the Need for the Rate Request and the Consequences to the Utility if the Board Does Not Approve the Rate Change, Understand and Prepare for the Special Communication Needs of Board Members, Connect the Need for a Rate Request with Community Values, and Build Trust and Understanding by Being Visible, Transparent, and Involved in the Community.

Guide to the Rate Communication Toolkit

The guide below provides an overview of each of the individual tools in the toolkit and identifies the four priority action areas for effective rate change communication that have the potential to significantly improve rate case success. This 2-page guide (shown below in Figure 2.2) can be printed and posted as a reminder of these action areas.

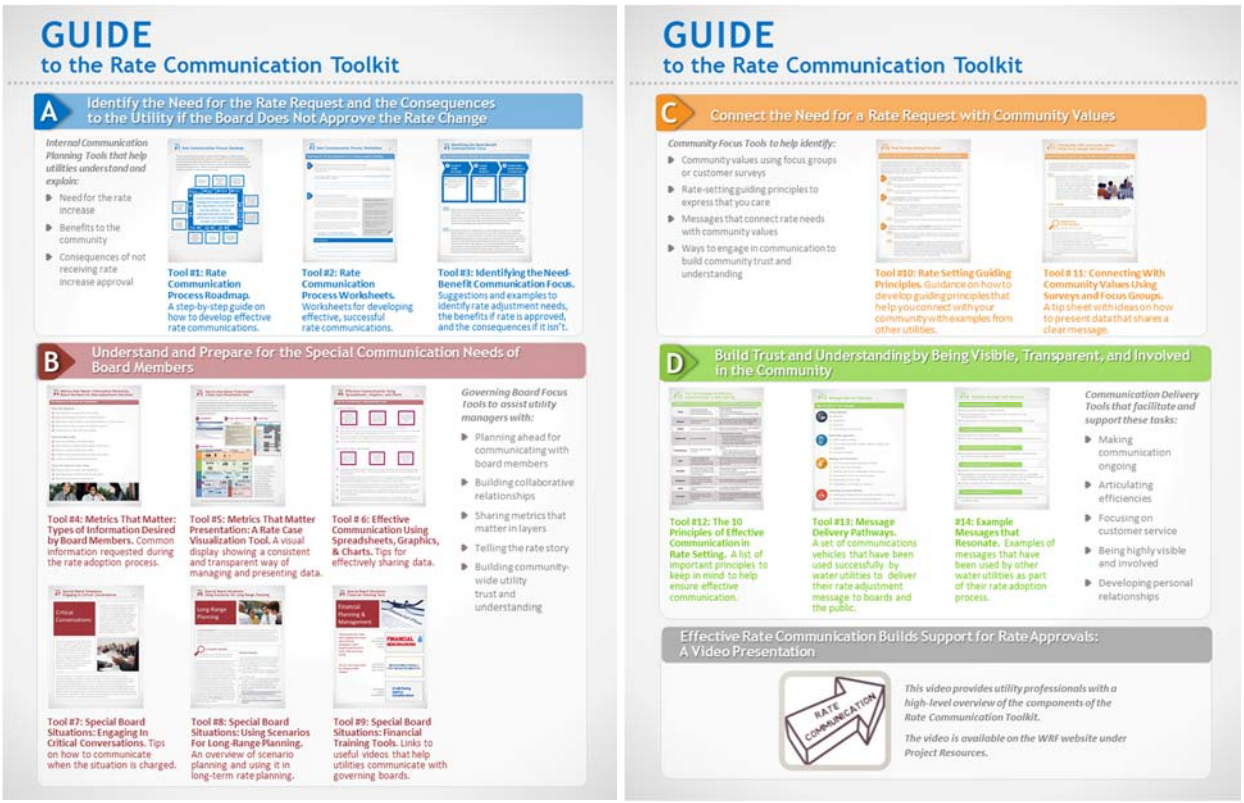


Figure 2.2 Guide to the toolkit

Effective Rate Communication Builds Support for Rate Approvals: A Video Presentation

This video provides an overview of the tools in the *Rate Communication Toolkit*. Consider sharing the video with other internal staff to build understanding of our research findings and how to use the Toolkit.

Tool #1: Rate Communication Process Roadmap

- Audience Category: Internal
- Action Area: A - Identify the Need for the Rate Change and the Consequences
- Description: This tool provides a step-by-step description of how to build a long-term communication strategy as well as individual messages that resonate. In the Communication Process Roadmap, the interrelated steps involved in constructing both short term messages and a long-term communication strategy are laid out with tips for how to incorporate rate-specific action areas into the communication strategy.

Tool #2: Rate Communication Process Worksheets

- Audience Category: Internal
- Action Area: A - Identify the Need for the Rate Change and the Consequences
- Description: This tool provides worksheets designed to help utilities effectively implement their long-term communication strategy and create and deliver individual messages that resonate with the target audience.

Tool #3: Identifying the Need-Benefit Communication Focus

- Audience Category: Internal
- Action Area: A - Identify the Need for the Rate Change and the Consequences
- Description: This tool is a tip sheet with a series of suggestions and examples for how to identify rate needs, rather than amounts, and the benefit to the utility if the rate is approved or consequence if it is not. The easiest way to identify the need for a rate increase and the associated benefit or consequence to the utility is to build the request into the rate development process.

Tool #4: Metrics That Matter: Types of Information Desired by Board Members

- Audience Category: Governing Board
- Action Area: B - Prepare for the Special Communication Needs of Board Members
- Description: This tool is a list of commonly requested information by board members during the rate adoption process. The items listed in this tool are organized around communicating about the specific rate adjustment, providing important information about the water utility itself, and discussing past trends and advocating for future needs.

Tool #5: Metrics That Matter Presentation: A Rate Case Visualization Tool

- Audience Category: Governing Board
- Action Area: B - Prepare for the Special Communication Needs of Board Member

- Description: This interactive visualization tool provides a framework for communicating the salient metrics in a transparent, consistent and explicable way. Communication research indicates that personal interaction with data supports both understanding of complex issues and user confidence in the data and how it is used in decision-making (Covello et al. 2011). In addition to providing an easy-to-understand and visually-pleasing snapshot of a utility's financial and operational performance, which can be used in communicating with officials, governing boards, and other key decision-makers, the tool also provides users with an opportunity to examine the data behind a proposed rate change. Creating and sharing rate-request information through an interactive dashboard capitalizes on the fact that many people are visual or kinetic, hands-on learners. Dashboards also provide a mechanism for condensing large amounts of data and information into easily digestible communication aids. One of the key findings of the research is the need to have detailed information available as well as high-level snapshots. So make sure to have back-up detailed information readily available that supports the high level information presented in the visualization tool.

Tool #6: Effective Communication Using Spreadsheets, Graphics, and Charts

- Audience Category: Governing Board
- Action Area: B - Prepare for the Special Communication Needs of Board Member
- Description: This tool is a tip sheet providing tips and references for using excel spreadsheets, graphics, and charts for communicating with governing board members.

Tool #7: Special Board Situations: Guidance for Engaging in Critical Conversation

- Audience Category: Governing Board
- Action Area: B - Prepare for the Special Communication Needs of Board Members
- Description: This tool is a tip sheet providing guidance to utility managers when engaging in critical conversations with governing board members.

Tool #8: Special Board Situations: Guidance on Using Scenarios for Long-Range Planning

- Audience Category: Governing Board
- Action Area: B - Prepare for the Special Communication Needs of Board Members
- Description: This tool is a tip sheet providing guidance to utility managers on using a scenario based approach for communicating long-term planning information to governing board members.

Tool #9: Special Board Situations: Financial Training Tools

- Audience Category: Governing Board
- Action Area: B - Prepare for the Special Communication Needs of Board Members
- Description: This tool provides links to useful videos that help utilities communicate effectively with governing boards.

Tool #10: Rate Setting Guiding Principles

- Audience Category: Community
- Action Area: C - Connect the Need with Community Values
- Description: This tool provides guidance on how to develop guiding principles with examples from other utilities.

Tool #11: Connecting with Community Values Using Surveys and Focus Groups

- Audience Category: Community
- Action Area: C - Connect the Need with Community Values
- Description: Focus groups and surveys are two tools that can help decision makers uncover community values and identify opportunities for engagement and behavior change. This tool provides tips for leading focus groups and designing community surveys, and provides examples of questions that can reveal community members' values, with links to resources for more detailed information.

Tool #12: The 10 Principles of Effective Communication in Rate Setting

- Audience Category: Communication Delivery
- Action Area: D - Build Trust and Understanding in the Utility
- Description: This tool contains a list of important principles to keep in mind to help ensure effective communication.

Tool #13: Message Delivery Pathways

- Audience Category: Communication Delivery
- Action Area: D - Build Trust and Understanding in the Utility
- Description: This tool provides a summary of the common ways to deliver rate communication messages to the target audience.

Tool #14: Example Messages That Resonate

- Audience Category: Communication Delivery
- Action Area: D - Build Trust and Understanding in the Utility
- Description: This tool provides examples of messages that have been used by other utilities as part of their rate adoption process.

CHAPTER 3
METHODOLOGY

OVERVIEW

This research focused on rate communications to two primary stakeholder groups – utility managers and governing board members. The primary project activities included completing a detailed literature review, supplementing the literature with data collected from written surveys, workshops, focus groups, and interviews. In total, more than 1,400 utility organizations from across the country contributed to this research project by responding to the survey, participating in the workshops, focus groups, and interviews. The data collected were used to determine conclusions regarding effective rate communications and develop the materials in the *Rate Communications Toolkit* (Chapter 2).

LITERATURE REVIEW

The research began with a review of pertinent literature to ensure the project was based on current research related to water utility communications concerning the rate approval process and to avoid duplicating prior research efforts. Focal points of the literature review included financial challenges facing water utilities, the rate setting environment, components of a successful communication strategy, and messages for rate setting.

The literature review also included a brief evaluation of literature pertaining to rate communications associated with other utility sectors whose utility rates are subject to review and approval from governing bodies, such as the electric and natural gas sectors. This was done to identify key drivers to successful rate cases and other best practices that would be applicable to water utilities. In addition, in an effort to gain a global perspective, the literature review examined a sample of international approaches to water utility rate case development and communication to identify global best practices for consideration by United States- (U.S.-) based water utilities. Chapter 4 discusses the literature review and results in more detail.

PREPARATION OF SURVEY TO DOCUMENT UTILITY RATE CASE EXPERIENCE AND NEEDS

A written survey was prepared and sent to utility managers and governing board members. The survey targeted chief administrative officers (e.g., utility managers) and chief elected officials (e.g., governing board members) at local governments from approximately 5,750 communities (4,439 cities and 1,311 counties), with populations ranging from under 2,500 to over 500,000 and aimed to identify the critical elements of successful rate case communications. The survey was distributed by the International City-County Managers Association (ICMA). The survey was designed to provide insight on a host of specific question including: *How do utilities across the country determine if new rates are needed? Who leads the effort to develop the case for new rates? Who participates in the development and presentation of a rate request? What information is presented to governing boards as part of the process and how effective is that information in informing decision-making? What role does the board and public play in the process?* Copies of the survey instruments that were used are included in Appendix A.

FACILITATION OF WORKSHOPS, FOCUS GROUPS, AND INTERVIEWS

Group and one-on-one interviews with governing board members and utility managers were held with 10 water utilities of various size and governance structure from across the country, as shown in Figure 3.1. The interviews covered a broad range of topics including the success of current rate case approaches, general perceptions of the current rate approval process, and opinions concerning the appropriate content, level of detail, presentation style, and other factors that could influence the success of a utility rate case.

Figure 3.1 Utilities participating in utility manager and governing board interviews

Workshops and focus group webinars were also held by the research team with both utility managers and governing board members to gather additional information regarding successful rate case communications to supplement the results from the written survey. The first workshop was held at the Utility Management Conference on February 25, 2014 in Savannah, GA. The objective of this workshop was to discuss obstacles, goals, and strategies in utility pricing communications. The second workshop was a "Rate Restructure Communication" workshop and was held in July 2014 in Denver, CO, hosted by Denver Water. The objective of the workshop was to share lessons learned from utilities around the country concerning communication strategies that build support for rate changes. Organizations participating in this workshop included:

- Albuquerque Bernalillo County Water Authority, NM
- Austin Water, TX
- Denver Water, CO
- Eastern Municipal Water District, CA

- Environmental Defense Fund (EDF)
- San Francisco Public Utilities Commission, CA

A webinar was also held on February 10, 2015 with a Utility Advisory Group, which consists of representatives from the following agencies:

- EPCOR Water Services Inc.
- National Association of Water Companies, National Rural Water Association
- New York Rural Water Association
- Environmental Finance Center Network

Other utilities from around the country participated in the webinar, including Metropolitan Water District of Southern California, Philadelphia Water Department, Prince William County Service Authority, Sanitation District No. 1 of Northern Kentucky, and the San Antonio Water System. The purpose of this webinar was to facilitate a roundtable discussion with a diverse group of utility representatives to solicit feedback from around the country regarding lessons learned from rate communication efforts, identify messages that resonate, and tools that would help with the rate communications process.

A webinar was also held with select governing board members on February 11, 2015 from the City of Delaware, Ohio. The purpose of this webinar was to solicit feedback regarding the preliminary research findings and components of the *Rate Communication Toolkit*.

ESTABLISHMENT OF A RATE COMMUNICATION FRAMEWORK

Based on the research described above, a rate communication framework was developed that identified four key action areas. The framework provides utilities with an understanding of the individual communication elements that are rate-specific, (key action areas) as well as a process for developing and implementing a long-term Rate Communications Strategy that increases understanding of utility rate adjustment needs and builds long-term governing board and community trust, identifies each step in the communication process, and provides guidance to utilities on audience needs, and suggested types of communication that will be most successful.

IDENTIFICATION OF INDICATORS OF RATE CASE VIABILITY

A series of metrics and key characteristics were identified that can be used as a measure of rate case viability, encompassing several aspects of utility management, including financial, managerial, and communications issues. The metrics were identified by analyzing the survey data with regression analysis to identify the factors most critical to a successful rate case and factors that tend to inhibit successful rate adoption. These factors were then validated against the qualitative data obtained through the interviews, workshops, and focused group webinar discussions with utility managers and governing board members.

MESSAGE DEVELOPMENT

This portion of the research brings together the lessons learned about the drivers and messages that resonate and build support for utility rate case communications from the literature review, responses from completed surveys, interviews, workshops, and focus group discussions.

Specific words, images, messages, and frameworks that support rate communications were identified and tested with the utility and governing board audiences, Utility Advisory Group, and the Governmental Advisory Group.

TOOL DEVELOPMENT

Several ready-to-use tools were developed to support successful rate case communications based on the results of the research. These tools include:

- Summary of rate communication action areas
- Primary process steps in preparing and delivering rate communications
- Example communication message map
- Examples of different ways to communicate with governing board members and customers
- Summary components of a successful communications strategy
- The 10 principles of effective communication in rate setting
- Examples of messages that resonate
- Types of information that governing board members desire when making a rate adjustment decision
- Communication using excel spreadsheets, graphics, and charts
- Special board situations: guidance on engaging in critical conversations
- Interactive scorecard for conveying key information to governing board members
- Video that introduces the *Rate Communication Toolkit* and how to use it

CHAPTER 4
LITERATURE REVIEW FINDINGS

LITERATURE REVIEW: RATE-SETTING COMMUNICATION

This chapter summarizes the findings of a literature review focused on the issues that water utilities face during the rate-setting process and strategies for overcoming these obstacles using varying methods of communication. Sources of information gathered for this chapter included academic research reports, industry research reports, water professionals' observations and perspectives, and real-world examples of utility communications applicable to generating stakeholder acceptance during the rate-setting process.

This review begins by providing a short overview of the rate-setting challenges that water utilities face and then explores the current knowledge of related communication strategies and messages. A brief communication primer focused on rate setting is also provided along with examples of rate-setting messages used both successfully and unsuccessfully by water utilities.

THE WATER UTILITY FINANCE CHALLENGE

"The rate-setting process is inherently complex and interdisciplinary, with its position at the nexus of law, economics, political science, accounting, finance, and engineering (Cruz et al. 2011)."

Our nation's water utilities face a significant financial challenge due to: increases in regulatory requirements, increases in material and labor costs, a nationwide need to repair and replace water systems put in place over 50 years ago, a decrease in water sales due to conservation, and economic cycles that limit the ability and willingness to raise rates during economic downturns. Table 4.1 outlines these financial challenges, which were identified from the literature review discussed in this chapter.

Water industry professionals have identified constraints on financial resources as a high-priority future concern (Westerhoff et al. 2005, Means et al. 2008). Estimates of resources needed for capital investment in infrastructure upgrades and renewal alone range from the U.S. Environmental Protection Agency (EPA) estimate of $150 to 270 billion over 20 years to the Water Infrastructure Network and AWWA estimates of more than $1 trillion over a 25-year period (WIN 2000, SCAP 2008, AWWA 2012). In fact, it is estimated that "currently over 80% of public water systems are considered economically nonviable" (Kiefer 2011). A representative for the Alliance for Water Efficiency characterizes water utilities' current financial status as a boom-and-bust cycle with a revenue structure unable to deal with wide swings; as such, properly designed rate structures are needed to stabilize systems (Dickinson 2012).

Table 4.1
Factors affecting utility finances

Factor	Source
New, expanding, and stricter regulations.	SCAP 2008 Haskins et al. 2011 Pacific Institute 2013
Increasing public expectations and regulatory focus on protecting the environment, including local watersheds; avoiding negative environmental impacts; reducing carbon footprint; and promoting environmentally sustainable operations.	SCAP 2008
Increasing costs, including labor, construction materials, and scarce resources (e.g., energy, chemicals).	SCAP 2008 Haskins et al. 2011
More competition for funds within both the public and private sectors with less federal funding and fewer grants available for utility projects.	SCAP 2008 MASC 2011
More competition with other water sources. Consumers often receive misleading messages from bottled water and in-home water treatment companies. Concerns over water safety and aesthetics have pushed bottled water sales in the United States to nearly $10 billion annually.	Westerhoff et al. 2005 SCAP 2008
Evolving utility roles, especially for wastewater utilities involved in the beneficial reuse of water, biosolids, and other resources.	SCAP 2008
Population growth.	SCAP 2008 Beecher and Chestnutt 2012
Aging infrastructure. Even as expensive infrastructure upgrade projects strain utility financial planning, aging assets can also cost more to operate, require more frequent maintenance, and experience an overall decline in performance that can include both minor and major breakdowns.	AWWA 2004, 2006a, 2012 SCAP 2008 Means et al. 2008 Haskins et al. 2011
Mobilizing action to prevent catastrophe is, in many ways, more difficult than mobilizing action in response to catastrophe.	AWWA 2006a
Contaminants of emerging concern.	SCAP 2008
Decreased water use resulting in revenue decline with serious impacts on a utility's bottom line. Decreased usage results from several concurrent factors, including: • Economic downturn leading to industrial layoffs and foreclosures. Declining sales are particularly problematic for "declining cities" experiencing population loss and weak economic activity • Variable weather and reduced peak demand • Conservation measures, such as new plumbing standards and high-efficiency fixtures and appliances	AWWA 2004 Haskins et al. 2011 Beecher and Chestnutt 2012 Dickinson 2012 Johnson Foundation at Wingspread 2012 WRF Publication 4366

Even with the pressing financial needs outlined above, many water utilities have difficulty raising rates. Consumer perception of the value of water, a municipality's need for money for other priorities (e.g., police and fire protection, education), affordability issues, and a variety of other factors make it difficult for water utilities to increase water rates. A sampling of the range of issues facing water utilities as they attempt to raise rates is presented in Table 4.2, including factors such as negative perceptions, politics, regulatory lags, and complexity of the rate setting process.

Table 4.2
Issues influencing water utilities' rate-setting decisions

Factor	Source(s)
Negative branding, with consumer perceptions of water service providers as: • Inefficient government bureaucracies • Unresponsive monopolies • Wastewater utilities as "polluters" • Entities that punish successful conservation efforts with higher water bills	SCAP 2008 Johnson Foundation at Wingspread 2012
Effect of politics on rate-setting processes.	SCAP 2008 Kiefer 2011 Johnson Foundation at Wingspread 2012
A history of industry invisibility as the "silent service," leading to lack of awareness of the value provided to communities by water utilities.	AWWA 2004 SCAP 2008
Opposition from consumers who pay below cost for water, particularly urban middle-class customers who benefit from subsidies, as well as the agricultural community.	Chaman et al. 2012
Rate setting is a multi-objective process that involves many stakeholder groups. Little guidance exists on how to deal with issues such as the: • Perception that rate acceptability is a moving target that varies over time and among perspectives • Complexity of using water pricing to serve competing goals • Need to allocate costs of service fairly among customers • Need to balance multiple objectives as part of long-term management of scarce water supplies	Kiefer 2011 Beecher and Chestnutt, 2012 Johnson Foundation at Wingspread 2012
Regulatory lag can affect rate-setting effectiveness; it is not uncommon for 2 years to pass from completion of a cost design to actual revenue collection. In some instances, more frequent or regularly scheduled rate adjustments could help with timeliness and avoid rate shock for water customers.	Kundert and Raysby 2007 Beecher 2011 Johnson Foundation at Wingspread 2012
Water bills often contain additional fees beyond water itself, and customers pay more attention to the total amount rather than line items. Public education can prove challenging.	Johnson Foundation at Wingspread 2012
Customers have no idea of real costs of water provision.	AWWA 2004 Beecher and Chestnutt 2012 Johnson Foundation at Wingspread 2012
Credit agencies examine cost recovery through rates to evaluate utilities' credit-worthiness. Good ratings on utility bonds are critical.	AWWA 2004

THE RATE-SETTING ENVIRONMENT

Little regulatory oversight of water utility pricing exists at the national level. However, some states do provide rate regulatory oversight, at least to privately held water companies. Table 4.3 lists the states with and without regulated water companies. Without a consistent nationwide rate-setting framework, water utilities operating in multiple states confront a patchwork of state- and local-level requirements that run the gamut from no economic regulation to strict regulatory control over rates of return, revenue sources, and other financial elements.

Table 4.3
Water company regulation in the United States

States with regulated water companies			States without regulated water companies
Alabama	Kentucky	Oklahoma	District of Columbia
Alaska	Louisiana	Oregon	Georgia
Arizona	Maine	Pennsylvania	Michigan
Arkansas	Maryland	Rhode Island	Minnesota
California	Massachusetts	South Carolina	Nebraska
Colorado	Mississippi	Tennessee	North Dakota
Connecticut	Missouri	Texas	South Dakota
Delaware	Montana	Utah	
Florida	Nevada	Vermont	
Hawaii	New Hampshire New Jersey	Virginia	
Idaho	New Mexico	Washington	
Illinois	New York	West Virginia	
Indiana	North Carolina	Wisconsin[a]	
Iowa	Ohio	Wyoming	
Kansas			

[a] Wisconsin allows private water companies, but the Public Utilities Holding Act of Wisconsin creates a high legal/regulatory barrier for them to enter the market.

Source: Wharton et al. 2013.

For many municipally-owned water utilities, the decision to raise rates requires approval from a utility's governing board. Governance models and organizational structures vary significantly. Each governance structure presents its own rate-setting challenges. According to Cruz et al. (2011), "There is little consensus among practitioners and academics on what specific model is optimal for particular situations (and what criteria might be used to evaluate those models)." Many of these structures, which were originally designed to produce rational, equitable rates, do not have the flexibility that the changing utility financial landscape now requires. So, although "Economists have provided first-best, second-best, and probably even third-best solutions to the utility pricing problem…still to this day, pricing theory remains generally incongruent with actual rate setting practices" (Kiefer 2011). In sum, many utility governance structures may no longer provide the quick response and flexibility required to meet today's rapidly changing financial needs. The primary types of governance models for water utilities in the United States include the following (based on Baer et al. 2001):

- Privately owned (e.g., investor-owned American Water, and small subdivision builder-owned or homeowner association-owned)
- Municipal utility reporting directly to city council or county commission (e.g., Austin, Texas; Colorado Springs, Colorado)
- Independent city agency (e.g., Jacksonville, Florida; Knoxville, Tennessee)
- City-owned utility district (e.g., Sacramento Municipal Utility District)
- Joint Powers Agency (e.g., Southern California)

A governance structure where the municipal water utility reports directly to the city council or county board of commissioners seems to work well in smaller cities and counties with utilities of moderate size; however, issues ranging from the depth of involvement of the city council in day-to-day utility management to lack of awareness of utility financial needs are important considerations for this type of governance structure (Baer et al. 2001). A utility governance structure where the water utility reports directly to the city council often includes a council-appointed citizen advisory commission. Water utilities that are independent city agencies typically have Board members that are appointed by the mayor and confirmed by the city council for fixed terms. City- or county-owned water utility districts are often governed by an elected Board with each member representing a specific ward; the Board member must typically reside in the ward, but every voter in the district may vote for all the directors to be elected.

In sum, many water utilities across the nation have increasing costs and flat or decreasing revenues; these utilities need to raise rates. However, the current water utility rate-setting environment may not be supportive and in fact often poses significant challenges to raising rates.

COMMUNICATION HELPS OVERCOME CHALLENGES

A closer examination of the challenges that utilities face as part of their rate-setting process (Tables 4.1 and 4.2) reveals that many can clearly be identified as communication issues. For example, helping customers understand the value of water and the costs associated with ensuring reliable and adequate water delivery, making a strong connection between a new regulatory requirement and a rate change, and providing information that supports a municipality's trade-offs between water needs and other community needs such as police, fire protection, and education, are examples of how improved communication can garner support for water rate increases.

Furthermore, if members of a utility's service area have a negative perception of the utility because they view it as an unresponsive monopoly or an inefficient government bureaucracy, then rate-setting processes can become an uphill battle. However, strategic efforts to build a positive brand image for the utility can counteract this problem through increasing trust in the utility, its employees, and its management. Many sources have identified trust as vitally important in securing investment (e.g., necessary rate increases) from communities (SCAP 2008, Cruz et al. 2011, Johnson Foundation at Wingspread 2012).

Communication can also help educate customers about evolving missions of many utilities in the arena of community resource management. "Many wastewater agencies are already investing hundreds of millions if not billions of dollars in treatment and processes designed to protect the environment. This is a fact that cannot be disputed and should be communicated to the community" (SCAP 2008). This significant need for infrastructure reinvestment, and rate increases to support it, highlights the need for effect rate communications.

Another area that could benefit from improved communication is accustoming communities to the permanent transition toward continual reinvestment in water system infrastructure. Given the long-lived nature of water system infrastructure (e.g., pipes), rehabilitation and replacement has not arisen as a significant concern until recently. The current generation of water utility customers will be the first, but not the last, that will need to focus intently on reinvestment with sustainable planning to accommodate needed maintenance at an affordable pace. "The threat arises from the risk that reinvestment needs for these largely invisible assets will be overlooked until it is too late" (AWWA 2006a). A proactive, long-term communication strategy can certainly help with educating communities on the need for continual reinvestment in infrastructure.

A RATE COMMUNICATION PRIMER

The concept of communication as employed throughout this report may be distinct from the way many utility professionals have viewed it in the past. The traditional view is that communication is a one-way process of information dissemination that is peripheral to the organizational mission; the updated view is that two-way communication between providers and customers is a critical component that promotes development, accountability, and transparency, while reducing risk (Chaman et al. 2012). Under this view, communication is an integral part of the process rather than a means of sharing findings. Gathering information about what audiences need throughout the process, and then providing it in a form that is easily accessible and digestible, is often the difference between the approval or the denial of a rate increase. This section provides an overview of how to use two-way rate communication strategy to create change and help facilitate rate approvals.

Using communication as a tool to affect change (e.g., in how governing board members and customers respond to rate-change requests) requires development of a long-term communication strategy, as opposed to development of a single communication. A Rate Communication Strategy identifies information about audiences and their information needs, their emotional connections to the issue, and the communication platforms (e.g., magazine, news station) they already use. A good Rate Communication Strategy also identifies how the individual communication products will be evaluated. Although this may sound overwhelming, a predetermined Rate Communications Strategy that encompasses all matters related to water service, water quality, and cost can ensure important decisions are made and implemented quickly and easily. Strategic and well-planned communications can also help utility staff efficiently provide communication support both to their own management and to elected officials, underscoring and gaining acceptance for important decisions (Pacific Institute 2013).

THE COMPONENTS OF A SUCCESSFUL RATE COMMUNICATION STRATEGY

Whether a communication was successful can be determined by the audience response (i.e., did the communication create the desired change in the targeted audience?). Below are listed the six components of a communication and education plan that have been identified by a wide range of researchers as important elements of a communication strategy. As the complexity and adversity surrounding a rate request increase, so does the need for each component of the communication plan to be fully developed. Each of the six components is explored in further detail below. The standard components of a communication and education plan are:

1. Identify the goals and objectives of each communication
2. Review guiding principles
3. Know the audience
4. Identify project impacts
5. Develop messages - create communication products, and consistently deliver
6. Evaluate and refine the message

Component 1: Identify the Goal and Objectives of Each Communication

The first step in the development of a successful communication piece is to explicitly identify the change you want to create; that is, what do you want your audience to do as a result of this message? Is the goal simply "engagement," or do you want the message to build support for a specific project or for the overall utility brand? For many water utilities the primary objective of a communication regarding rate increases is to gain governing board approval. However, utilities shouldn't stop there as they explore their goals. Water utilities should endeavor to identify smaller objectives in concert with the larger overall objective. For example, the objective of this communication is to help the Board understand how changes in regulatory requirements affect capital and/or operating costs and, hence, revenue needs and rates.

Component 2: Review Guiding Principles

Guiding principles are the high-level, often unarticulated set of working assumptions that people use to help make decisions, understand the working environment, and identify relative priorities (Carmody and West 2006). Guiding principles for most water utility communications include delivering what management wants, understanding the utility culture as well as the community culture, and completing research on how to build and implement robust rate communication strategies.

Two special guiding principles need to be considered as part of rate-setting communications. The first guiding principle falls out of the characterization of water resources management as existing at the boundaries of multiple worlds (White et al. 2010). Boundary organizations that straddle the intersection of science and policy, such as utilities, require stakeholders to perceive them as *credible*, *salient*, and *legitimate* to perform effectively. This terminology is defined as applicable to boundary organizations. White et al. (2010) found that boundary organizations need to pay special attention to ensuring their communications (1) are active, iterative, and inclusive; (2) translate scientific knowledge in a manner that enhances understanding by decision-makers; and (3) actively mediate conflicts. The definitions of important terminology related to stakeholder perceptions are (Cash et al. 2003):

- Credibility involves the scientific adequacy of the technical evidence and arguments
- Salience deals with the relevance of the assessment to the needs of decision-makers
- Legitimacy reflects the perceptions that the production of information and technology has been respectful of stakeholders' divergent values and beliefs, unbiased in its conduct, and fair in its treatment of views and interest.

The second guiding principle water utilities should remember as they develop rate communications is the need, according to the Johnson Foundation at Wingspread (2012), for utilities to fully understand the reliability-related requirements and concerns of their customers. Research conducted for the Johnson Foundation at Wingsread finds that utilities can significantly

increase customer willingness-to-pay when their rate communications directly address reliability. Along the same lines, Chaman et al. (2012) recommends creating an integral link among strategies and project objectives, long-term utility goals, and organizational commitments.

Table 4.4 displays the Pacific Institute's (2013) and Bishop's (2003) 10 principles of authentic communication in the rate-setting process.

Table 4.4
The 10 principles of authentic communication in rate-setting

Principle	Description	How it relates to rate-setting
Timely	Information is provided and communication begins before the action or decision that affects people.	Information should be released with enough time for public outreach and educational activities. For example, In terms of rate-setting, California's Proposition 218 requires a minimum 45-day notice of any changes to water rates.
Relevant	Information is pertinent to the people involved.	Impacts to different stakeholder groups should be anticipated and addressed in the outreach strategy. Materials should address local, regional, or customer-specific concerns, where possible.
Truthful	Information is factually accurate.	All outreach materials should be reviewed by multiple staff members to ensure accuracy and consistency in messaging.
Fundamental	The core issues are addressed.	Real constraints should be discussed. If the water supplier is facing a down-graded credit rating because of insufficient debt-coverage, this information should be clearly communicated to Boards and customers. If a water supplier is not collecting enough revenue to cover its fixed costs, this should also be clearly communicated.
Comprehensive	The whole story on the relevant issues is covered.	Explain the need for changes in rate structures. For instance, if a rate increase results from new capital improvement projects, materials should be released addressing the state of local infrastructure and the importance of increased spending.
Clear	Unambiguous language is used, language is appropriate for the audience, technical terms are defined, and information is organized logically.	Information should be presented in a clear and logical format using visual aids, where appropriate. Technical jargon should be avoided or clearly explained. Public presentations and supporting material should be reviewed with the audience in mind.
Accessible	Information and sources are provided and/or are easy to locate and interact with; public meetings are held in convenient locations and are well-publicized.	Ensure that all relevant information is publicly available in a variety of formats, if possible. Also ensure that information is available in multiple languages, if necessary, depending on a community's demographics.
Responsive	Communication is two-way, others' views are listened to and seriously considered, and there is openness to accommodation.	Significant staff time should be devoted to customer communications. A clear process to respond to customer concerns should exist.
Caring	Communication is polite, courteous, and respectful.	All staff should have training in customer relations and should be able to clearly explain the water supplier's rate structure.
Consistent	Words and actions match, and there is follow-through on agreement and commitments.	Ensure that all rules and regulations are followed. If you have a code of conduct or finance policy for your organization, periodically review it to ensure that you are meeting both your own as well as customers' expectations.

Source: Pacific Institute 2013 (Adapted from Bishop 2003).

Component 3: Know the Audience

Water utility managers need to develop an awareness of not only their general audience (e.g., community members), but also of specific audience segments (e.g., board members) and the varying challenges they present. Utility audiences can include customers, other community members such as special interest groups, local businesses, media, internal audiences (e.g., employees, management) and, perhaps most important in terms of rate-setting communication, elected officials and other policy decision-makers.

Water utilities may also find it useful to consider the concept of the "authorizing public." The authorizing public is differentiated from the general public by their influential relationships within a community and their alertness to utility activities. This group is composed of board members, city council members, or other types of policymakers; the media; active, well-networked community members; business leaders; ethnic and environmental group leaders; local regulators; trusted technical or medical community leaders; and other influential groups. "It is useful to refer to them as the 'authorizing public' because it articulates the purpose of developing these relationships, which is to ensure that appropriate rates and investment are 'authorized'" (SCAP 2008).

Whichever way that water utilities define their audiences, utilities should consider the specific circumstances and needs of each audience. For example, water utilities should bear in mind that city council members and other city officials may have overwhelming schedules, and as such, communications to this audience benefit from brevity, clarity, and a strong reinforcement of central messages about the value and need for investment (SCAP 2008). This allows rate communications to be tailored messages and their delivery specifically to each audience.

The target audience dynamically shapes communication. Utilities need to develop message points as they communicate the value of water to their audiences (Tennyson 2012). Message points need to articulate relevant information clearly. Utilities can also design messages to acknowledge identified audience concerns and respond to them directly. Note that responding does not imply agreement, but rather offers an opportunity to build collaborative relationships by demonstrating an understanding of an opposing point of view and providing feedback that addresses that position (SCAP 2008).

The best way to know what an audience is thinking is to ask them. "A utility that assumes it 'knows what's best' for its customers will, in all likelihood, make faulty assumptions about outreach to customers regarding issues affecting them regardless of the topic – water-rate increases, capital improvement projects, bond issues" (AWWA 2004). Communication is based on what is seen as the "questions of critical concern," whereas effective communication requires addressing the audiences' "questions of critical concern." Perceptions about climate change are a good example of differences in questions of critical concern. Scientists ask, "Is the science about climate change definitive?" while non-scientists are more likely to ask, "What is the difference between weird weather, long-term climate variability, and real climate change?"

Once the audience has been identified, it is crucial to get a sense of their attitudes and perceptions as related to the specific communication objective. If the target audience is a group of high-level financial advisors, there will be no need to provide background information to support the rate request. However, if the audience is likely to include people with little familiarity concerning financial terms and processes, then background material is essential.

If a communication is to be successful, the communicator must try to understand what the specific audience cares about and values concerning rate increases and related matters. People today are bombarded with communications and must select which ones to listen to. The selection

process is based on identifying what is important to us. Aspects to try to understand about an identified audience(s) include the issues and language that resonate with individuals and groups, which values are important, what aspirations they have for given roles (e.g., as parents, members of a community), what preexisting knowledge about the subject, mental models, and misconceptions exist.

In order to "know the audience," it is important to listen and identify their values, trusted sources, and especially what they have to say about the subject at hand. Research shows that in most communication situations, the listener is likely to be mentally developing a response rather than focusing on what the speaker is really trying to say. Staying focused on identifying the speaker's concerns will provide guidance on action areas for future communications.

Knowledge of the audience through early research can also help utilities identify trusted messengers. Providing stakeholders with information that resonates requires delivery through channels they trust (Chaman et al. 2012). An effective message can be thwarted by an ineffective channel. For example, one communication challenge the water industry faces is the tendency of consumers to perceive water strictly as a highly localized issue, which often reduces the effectiveness of national campaigns and prevents utilities from fully capitalizing on the potential benefits of national messaging (Johnson Foundation at Wingspread 2012). AWWA (2004) recommends localizing information as much as possible, personalizing communication to even a neighborhood level.

It is important to remember that knowing the audience and responding to that information by tailoring the utility's messaging are the two most important aspects of effective communication.

Component 4: Identify Project Impacts

Component 1 defines the *objective* of the communication and component 4 defines the *reason* for the communication, which is the meat of the communication. What is the project/idea/change that needs to be communicated? One of the guiding principles is to connect the request for a rate increase with a specific need – and if possible with the reason why this need is important for water delivery reliability. As part of articulating the reason for a rate increase, it is vital to include a cross-disciplinary group with both internal staff and any relevant external project contributors – no one person is likely to have access to all the reasons/facts driving the need for a rate increase.

Component 5: Develop Messages, Create Communications Products, and Consistently Deliver

Finally, it is time to develop the message, create products, and deliver the messages consistently to the target audience. For large and/or complex rate increase requests, message development is likely to require the development of a message map. Dr. Vincent Covello created the concept of message maps in the early 1990s as a specialized tool for communicating effectively in high-stress, high-concern, or emotionally charged situations (EPA 2007a).

Message maps are key to keeping communications clear and easy. Message maps are sets of organized statements or messages that address likely questions and concerns. A message map provides multiple benefits. It provides a handy tool and allows multiple spokespersons to repeat the same message to ensure the rapid dissemination of consistent and core messages across multiple communication outlets. Message maps provide a unifying framework for disseminating information on various issues and minimizing the chance of the speaker saying something

inappropriate or not saying something that should have been said. A printed message map allows spokespersons to check off the talking points as they are covered; this helps to prevent omissions of key facts or misstatements that could provoke people (EPA 2007a). An example of a message map is provided in Table 4.5.

Table 4.5
Example message map

Project: New Desalination (Desal) Plant

Audience: Governing Board members

Objective: Obtain go ahead for in-depth analysis of the desal option

Key Message 1	**Key Message 2**	**Key Message 3**
Water supplies are projected to be inadequate to meet demands by 2030.	Unreliable water supplies have significant impacts on the utility, the local economy, and the community.	Desalination (desal) has been identified as the potential best option for increasing supplies.
Supporting Info 1-1	**Supporting Info 2-1**	**Supporting Info 3-1**
Model outputs indicate water supplies will be 24% below demands by 2030.	An inadequate future water supply portfolio will prevent the utility from achieving its primary mission – reliably providing safe drinking water to meet demands.	Other options reviewed included conservation, water reuse, and importing water.
Supporting Info 1-2	**Supporting Info 2-2**	**Supporting Info 3-2**
Even with increased conservation savings of 25% over the next 20 years, our current water supply portfolio is still likely to be inadequate to meet the demand forecasts for 2030.	Reliable water supplies are paramount for economic stability and growth. The impacts of an unreliable water supply on our primary sector – the tourism industry – are projected to be significant.	A financial analysis of our utility's future supply options identifies desal as the option with the lowest present value costs and financial bottom line.
Supporting Info 1-3	**Supporting Info 2-3**	**Supporting Info 3-3**
Increasing drought severity and magnitude due to climate change further reduces our ability to meet projected demands with the current supply portfolio.	Unreliable water supplies due to climate change threaten the operation of fire departments, hospitals, and schools.	Desal provides a climate-independent water supply. As climate change decreases the reliability of our current supply sources – groundwater and surface water – the need for a climate-independent source grows.

The EPA has produced a 40-minute video on message mapping, as well as a report that deals specifically with water utility message maps. The video explains how responders and other stakeholders can develop message maps now as part of their strategy for responding to terrorist threats and other disasters in the future (EPA 2012). The information in this document and video can also be applied to rate-setting communication development (EPA 2007b).

Several considerations for developing and delivering communications products include the following:

Timing

The timing of communication can also play a pivotal role in its overall effectiveness, equaling the message content and channel. Utility communication will benefit from efforts to make an impression when people are paying attention, a fundamental concept to effective branding (SCAP 2008). Important timing considerations include:

- Communicate all the time. “Support and trust is built on a history of everyday actions, not one great presentation” (Dale et al. 2012). Every interaction with stakeholders presents a communication opportunity, and commitment to converting those routine interactions into meaningful communication is key to effectively managing a utility’s image. Incorporating mechanisms for regular feedback can also help fine-tune communication strategies and messaging over time (AWWA 2004, SCAP 2008, Johnson Foundation at Wingspread 2012, Tennyson 2012).
- Target communication during the rate-setting process. A good general communication strategy can become especially critical when a utility is implementing rate changes, but the rate-setting process may require a separate strategy (Pacific Institute 2013). A rate-setting communication plan builds upon the existing strategy with cohesive new messages and tools, and it can be effective to describe components of the rate structure, use graphics to compare costs, and show examples of value the water service agency provides (Tennyson 2012). For rate-setting communication with utility Board members or other policymakers, it can be helpful to present information on multiple options for levels of investment, thereby increasing the knowledge of policymakers, making them feel more involved in decisions, and increasing their respect for utility staff (SCAP 2008).
- Prioritize messages. Prioritization can depend on support to organizational objectives, current levels of performance, citizen attitudes, and other criteria. “Being explicit about the priorities makes the organization more accountable to those affected by regulatory and managerial decisions” (Berg 2012).
- Proactively address negative audience perceptions. Utilities contend with negative perceptions, such as the views that government agencies are inefficient or wastewater utilities are polluters by default. Using communications to get in front of erroneous impressions is recommended to prevent them from interfering with a productive conversation around rate setting. Pre-prepared messages and materials that are available to readily present counterarguments can be beneficial (SCAP 2008, Ruetten 2013).
- Consider external schedules. To prevent another event (e.g., election, tax increase ballot) from interfering with an otherwise well-conceived rate-setting process, take other political or regulatory schedules into consideration and navigate around them. This will avoid the potential for message diffusion or public confusion (AWWA 2004).

Clarity

The research literature identified during this review repeatedly emphasized the significance of clarity in water utility communication efforts in general and in rate-setting communication in particular. Messages should be crafted in clear language that matches the audience’s expected level of complexity, enhances the audience’s understanding, and expresses impacts in the same way the audience thinks about them (e.g., express utility decisions to the public in terms of the effects decisions have on their lives). “Water professionals sometimes talk about the need to ‘dumb down’ communications so they will work for the general public. This is dangerous thinking because it assumes that the relevant and most important issues are technical or complicated” (SCAP 2008). Avoid jargon always, but especially when communicating on sensitive or controversial issues

(Berg 2012). It is best to present information to the public simply, and visually when possible; the audience should be able to understand messages and visual materials in a matter of seconds (AWWA 2004). Clarity should also remain a priority when considering the water rates as a communication tool. Utilities and their customers alike benefit from widely available, easily located, and easily interpreted rates and transparent water bills. The best rate explanations use plain language to effectively articulate the basis and rationale for the rate (Beecher 2011, Pacific Institute 2013).

Consistency

The research literature identified the importance of communicating consistently. One way to do this is to develop a consistent theme, but tailor the message to each audience's specific issues of concern.

Communication Platforms

The selection of platform for delivering messages to target audiences impacts both the messages' appropriateness and effectiveness. It is important to identify a platform that is already being used by the target audience. For example, younger audiences use the internet and social media as their primary communication platform; this is where you should communicate with them. Also, note that it is recommended that utilities employ multiple channels simultaneously to reach a larger number of stakeholders (AWWA 2004). The Pacific Institute (2013) cites a survey of water systems where more than 60% of respondents indicated that they use between three and five methods to communicate with their customers about rates. Common communication tools, methods, and channels identified in the literature review include:

- Materials. This refers to the newsletters, fact sheets, brochures, information displays, websites, kiosks, and other collateral materials that communicators traditionally produced to disseminate information (Tennyson 2012). Materials can also include efforts by utilities to develop a social media presence (Haskins et al. 2011, Pacific Institute 2013).
- Events. Events provide a venue to educate the community and conduct two-way communication with individuals and groups. Suggested events include community open houses, facility tours, speaking engagements arranged through a speaker's bureau program, advisory groups, stakeholder roundtables, visits to businesses, and social clubs. Utilities can use events to signal their commitment to core practice areas important to their community, such as holding an annual efficiency summit. Another means of communicating with policymakers is for utilities to offer orientation events for newly elected officials or Board members, which can range from a general introduction to utility issues to in-depth education in water system management and utility finance. See the Examples of Communication in Action section below for additional information on Board member orientations (Haskins et al. 2011, Tennyson 2012, Pacific Institute 2013, Ruetten 2013).
- Credible data. Data collected or repurposed by utilities can support and enhance communication materials. "In the absence of credible data on the public's willingness to support investment, policy makers will likely vote for rates that they think are

politically palatable" (SCAP 2008). Rather than making assumptions about what customers want or how they will react to utility decisions, Chaman et al. (2012) recommend conducting a communication-based assessment (CBA), incorporating conventional methodologies to gather information (e.g., economic analysis, ability to pay, social and environmental assessments), quantitative instruments (e.g., surveys, public opinion polls), and qualitative tools (e.g., focus groups, interviews). The same authors identify governmental and political risk analysis, stakeholder analysis, and social and participatory communication as relevant information enabled through CBA. Note that in the same way that high-quality data can promote successful communication, data that are inaccurate, inconsistent, or biased can prove disastrous. For example, in the early 1990s in Cape Coral, Florida, flawed data contributed to a series of faulty revenue forecasts that resulted in severe budget concerns; when citizens responded to the discrepancies with heated public debate, the city council denied a much-needed rate increase (Forrer et al. 2011).

- Dashboards and other model-based decision-support tools. Modern tools can effectively condense large amounts of data and information into easily digestible visual communication aids. Dashboards capitalize on the fact that most people are visual learners to convey critical information. Also, dashboards are simple to create with commonly available software such as Excel. See the Examples of Communication in Action section, below, for additional information (Rivenbark et al. 2009, White et al. 2010, Berahzer et al. 2011).
- Strategic leverage of publicity. Paid advertising contrasts with publicity formed through organic word-of-mouth, news reports, or "buzz." Managing publicity does not require the large budgets of advertising and is the most cost-effective method for a utility to build a brand (SCAP 2008). Utilities can use publicity to build awareness of their infrastructure and actions (Dale et al. 2012).
- Online tools. Calculators and various other online tools provide a low-effort method to approach interactive communication with customers and other stakeholders (Tennyson 2012). "Water service providers could take greater advantage of the array of modern technologies available for improved customer communication, including blogs, social networking sites, and online bill calculators" (Pacific Institute 2013).
- Planning documents. Although not typically viewed as communication tools, planning documents such as policies, annual reports, asset management plans, cost-of-service studies, consumer confidence reports, and others can perform that function effectively and also have a role to play in an overarching communication strategy. It is useful to be able to demonstrate the current status of the utility with concrete facts, including the condition of assets, the need to enhance security or reliability, or the need for data integration to improve efficiency or customer service (AWWA 2004, Chaman et al. 2012). For example, a metrics-driven written financial policy can provide clear direction to utility management on financial planning and rate-setting processes and can offer Board members and officials a consistent decision-making framework that moves water rates from the realm of "political tug-of-war" to "prudent business decisions" (Haskins et al. 2011, Chaman et al. 2012, Gould 2012).
- Customer charter. A customer charter is a document that establishes water customers as legitimate actors with rights, obligations, and responsibilities; a charter transparently

affirms the functions and services of the utility and can be useful in giving water agency customers a clear understanding of their rights within the utility (Chaman et al. 2012).

- Public dialogue. Although the process can prove expensive, time-consuming, and cumbersome, well-managed public dialogue sessions provide an opportunity to educate consumers to give them a deeper understanding of the systemic consequences of unreliable water supplies. Public dialogue also "can help relieve the pressure on the rate case decision-makers, especially when those decision-makers are elected officials" (Johnson Foundation at Wingspread 2012).

Component 6: Evaluate the Message

In most cases, communications are developed and delivered – but not necessarily evaluated. Without consciously evaluating the effectiveness of the message, the communication process is incomplete. Evaluation of the communication process ensures that not only did the audience learn something, but so did the entity providing the communication. In most cases it will be necessary to communicate with this audience about this project again (and perhaps again and again). Each communication is an opportunity to learn something about the audience and how the choice of frames, words, etc., resonated.

Evaluation techniques can run the gambit from taking a few moments to think about responses and how the message may be modified, to conducting a formal survey-based message evaluation. When evaluating messages, be sure to identify any specific words that may have triggered unintended audience interpretations. For example, "emergency response" means very different things to different audiences – everything from "I need to call my relatives" to "I should implement a detailed evacuation plan."

Remember, because communication is between fallible human beings, no communication effort will ever be perfect. Therefore, it is important to learn from the past so that one can improve in the future. Be sure to identify how to measure success before the communication is delivered.

MESSAGES FOR RATE SETTING

Presented here are specific messaging ideas for utilities to employ or avoid during rate-setting communication, as identified in the research literature. Recommended messages include:

We are Committed to Efficiency

According to the Southern California Alliance of Publicly Owned Treatment Works, it is difficult to use technical benchmarking to prove claims of qualities such as efficiency when the audience does not have a technical or scientific background. "A better solution is to work on demonstrating the organization's commitment to efficiency by describing past and current efforts to improve it. Efficiency is difficult to analyze or prove as an absolute state, but better understood and demonstrated as a culture of constant improvement" (SCAP 2008).

We are Doing our Part to cut Costs

Track and report at least annually on ways the utility has lowered its costs (AWWA 2004). This message connects well to the one above.

Water Utilities are Critical to Quality of Life

A plentiful supply of clean water sustains both public health and the economy. Utilities protect the environment, and they help maximize the potential benefit of local resources while helping their communities meet their increasing needs (Westerhoff et al. 2005, SCAP 2008, Johnson Foundation at Wingspread 2012).

Failing Infrastructure is bad News for the Economy

Utilities can demonstrate a connection between sound asset management and other community goals, such as economic development. Visual presentations or facility tours for Board members, city officials, chamber of commerce members, or local business leaders can help call attention to infrastructure repair needs (AWWA 2004).

The Value Provided in Reliable Water Service Justifies Costs

Consumers are often unaware of the real cost to provide water and also often have little sense of the value of water. "Tap water in the United States has a long history of being readily available and inexpensive. It has been so cheap and plentiful as to devalue its actual worth" (Johnson Foundation at Wingspread 2012). In emphasizing the value of water to the consumer, it is important not to detract from the equally important message of the value of the substantial infrastructure required to provide ready access to this "free, renewable resource." Remember, "raw water may be an inexpensive input, but potable or 'finished' water is a value-added commodity that is provided on demand for a variety of daily uses, from drinking water to fire protection… [and] the capacity to provide water is maintained regardless of whether a drop is used on any given day" (Beecher 2011, Beecher and Chestnutt 2012, Pacific Institute 2013).

Cheapest is not Always Best

Many people will not purchase the cheapest type of gasoline because it is not the right choice for their car. Similarly, the lowest level of investment in water infrastructure is not always the right choice for a community. Investment in water services should reflect the costs necessary to ensure future quality of life (SCAP 2008).

Inaction Costs Money, too

It is important to discuss openly the potential for degradation. Utilities can present accurate information about the full implications of a decision to not raise rates, educating their audiences about the anticipated costs of inaction (SCAP 2008, Walton 2010, Dale et al. 2012, Johnson Foundation at Wingspread 2012).

Conservation has Many Meanings

Conservation can be synonymous with rationing; others view it simply as the implementation of efficient practices. However, conservation can also be understood as "a long-

term investment strategy in water supply that will offset future capital costs to ratepayers" (Johnson Foundation at Wingspread 2012).

Careful Water Management has Many Meanings

Careful water management means different things to different stakeholders. "To rate payers, careful water management means safe, reliable water at a reasonable (low) price; to the water utility it means safe, reliable water at a reasonable (double-digit) profit; and to the regulators it means safe, reliable water at a reasonable (greater-than-inflation profit) rate" (Kurland and Zell 2011).

We are Responsible Stewards of Water Resources

Utilities manage water resources on behalf of the public to achieve long-term supply, as well as financial and environmental sustainability. "The blue industry is a green industry" (Beecher and Chestnutt 2012).

These messages are NOT recommended:

We Have the Lowest Rates in our Vicinity

Although rate comparison has a place in the rate-setting process, using this information as a basis for stakeholder communication is counter-productive. It plays into the fallacy that the lowest rates are the best by default. In reality, rate comparison is often a low-quality benchmark that leads to poor decision-making (SCAP 2008, Berahzer et al. 2011).

Water Costs Less Than Your Cable Bill

Water consumers have demonstrated a negative reaction when utilities compare their rates to discretionary expenditures (e.g., cable television, movie rental) (AWWA 2004).

We are Involved in the Political Landscape

Focusing on politics when presenting issues to a governing body or elected officials is an ill-advised strategy. "In the proper relationship between staff and policy makers, the [utility] staff should be branded as the water or wastewater experts. If staff members focus on the politics, it may be perceived by policy makers as inappropriately crossing the lines of responsibility" (SCAP 2008).

Water Conservation Will Lead to Lower Bills

Do not tell customers they can save on their bills by conserving water. Visible savings rarely appear, and it makes it difficult for utilities to explain why reduced water use does not always translate to a lower water bill (Johnson Foundation at Wingspread 2012).

Water Conservation is to Blame for Higher Bills

Blaming conservation activities for an increase in either individuals' water bills or overall water rates feels punitive. Scapegoating conservation for revenue loss caused by other drivers is not a good business practice. In the long-term, conservation is a cost reducer as every gallon saved is water that does not have to be pumped, treated, and delivered to the customer (Dickinson 2012, Pacific Institute 2013).

IMPROVING RELATIONSHIPS WITH POLICYMAKERS

Improving relationship with policymakers (e.g., governing board members) is another key to successful rate communications. According to a case study performed by the Southern California Alliance of Publicly Owned Treatment Works, during a period of significant rate increases – after 5 straight years of double-digit rate increases and the need for 5 more years of the same in order to fund necessary capital improvements, the Orange County Sanitation District overcame a strained relationship with its Board by instituting a more collaborative communication approach. The new "Board-centric" approach centered on recognizing the ability of Board members to provide valuable input on important issues, such as community benefits, finances, and the political landscape. The approach centered on new, more collaborative staff presentations to the Board, which included different scenarios or service levels in four strategic areas: environmental stewardship, business principles, wastewater management, and workplace environment. "Within these areas, staff members and the Board discussed service levels related to maintenance, infrastructure upgrades, and odor control, to name a few. Each scenario or option included an estimated impact on rates. This review of options also included a discussion of the risks of not investing or investing at a lower level" (SCAP 2008). Ultimately, the needed investment was approved.

EDUCATING UTILITY BOARD MEMBERS

Educating utility board members can help them obtain a deeper understanding of utility issues, challenges, and the need for rate adjustments. The Pacific Institute (2013) reports that Mississippi and Louisiana now require Board members of small water systems to attend management training. The training is organized by the State Department of Health, in cooperation with the Mississippi Rural Water Association and other organizations. By law, the training must include information on:

- Water system management and financing
- Rate setting and structures
- Operations and maintenance
- Applicable laws and regulations
- Ethics
- Duties and responsibilities of a Board member

Other states (e.g., Kansas, Ohio, Kentucky, Illinois) have developed training programs and provide incentives for participation, but do not require it. Beginning in 2012, California State Assembly Bill 54 requires Board members from mutual water companies in California to undergo two hours of training on their roles and responsibilities.

EXAMPLES OF COMMUNICATION IN ACTION

Several examples of rate communications were identified as part of the literature review that highlight several components of a successful communication strategy, as described above. Figures 4.1 through 4.7 provide examples of rate communication products developed by utilities.

An effective practice is to communicate about an activity, decision, investment, or milestone by connecting it to a specific motivation. Meaningful communication can be created by demonstrating to stakeholders the utility's commitment to organizational goals and objectives as defined in the communication strategy or other planning documents, as shown in Exhibit 4.2.

Exhibit 4.2
Sample text for linking activities to motivation

"The North Fork Reservoir project plan has been approved by the City Council, which is a critical milestone in improving water reliability and drought resiliency in the region. This project will allow our region to weather multi-year droughts with little or no cutback in service."

"Completion of the water quality laboratory will allow Metro Water to meet its goal to improve water quality and increase its knowledge of water quality issues."
Source: SCAP 2008.

The text shown in Exhibit 4.3 is drawn from a case study exploring efforts by the West Basin Municipal Water District to rebrand their recycled water as "designer water" that is designed to meet specific needs. This includes characterizing their recycled water as five water products at different grades developed for different uses and sold at different prices.

Exhibit 4.3
Sample text for linking activities to motivation

West Basin has developed a series of water products derived from the same wastewater source that meet the needs of specific customers. These products include the following:

Irrigation, Tertiary Water – This water is tertiary treated and is designed for irrigation, certain industrial applications, and street sweeping. This water is delivered to over 200 customers.

Cooling Tower, Nitrified Water – This water is designed for use in industrial cooling towers and is delivered to several oil company customers.

Low Pressure Boiler Feed Water – This water is treated by microfiltration, reverse osmosis, and decarbonation, and is designed for use in low pressure boilers. This product is delivered to several oil companies.

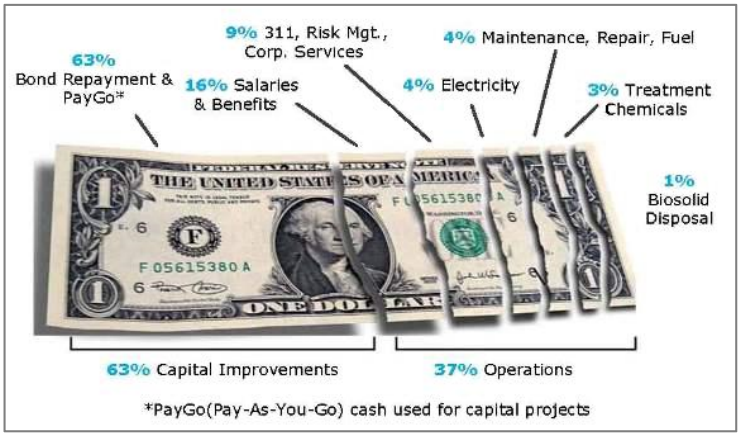
High Pressure Boiler Feed Water – This water is similar to the low pressure boiler feed water except it is passed through the reverse osmosis process twice to the meet the ultra-pure water requirements of high pressure boilers. This product is delivered to Chevron.

Seawater Barrier Injection Water – This water is used for injecting into the coastal aquifers to prevent seawater intrusion. It is similar to the low pressure boiler feed water except it is also treated with peroxide and ultra violate [sic] light to oxidize specific contaminants. Finally, it is softened to be compatible with the pipes that convey it to the injection wells. This product is delivered to the Water Replenishment District in Southern California.

"All of these water products use the same source water and, when viewed as a whole, communicate that recycled water is a manufactured product - water that is adapted for the application. It also positions West Basin as the source of quality, which is absolutely true. Each year West Basin conducts over 30,000 water quality tests and works with an independent advisory panel to ensure high water quality. Finally, these water products are priced differently. Prices range from 70 to 80% of potable water for irrigation water and some industrial waters, moving to double the price of potable water for water that meets the requirements of high pressure boilers. Customers will pay for value."

Source: SCAP 2008.

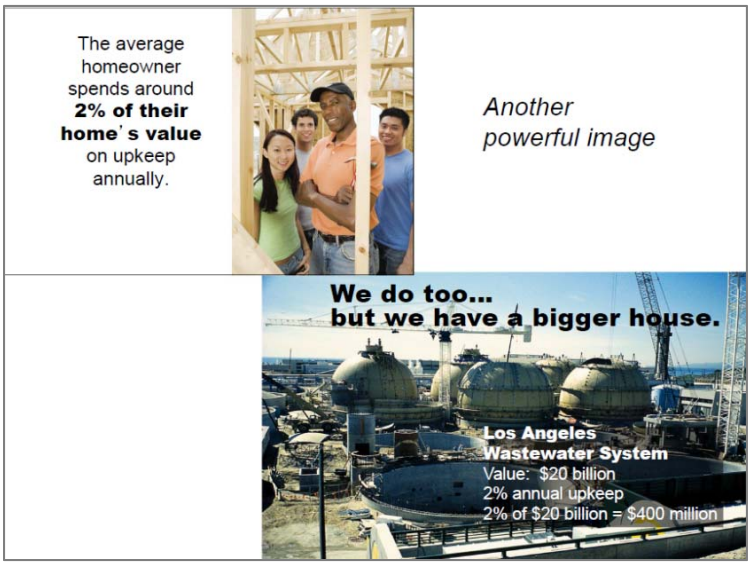
The eye-catching graphic shown here in Figure 4.1 was developed by Charlotte-Mecklenburg Utilities (now called Charlotte Water) clearly communicates with its stakeholders about how the utility spends its money, divided into capital and operations and maintenance (O&M) costs.



Source: Charlotte-Mecklenburg Utilities 2013.

Figure 4.1 Example infographic for communicating costs

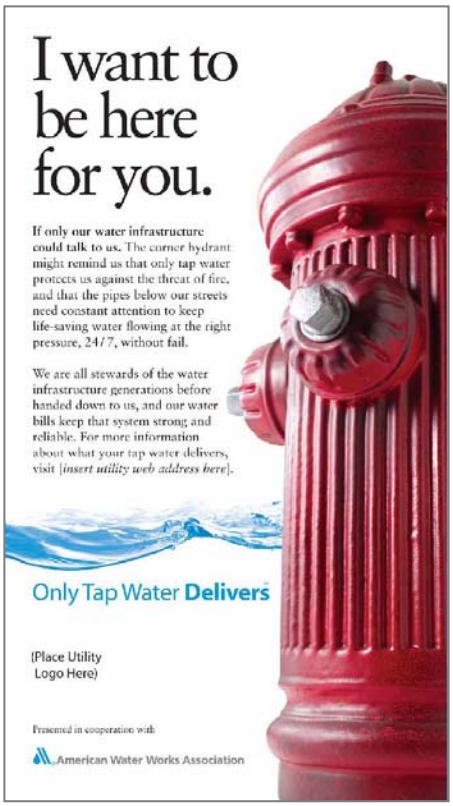
The highly effective juxtaposition of messages and imagery shown here in Figure 4.2 was included in a City of Los Angeles presentation given at an Association of California Water Agencies conference.



*Sou*rce: Dale et al. 2012.

Figure 4.2 Example message regarding infrastructure maintenance

The image in Figure 4.3 is one of a series of materials designed for AWWA's "Only Tap Water Delivers" campaign. The campaign launched in 2006, and the toolkit of materials is customizable by individual utilities to leverage the resources of a national campaign at the local level.

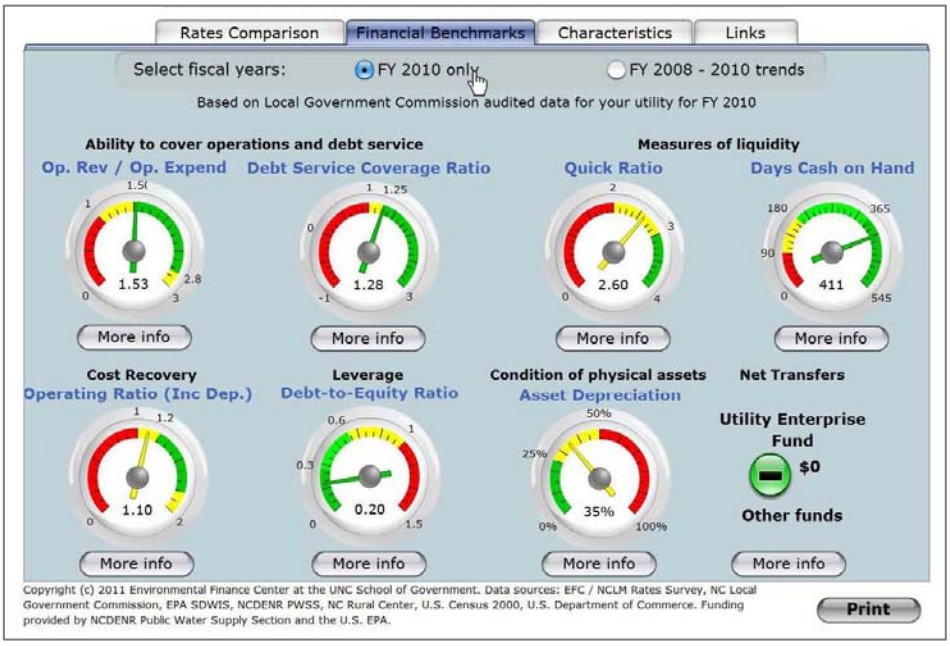


Source: AWWA 2006b; Reprinted from the *2006 Only Tap Water Delivers* campaign, by permission. Copyright © 2006 American Water Works Association.

Figure 4.3 AWWA brand messaging for tap water

Source: ACWA 2011.

Figure 4.4 ACWA brand messaging for tap water



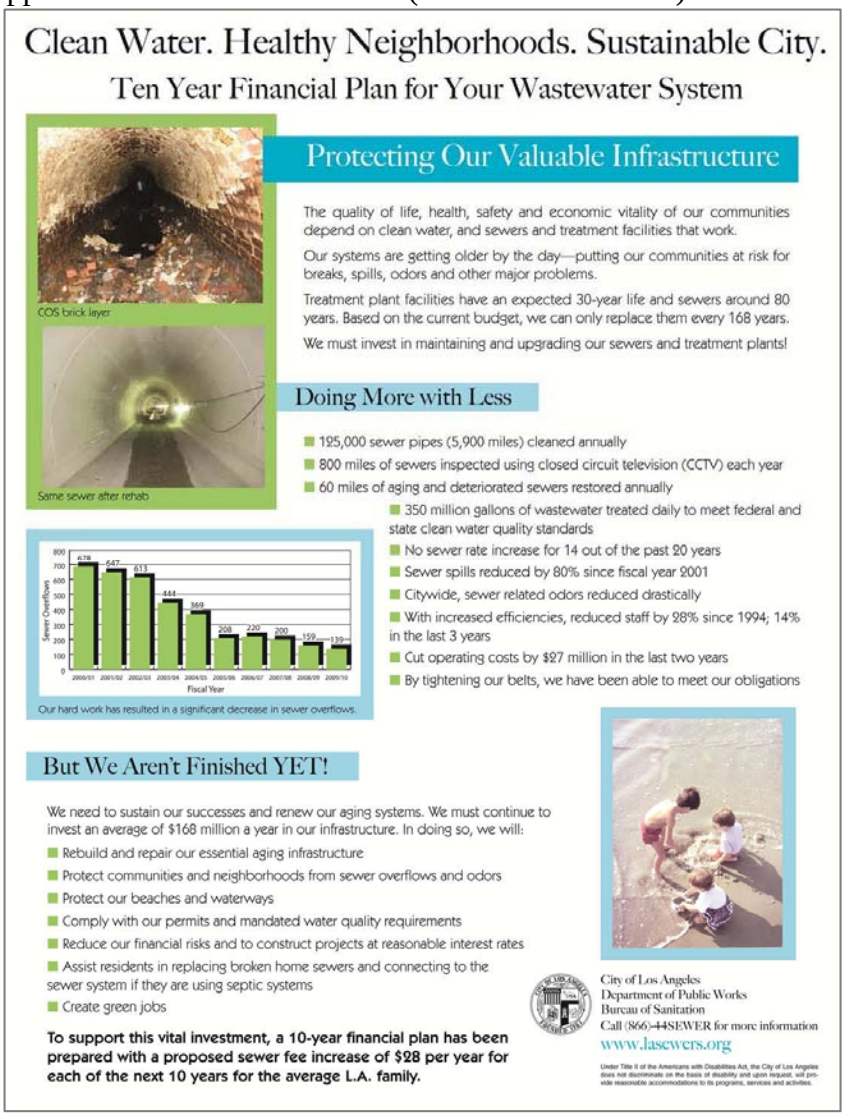
Source: Berahzer et al. 2011.

Figure 4.5 Example dashboard

Benchmarking data can be compiled and visualized using utility dashboards, such as this rate-focused dashboard (Figure 4.5) developed by the Environmental Finance Center (EFC) at the University of North Carolina at Chapel Hill. Visualizing the data enables effective decision-making for Board members and city officials. “Utility managers have reported that they have used the Rates Dashboard to successfully make the case for raising rates in jurisdictions where rate

increases were previously blocked by unconvinced governing bodies worried about affordability for customers or that the utility's rates may seem too high compared to other utilities' rates. Using the Dashboard, utility managers were able to present information on affordability and rates comparisons, along with critical information about cost recovery. Utilities that have historically maintained lower-than-necessary rates due to affordability or comparison concerns can now clearly see that they are not recovering enough revenue to pay for their expenses, and the case for a rate increase becomes more apparent to the decision maker" (Berahzer et al. 2011).

Representatives of the City of Los Angeles Department of Public Works/ Bureau of Sanitation distributed a fact sheet at community meetings (image shown in Figure 4.6), using it to create an open dialogue with community members about rate setting. It has enough numbers without overwhelming a non-technical audience, and it emphasizes the work completed by the utility using funds from a previous rate increase. The fact sheet was available in both English and Spanish.



Source: Dale et al., 2012.

Figure 4.6 Example fact sheet

CHAPTER 5
RATE CASE EXPERIENCE AND NEEDS FINDINGS

INTRODUCTION

This chapter summarizes the findings from a written survey provided to utility managers and governing board members, as well as interviews, workshops and webinars held with utility managers and governing board members to obtain additional perspectives on the rate communication process.

SURVEY OVERVIEW

A large sample survey was administered to city and county managed water utilities from across the country to better understand the processes, perceptions, and outcomes involved in the development and consideration of water rate communications. The survey was designed to provide insight on a host of specific question including: How do utilities across the country determine if new rates are needed? Who leads the effort to develop the case for new rates? Who participates in the development and presentation of a rate request? What information is presented to governing boards as part of the process and how effective is that information in informing decision-making? What role does the board and public play in the process?

The survey consisted of two separate questionnaires, one of which was designed to be completed by utility staff[1] (e.g. city manager, county manager, public works director) identified as leading the rate approval process, and the other was to be completed by an elected official that serves on the governing body with formal rate approval authority (typically the mayor, city council chairperson or member, county commissioner chair or member, etc.). The different questionnaire versions shared some of the same questions, however the staff survey included more factual questions relating to the rate review process. Both versions of the survey asked respondents for their opinions about the perceived effectiveness of different types of information and presentation methods utilized in their most recent rate case. The survey was administered by the ICMA, the largest local government professional association in the country. ICMA's membership is dominated by public officials that work for cities and counties and as a result, the survey focused on utilities which were owned and operated by cities and counties. Information from other types of utilities such as authorities, districts, and investor owned utilities was collected as part of the in-person utility interviews process described in Findings from Focused Interviews below.

The survey sampling pool was created by selecting a sub-set of the local governments in ICMA's master database of local governments. The resulting survey sample, while not purely representative of the universe of city and county utilities, was carefully crafted using a modified convenience sampling process to maximize the likelihood of receiving responses from different sized municipalities across the country that were likely to have water utilities. The draft versions of the questionnaires were pretested with a small group of utilities. Feedback from the pretests was used to modify the survey questionnaires prior to their final distribution. Final versions of the survey questionnaires are included in Appendix A.

[1] Corresponding to ICMA's preferred terminology, staff respondents were referred to as Chief Appointed Officials and board members were referred to as Chief Elected Official in questionnaire.

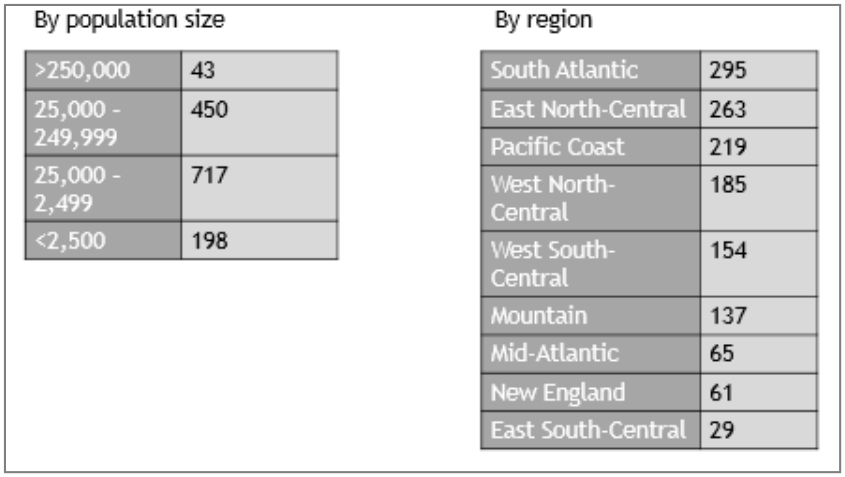
SURVEYED UNIVERSE

Matching pairs of the staff and elected official survey were sent out to 5,750 local governments in May 2014 via U.S. Mail. Respondents were requested to complete the survey in written format, or electronically through a website. A total of 2,110 staff questionnaires and 781 board member questionnaires were returned. Only survey questionnaires that were completed properly and returned from local government respondents whose jurisdiction provides water services and who were involved in the rate approval process were used in the analysis. A total of 1,408 staff member surveys and 329 board member surveys were analyzed after cleaning the data for consistency (see Table 5.1).

Table 5.1
Survey respondents

Description	Chief Administrative Officers	Chief Elected Officials
Matched surveys sent	5,750 (4,439 cities; 1,311 counties)	5,750 (4,439 cities; 1,311 counties)
Surveys returned	2,110	781
Surveys returned from local governments that manage and set rates for water utilities	1,408	329
Matched sets from same local government	202	

In total, at least one of the survey questionnaires was returned by 1,535 local governments for an overall response rate of 27%. Staff were much more likely to complete their version of the survey than governing board members. Two matching surveys were returned from 202 utilities. Different types of utilities (city and county), different sized utilities, and different regions of the country were well represented by survey respondents (see Figures 5.1 and 5.2).



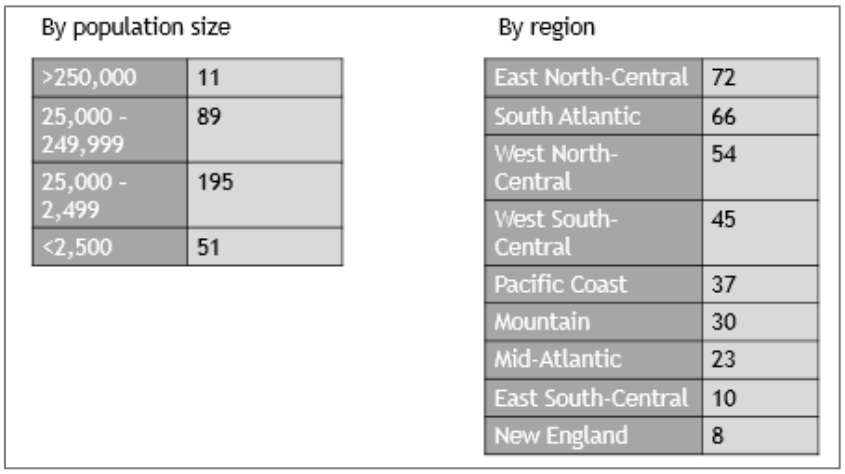
By population size

>250,000	43
25,000 - 249,999	450
25,000 - 2,499	717
<2,500	198

By region

South Atlantic	295
East North-Central	263
Pacific Coast	219
West North-Central	185
West South-Central	154
Mountain	137
Mid-Atlantic	65
New England	61
East South-Central	29

Figure 5.1 Example table for communicating costs -staff respondents by region and local government population size



By population size

>250,000	11
25,000 - 249,999	89
25,000 - 2,499	195
<2,500	51

By region

East North-Central	72
South Atlantic	66
West North-Central	54
West South-Central	45
Pacific Coast	37
Mountain	30
Mid-Atlantic	23
East South-Central	10
New England	8

Figure 5.2 Example table for communicating costs -elected official respondents by region and local government population size

The staff that reported to have led rate processes among the surveyed utilities had varying degrees of experience in local government as shown in Figure 5.3. The survey captured information from both local government rookies with as few as 1 year of service to experienced local government veterans with over 30 years of service.

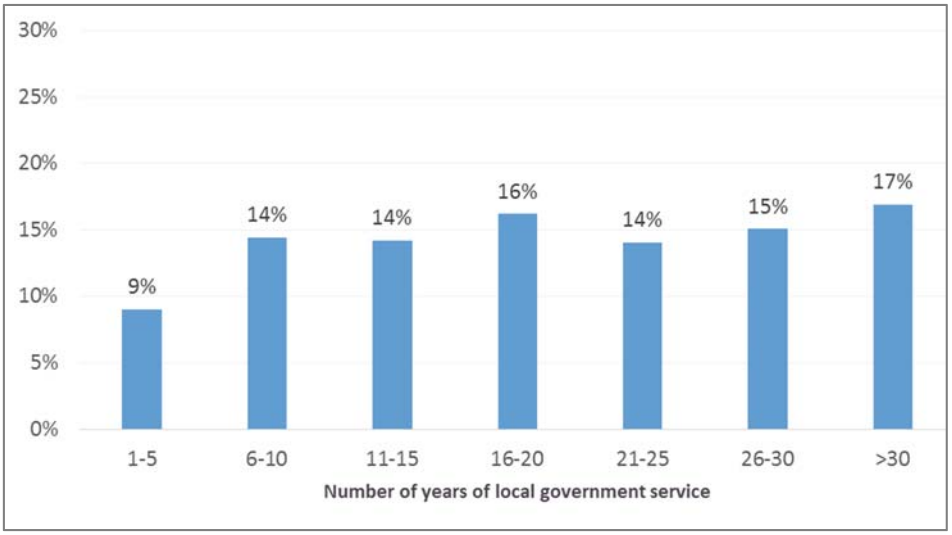


Figure 5.3 Years of local government service reported by respondents of the staff survey

Elected officials that completed the survey also had varying degrees of experience in local government, particularly the local government for which they were answering questions about, as shown in Figure 5.4. Most elected officials had served that particular local government between one and 20 years.

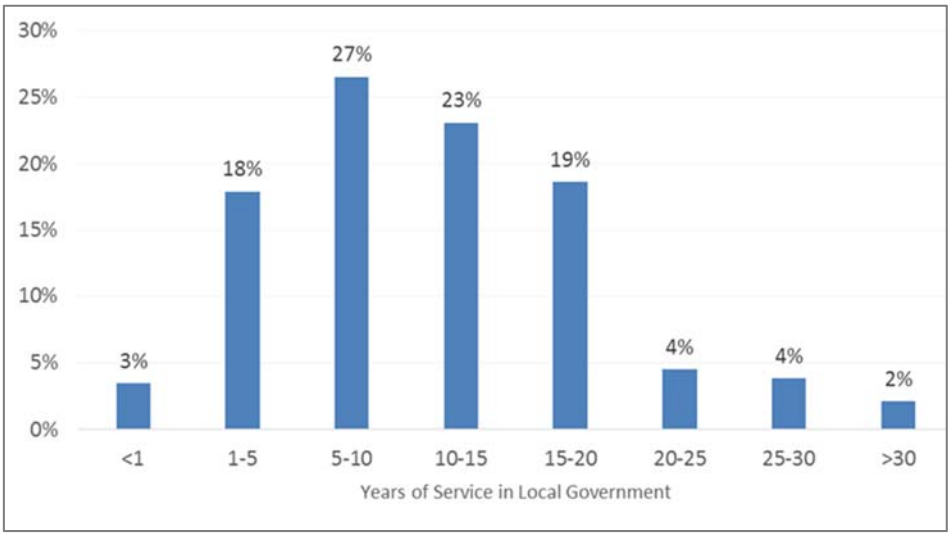


Figure 5.4 Years of local government service reported by respondents of the elected official survey

Local government management structures varied across the sample set, however, most were from City or County forms of government.

WHO REVIEWS AND APPROVES RATES?

In most states in the country, a locally elected governing body (city council or county commission) is responsible for approving changes to the rates charged to consumers by city or county water and sewer utilities. This process is very different from the review and approval process that is in place in most states for investor owned utilities, as well as in states such as Maine and Wisconsin, where a utility commission/public service commission plays a major role in rate approval for the water utility. As such, the survey was used to collect information about the make-up of the governing board. The size of governing board, for example, is one characteristic suspected to have an impact on the use of various communication strategies the engage the board, and the relationship between utility staff and the governing board. The size of the governing board for the survey respondents ranged from as few as three to more than 10 with most boards having five (34%), six (11%), or seven (38%) members (see Figure 5.5).

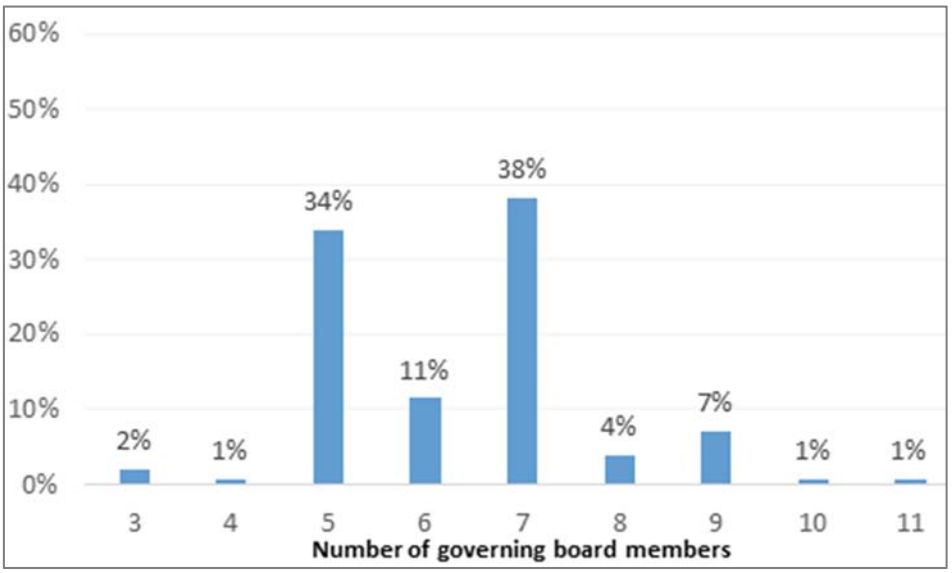


Figure 5.5 Size of governing board charged with approving rates

DEVELOPING THE CASE FOR RATE ADJUSTMENTS

The survey highlighted the diversity of approaches used across the country to prepare and present rate adjustment requests to governing boards for approval. The majority of staff respondents reported that rate reviews occurred on an annual basis with just over half occurring as part of the annual budget review and an additional 15% occurring annually but at a different time than the budget review. Twenty-eight percent reported reviewing rates on an as-needed basis. The remaining 5% reported a range of approaches that generally involved regular but less frequent reviews (e.g., every 5 years), as shown on Figure 5.6.

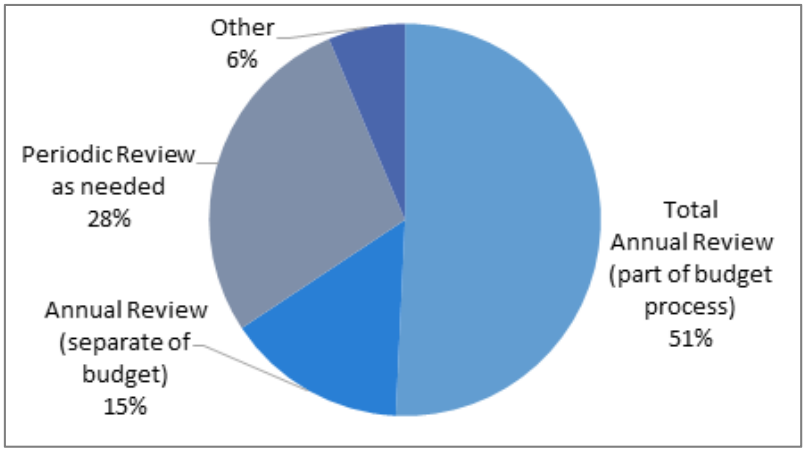


Figure 5.6 Frequency of rate review (n=1385)

Respondents were also asked to identify one or more methods that were used to analyze utility rates prior to developing a formal rate adjustment request. As shown In Figure 5.7, most utilities rely on staff review of costs as an essential component of their rate review. However, almost half (49%) of the utilities reported engaging an external consultant and approximately a third of the utilities (32%) had a governing body subcommittee review the rates. Nine percent of the utilities chose to involve a citizen advisory committee in the rate review. While some utilities incorporated citizens directly into the review process through advisory committees, the majority of utilities reported much less active efforts to engage the public. In most cases citizen participation efforts focused less on involvement and more on basic education and outreach. While over half of the utilities reported that minimal efforts were used to educate and inform the public, less than a quarter of the respondents (23%) indicated that more active outreach initiatives such as widespread circulation of flyers or press releases took place.

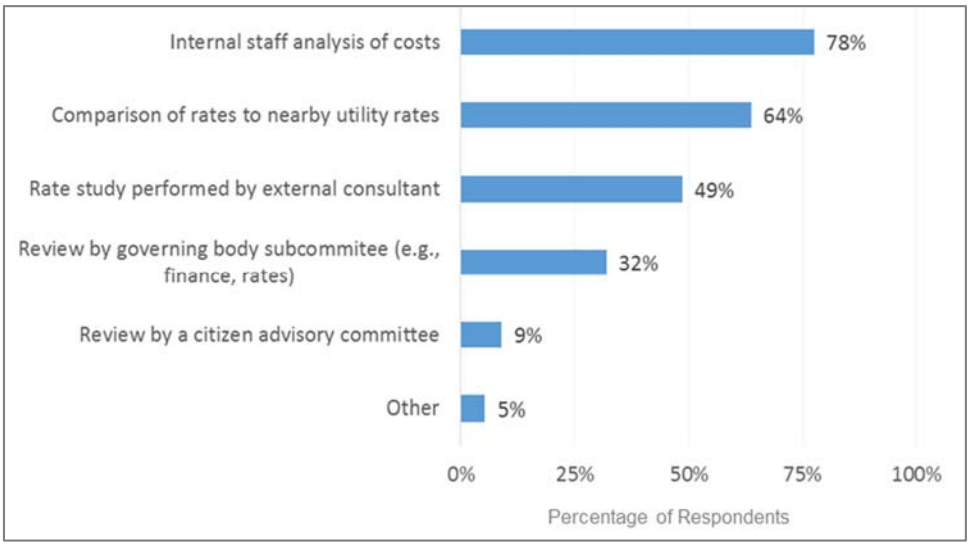


Figure 5.7 Activities undertaken to review rates prior to the rate approval request (utilities could select multiple activities) (n=1368)

Recognizing that the rate approval process often cannot be separated from the discussion of other financial management topics, the survey included questions about the general approach

used by local government staff to discuss utility financial topics with their governing boards. The results indicated that while some local governments that were surveyed regularly discuss utility finance issues with the governing board (21% every 1 to 2 months), others rarely discuss such issues. In fact over half of the respondents reported that their governing boards discussed these issues with staff once a year or less (see Figure 5.8).

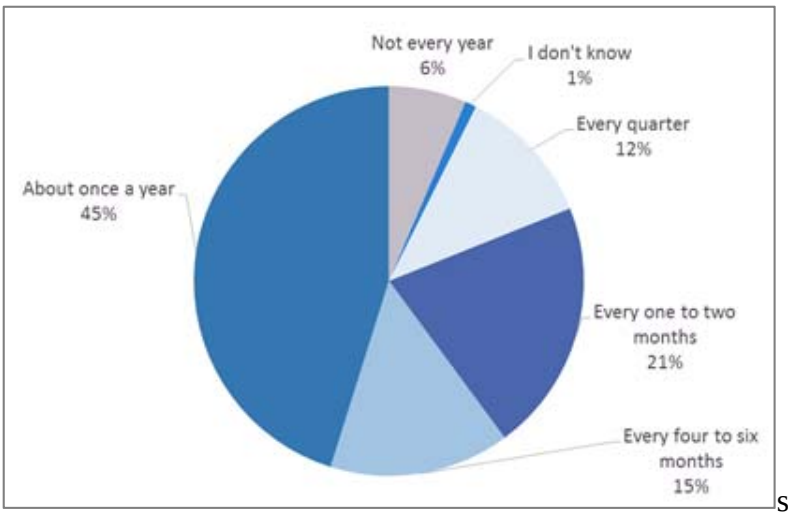


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Figure 5.8 Frequency of formal meetings between local government staff and governing board to discuss water utility financial issues (n=1384)

THE MESSENGER

City and county managers were the most common messenger tasked with delivering the utility rate request, as shown in Figure 5.9, followed closely by water utility/department directors. Outside consultants presented the rate case in 11% of the communities. In some cases, elected officials such as the Mayor or a sub-committee of the board presented the request to the entire board.

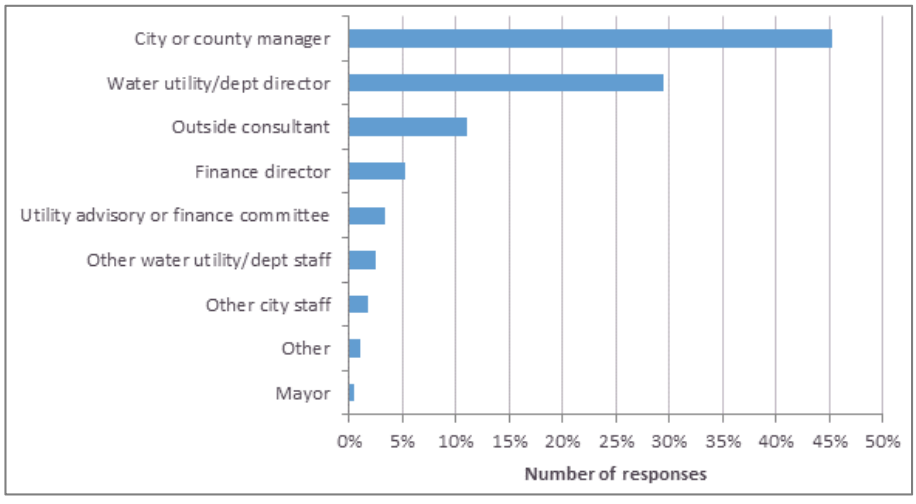
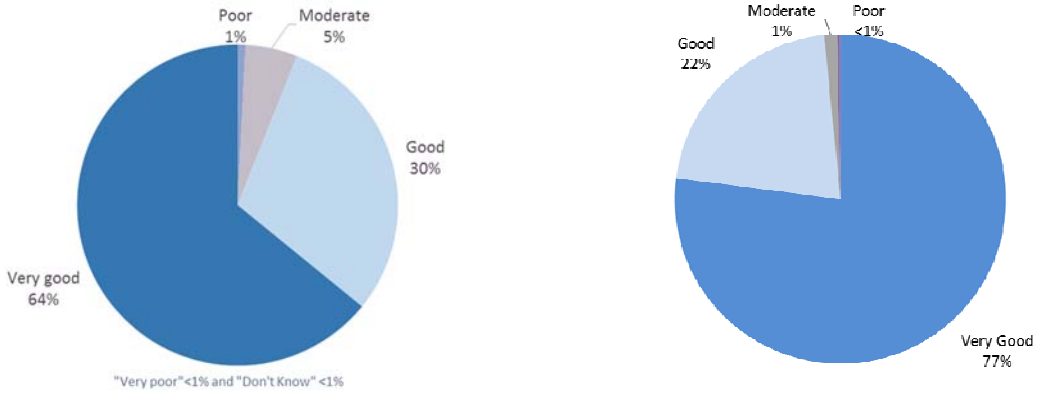


Figure 5.9 Individual or entity with primary responsibility for presenting the last rate modification request (n= 1371 local governments)

THE WORKING RELATIONSHIP BETWEEN STAFF AND ELECTED OFFICIALS

Utility staff and elected officials were both asked to assess the working relationship (e.g. confidence, trust, etc.) between the local government governing body and top level administrators and managers of the water utility. Although a very subjective (and potentially capricious) question, it was important to attempt to gauge trust between the two entities, as it directly relates to communication. The vast majority of staff and elected officials assessed the working relationship as very good or good (Figure 5.10).



Responses from utility staff (n=1,382) Responses from elected officials (n=318)

Figure 5.10 Assessment of working relationship between governing body and utility administrators by utility staff (left) and elected officials (right)

Matching responses from both elected officials and staff surveys to this question were completed for 198 utilities. Among this group, staff and elected officials from 145 utilities agreed with each other relative to this rating. In 36 cases, the utility staff member rated the relationship lower than the elected officials and in 16 utilities, staff members rated the relationship as stronger than their elected official counterparts.

PRESENTING THE CASE FOR NEW RATES: THE PROCESS AND THE MESSAGE

Utility staff respondents were asked to describe their existing utility rates and to characterize the rate adjustments that their governing board were asked to approve. Three quarters of the staff respondents reported providing their governing board with a single rate adjustment request while the remaining respondents reported providing their boards with multiple scenarios. Figure 5.12 shows the range of requested rate modifications among the sample for utilities that proposed a single rate modification. Most of these requests were between a one and 12% increase as measured by the impact on the average residential customer bills, however, some utilities reported rate increases above 24% and a few utilities requested rate reductions. The average rate adjustment recommendation reported by this group was 9.2% and the median increase was 5%.

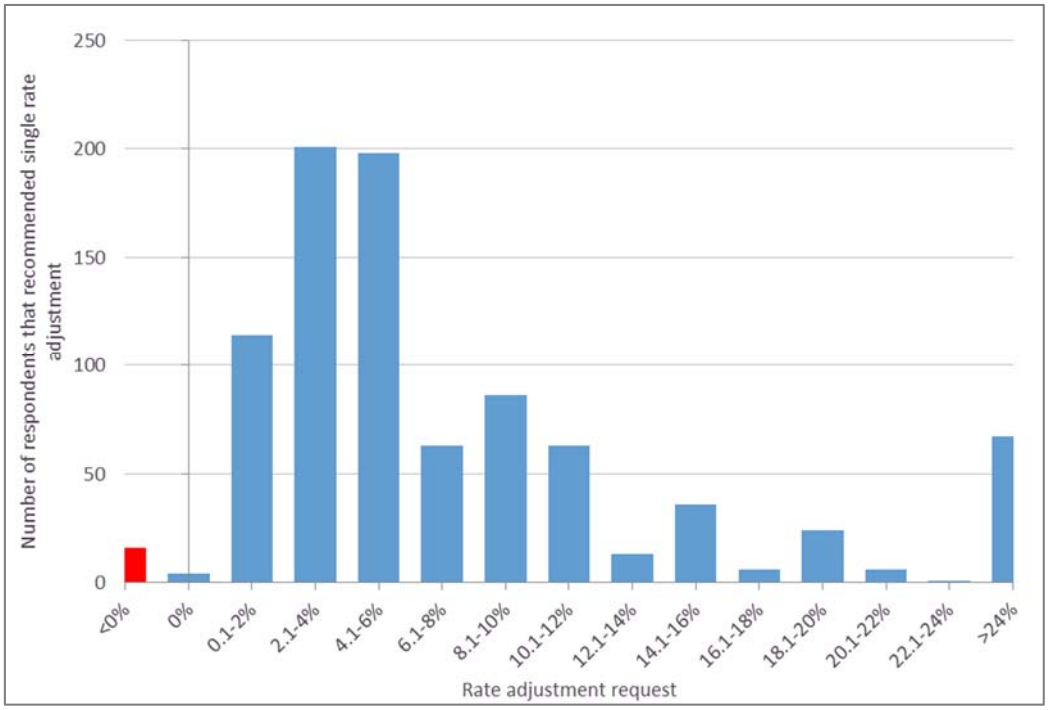


Figure 5.11 Range of recommended water rate increases for the average residential bill for utilities that recommended a specific set increase (rather than multiple scenarios) (n=857)

An overwhelming majority (91%) of these rate requests were approved by the governing board at 91 to 100% of the rate adjustment request (Figure 5.11). However, there were some regional differences in the outcomes (Table 5.2) with some areas such as the Pacific Coast reporting very high rate approval percentages (97.1%) and some such as New England reporting significantly lower approval percentages (87.7%).

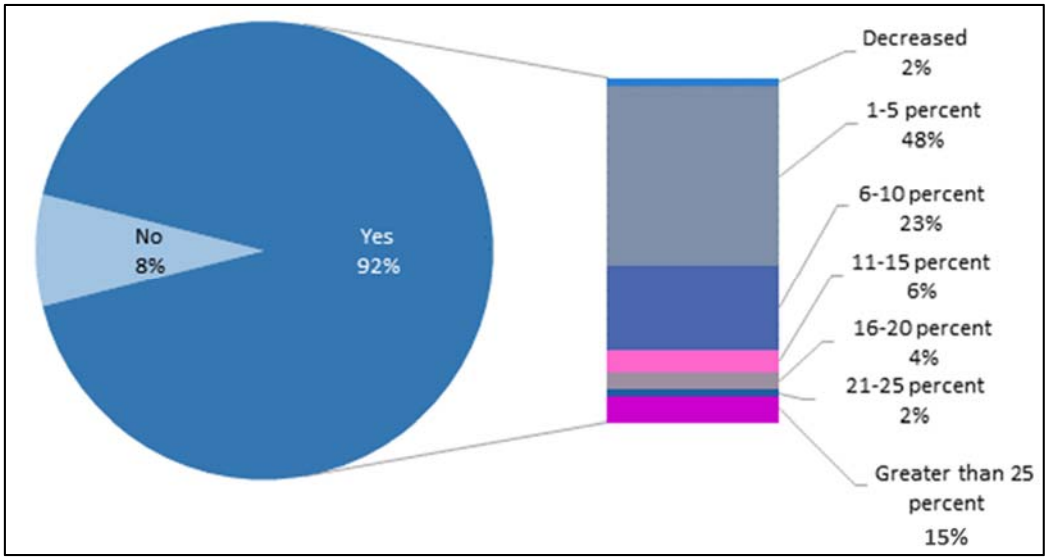


Figure 5.12 Percent of staff respondents indicating that their governing boards approved requested rate modifications and the amount of those approvals (n= 1330)

Table 5.2
Rate case governing board approval rates,
as reported by staff in different regions of the country (n=1323)

States with regulated water companies	
Pacific Coast (AK, CA, HI, OR, WA)	97.1%
Mountain (AZ, CO, ID, MT, NV, NM, UT, WY)	96.9%
East North-Central (IL, IN, MI, OH, WI)	95.2%
West South-Central (AR, LA, OK, TX)	93.2%
East South-Central (AL, KY, MS, TN)	92.9%
West North-Central (IA, KS, MN, MO, NE, ND, SD)	91.5%
South Atlantic (DE, FL, GA, MD, NC, SC, VA, WV, D.C.)	90.0%
Mid-Atlantic (NJ, NY, PA)	88.7%
New England (CT, ME, MA, NH, RI, VT)	87.7%

In addition, when asked how sufficient the last recommended rate increase was in meeting utility financial needs, many utility staff respondents reported that the rate recommendations that were presented to their governing boards, even if approved, would not be sufficient to meet those needs. Over a third of the respondents (37%) indicated that the rates would cover basic needs but not most capital needs, and 8% indicated that the rates, if approved, would fail to cover even basic operating needs (Figure 5.13).

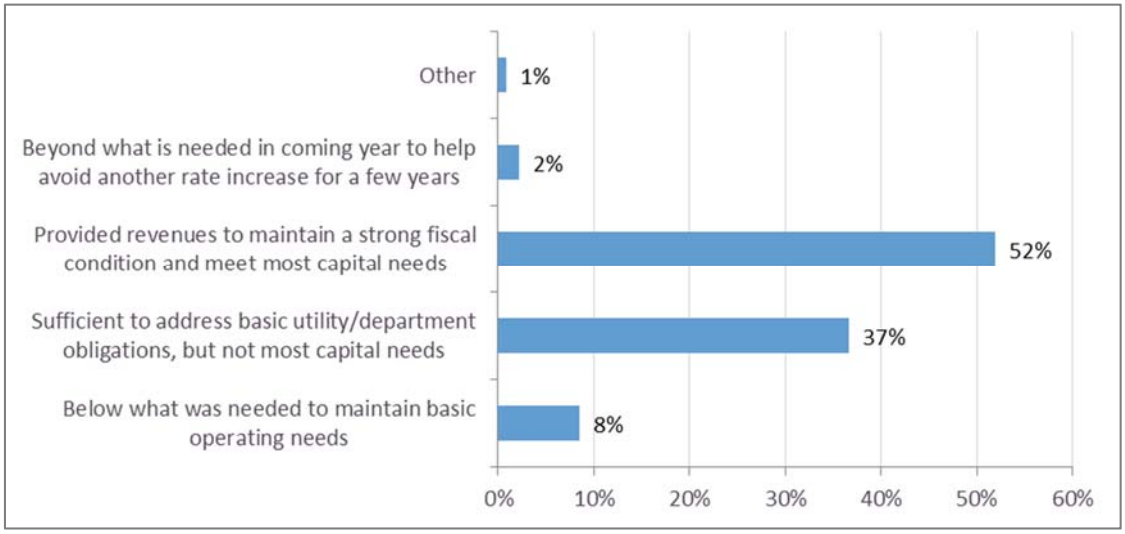


Figure 5.13 Utility staff opinions regarding the financial sufficiency of the last rate increase recommended to their board. (n=1349)

While rate approval success rate may be a positive sign that utilities are receiving rate approvals for addressing infrastructure needs, the high number of approvals should also be taken in the context that many of the rate requests (approximately 45%) were identified as being

insufficient to address financial needs (Figure 5.14). It is possible that this may have been the case because some utilities propose rate increases that they think the governing board will approve, rather than what they think they actually need.

Utilities reporting different levels of public involvement also reported significantly different levels of rate case approval, with approval rates increasing the more the public was engaged (Figure 5.14).

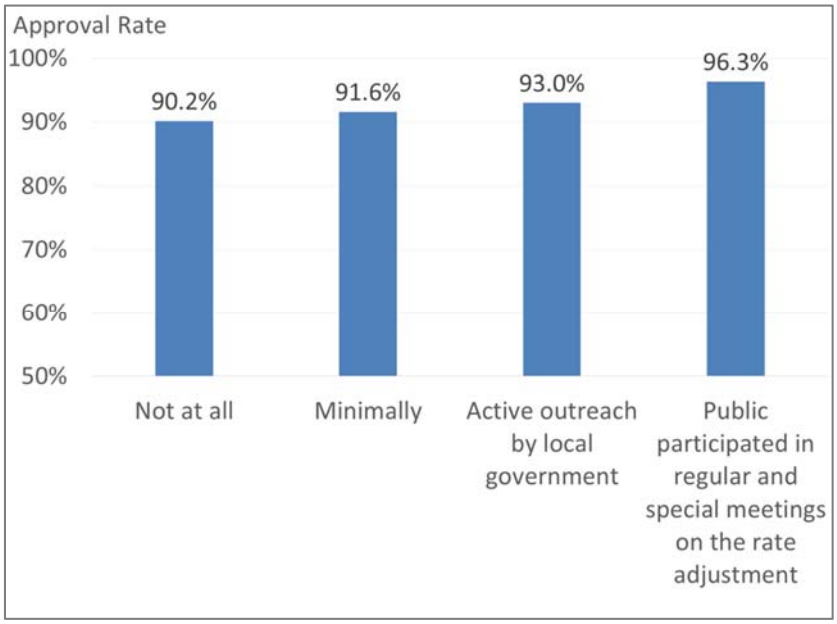


Figure 5.14 The reported rate adjustment approval percentages based on type of public involvement

Staff respondents were asked for their opinions about the types of supporting material that was included in their most recent rate request and their opinions about their usefulness and effectiveness. The results indicated that no one set of materials or type of information is universally used, however some types of information are certainly more prevalent and seen as more effective than other types, as shown in Figure 5.15. According to staff, the impact of the rate adjustment on the average bill was included in almost all rate requests and was generally viewed as being very useful. Key financial health and planning information such as cost trends, anticipated capital needs, and the physical condition of the water system was included in most requests and also generally seen as very useful. Some types of information such as comparing water rate adjustments with the costs of other services were used by far less of the respondents (approximately 40%) and viewed as less useful or not useful at all.

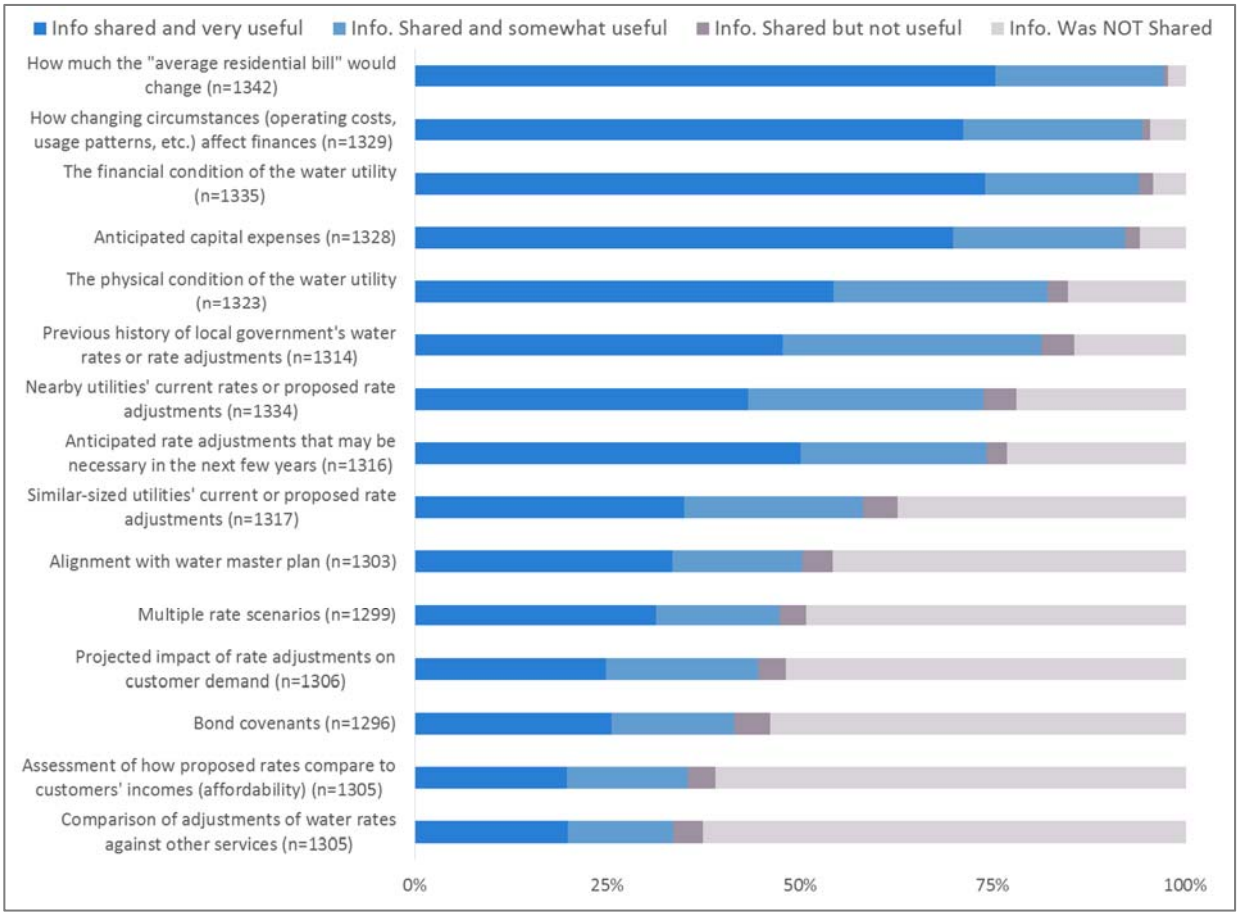


Figure 5.15 Usefulness of information shared with governing board members (utility mangers' perspective)

The governing board members that were surveyed were also asked to rate the importance and usefulness of information used to make rate adjustment decisions. As Figure 5.16 shows, the information related to financial health, particularly long term financial health, dominated their views of what was the most important information in their decision process. Customer information, such as the impact on the average household and low income households, were important to the decision process, but slightly less useful in aggregate than information regarding financial health.

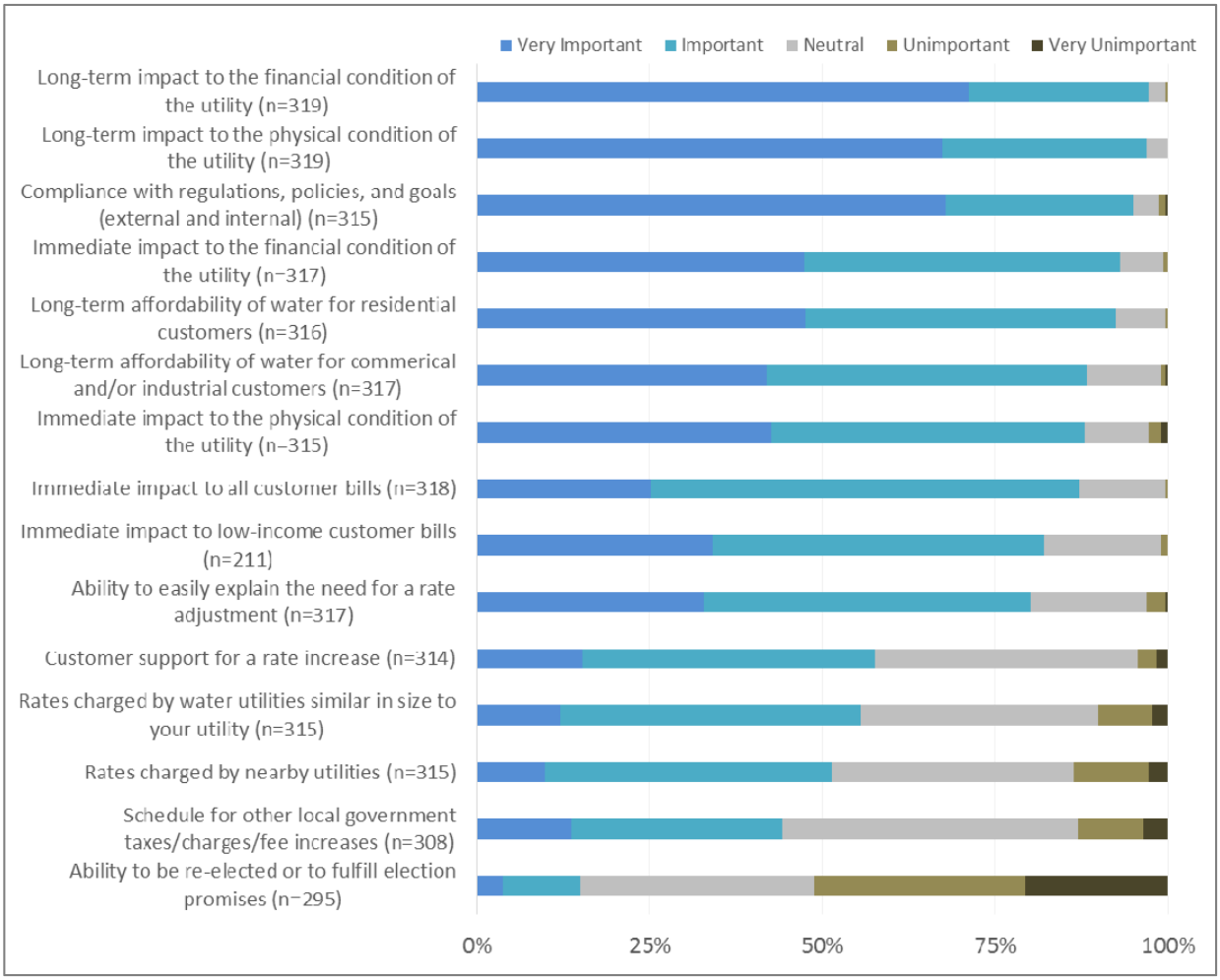


Figure 5.16 Importance of factors for governing board members in rate adoption decisions

The survey results suggest that utility staff may underestimate the value that governing board members place on linking rate adjustments to specific long term financial needs. An analysis of the utilities that submitted both staff and governing board responses to the same survey questions showed that staff from the same jurisdiction often placed a lower value on finance and infrastructure information than their governing board members did. For example, in 40% of the utilities with matching staff/elected official responses, elected officials rated physical infrastructure information as more useful to the rate decision than their staff (shaded areas in Table 5.3).

Table 5.3
Utility staff and governing board responses regarding importance of information on physical assets in making rate decisions

		Utility Staff Answers					
		Very Important	Important	Neutral	Unimportant	Very Unimportant	Total
Governing Board Answers	Very Important	30	32	15	3		80
	Important	12	51	22		1	86
	Neutral	2	8	6	2		18
	Unimportant	1		2			3
	Very Unimportant		1				1
	Total	45	92	45	5	1	

Factors Influencing the Request for Sufficient Rate Adjustments

Given that only some rate adjustment requests (in the case of the survey respondents – approximately 45%) were deemed to be sufficient to cover capital and financial needs, the research analyzed the factors that were behind the local governments that reported not only getting rate adjustment approvals, but getting approvals for what they deemed were sufficient to addressing financial and capital needs (Figure 5.10 above). A multivariate logistic regression model was used to determine the factors that were associated with rate approvals that were deemed to be financially sufficient. The model results suggested that in general, utilities with the following characteristics were statistically more likely to ask for and get approval for financially sufficient rates:

Utilities That Have a More Trusting Staff-Board Relationship

Staff that reported a very good relationship with their governing board were more likely to indicate that the rates they asked for and had approved were sufficient to address capital and financial needs. A staff member unsure of her relationship with their board may be tempted to shy away from significant rate requests even if they are needed.

Utilities That Include Capital Information With Request

Utilities that reported including capital information with the rate request were nearly three times more likely to report the approval of financially sustainable rates. This finding suggests solid information on the capital needs that are driving the need for the rate request is important to the rate approval process.

Utilities That Have Less of an Existing Affordability Challenge

An affordability burden variable was calculated for each utility based on their reported rates and income data from the U.S. Census Bureau. The modeling results indicated that utilities

with existing affordability challenges were less likely to ask for rate increases to fully fund operations and capital needs than those with less affordability challenges.

Utilities That Service a Larger City

*T*he size of the utility was also significant. Larger utilities were more likely to see financially sufficient rates approved.

Utilities that show that the rate increase was aligned with a long-term plan

The inclusion of information on how the rate increase was needed for long term planning (such as a Master Plan) resulted in rate requests that were deemed to be more financially-sufficient rates and greater rate approval success.

Utilities Overseen by More Experienced Staff Member

*T*he greater the number of years of local government service the lead utility staff member had, the greater the reported success the utility had in getting financially sufficient rates approved. Experienced staff may be more adept at developing rate adjustment cases or they may be more confident in their relationship with their board and less afraid of requesting a sufficient rate adjustment rather than settling for what is desired by governing board members.

See Appendix B for more information on the regression models developed for this project.

The Path to Greater Rate Approval Success

The survey results showed how varied rate adjustment requests have been across the country both in terms of the perceived sufficiency of the increase in meeting needs but also in the amount of the increase itself. Some utilities have found themselves trying to catch up on investment backlogs, requiring sizable annual rate adjustments. Many utilities have experienced volumetric sales declines that have required sizable pricing adjustment needs just to maintain stable revenue levels (Hughes et al. 2014). For these utilities, determining how to request and get approval for relatively high increases may dominate rate case planning. As such, the survey data were applied to a multivariate regression model to determine factors associated with the size of the rate increase approved. Using this model, the research team found that the amount of the rate increase request was, by far, the most significant predictor of rate increase approval, while controlling for all other factors. In fact, 91% of the utilities that made rate requests with single-digit increases, received approval for 91 to 100% of the amount of the request.

Another multivariate regression model was used to determine the factors associated with the rate increase requested (which essentially predicts rate increase approval). This model found the following factors to be statistically significant in predicting success in adopting relatively high rate increases:

Utilities With Significant Public Involvement

The more the public is involved during the rate case, the more likely a higher rate was requested and approved.

Utilities Where Non-Staff Members Make the Request

Utilities that reported involving consultants or advisory group members as the leading party making the formal request for a rate increase were more likely to request and receive approval for higher rate increases than utilities that had utility staff or local government officials leading the request for a rate increase.

Smaller Utilities

Smaller utilities were associated with larger increases possibly because smaller utilities may tend to require larger rate increases for revenue sufficiency.

Utilities Including Information on the Physical Condition of Assets

As mentioned above, information on physical condition appears to have considerable influence on governing board members and the data suggests utilities that provided this type of information were able to request and adopt larger increases.

Utilities That Develop Requests to Cover Operations and Capital Costs

Rate increase requests that were perceived to be sufficient to cover all operations and most (or all) capital costs tended to be higher than rate increase requests for rates designed to fall short of actual needs.

Utilities That Include Information About Nearby Utility Rates

Utilities with higher approved rate increases were more likely to show the governing board information about neighborhood utilities' current or proposed rates. One could surmise that it helped utilities when they were able to find neighboring utilities with higher rates than they wanted to enact, or were able to show that the rate increase resulted in rates that were in the range of what neighboring utilities were requesting.

While there were differences in rate approval success rates among regions, there were not significant differences in rate increase requests between regions. See Appendix B for more details on this regression model.

The relationship between each factor and the rate increase requested can be summarized by reporting the average rate increase requested for each factor. For example, the average rate increase that was requested versus the messenger or requestor is shown in Table 5.4. The results indicated that if higher rate increases were being requested, it was most likely that the messenger was an outside consultant or a utility advisory board member. The results can be interpreted in two ways – certain messengers lead to higher rate increases (perhaps because external messengers are less influenced by political pressures) or local governments are more prone to turn to specific messengers when higher rate increases are needed to help analyze and make the case for increases.

Table 5.4
Survey analysis results comparing messenger to average rate increase requested

Lead Messenger	Average Rate Increase Requested
City or county manager	8.1%
Water/utility department director	8.3%
Other water utility/department staff	6.8%
Outside consultant	14.2%
Utility advisory or finance committee	10.9%
Other	12.2%

In summary, the results of the survey regarding the process, messaging, and messenger of the rate case suggest a generally positive rate setting environment in which utilities are generally able to get their requested rate adjustments approved. The main challenge appears to be emboldening local governments to ask for the rate increase they truly need. According to these results, developing a trusting relationship between board and staff, using more experienced staff and/or external messengers, garnering public support, having a long-term plan for capital expenses, sharing information on the physical condition of the assets, and providing rate comparative information can influence a local government's willingness to request and have approved a rate adjustment that will support utility financial goals.

FINDINGS FROM FOCUSED INTERVIEWS

This section of the report summarizes the results of the utility and governing board interviews that were conducted with the participating water utilities. These interviews were group or one-on-one interviews with governing board members and utility management who were involved in the rate setting process.

Background on Interviewees

The following water utility providers were interviewed as part of this research project:

- Charlotte Water (North Carolina)
- Denver Water (Colorado)
- El Paso Water Utilities (Texas)
- Johnson City Water and Sewer Department (Tennessee)
- City of Los Angeles, Department of Water and Power (California)
- Middlesex Water Company (New Jersey)
- Mohawk Valley Water Authority (New York)
- City of Oklahoma City (Oklahoma)
- Tampa Bay Water (Florida)

- Tualatin Valley Water District (TVWD) (Oregon).

Nine of the ten organizations that were interviewed were publicly owned and operated, and one was investor owned and operated (Middlesex Water Company). Six of the nine publicly owned and operated organizations are departments of a City or County form of government, and three are independent authorities or special districts independent from a City or County government (Denver Water, Mohawk Valley Water Authority, and TVWD). One is a wholesale provider (Tampa Bay Water). A brief background on each of these utilities is provided below:

Charlotte Water

Charlotte Water is an administrative department of the City of Charlotte, North Carolina created for the purpose of operating the water and wastewater treatment, water distribution, and wastewater collection systems for the City and the County. Charlotte Water provides retail service to approximately 250,000 water accounts and 230,000 sanitary sewer accounts, and also provides utility service on a wholesale basis to neighboring municipal agencies. The utility owns its own water supply, treatment and conveyance system assets. The City Council sets the water and sanitary sewer rates for the utility, and the rates do not differentiate between City and County residents.

Denver Water

The City and County of Denver, Board of Water Commissioners (Board or Denver Water) provides water on a retail and wholesale basis to approximately 1.3 million people in the Denver, Colorado area. Denver Water owns and operates its on water supply, treatment, and conveyance facility assets. Denver Water is governed by its Board of Water Commissioners. The Board is an independent, autonomous and non-political agency of the City and County of Denver, Colorado. The Board is comprised of a five-member governing body, the members of which are appointed by the Mayor of the City. The Board is empowered to set rates for all of its customers.

El Paso Water Utilities

El Paso Water Utilities (EPWU) provides retail water and wastewater utility service to approximately 194,000 water accounts and 185,000 wastewater accounts in the City of El Paso, Texas, and wholesale water and wastewater service to several agencies in and around El Paso. The utility owns its own water supply, treatment, and conveyance system assets. EPWU is governed by the El Paso Water Utilities Public Service Board (Board) which has complete control over the management and operations of the system. The Board has full authority to approve EPWU's budget and rates. The Board consists of seven members. One member is the Mayor of the City of El Paso, and the remaining six members are appointed by the City Council.

Johnson City Water and Sewer Department

The City of Johnson City, Tennessee owns and operates water and wastewater systems that serve approximately 43,000 customers inside and outside of the city limits. The water and sewer department is an enterprise fund of the City of Johnson City. The City owns its own water supply, treatment, and conveyance infrastructure assets. The City operates as a home rule municipality and

is governed by a City Manager—Commission form of government, comprised of three commissioners, the Vice Mayor and the Mayor of the City.

City of Los Angeles, Department of Water and Power

The City of Los Angeles, Department of Water and Power (Department) is one of the largest municipal utility in the United States and provides water and electric service to approximately 3.9 million residents, consisting of almost entirely of the City of Los Angeles (City). The Department is a proprietary department of the City, and is controlled by the Board of Water and Power Commissioners, whose actions are subject to review by the City Council. The utility owns its own water supply, treatment, and conveyance facility assets, but also purchases water from the Metropolitan Water District of Southern California. The Board is comprised of five members that are appointed by the Mayor and conformed by City Council. Under the City Charter, the rates and charges for water service are set by the Board and are subject to approval by the City Council.

Middlesex Water Company

The Middlesex Water Company (Company) is a publicly-traded, investor-owned water utility providing water, wastewater, and related services in parts of New Jersey, Delaware, and Pennsylvania. In New Jersey, the Company serves approximately 59,000 water and wastewater customers in various townships within the state. The Company owns its own water supply, treatment, and conveyance infrastructure assets. In New Jersey, the Company's rates and operations are regulated by the New Jersey Board of Public Utilities.

Mohawk Valley Water Authority

The Mohawk Valley Water Authority (Authority) is a regional corporate municipal agency created by an act of the State of New York. The Authority provides retail water service to approximately 39,000 customer accounts in the Utica, New York area. The Authority owns its water supply, water treatment, and conveyance infrastructure assets. The Authority is governed by a 12 member board consisting of appointed representatives from the county, cities and towns that the Authority serves.

City of Oklahoma City

The Oklahoma City Water System serves approximately 650,000 people through 200,000 retail accounts and an additional 300,000 people through wholesale accounts within the corporate limits of Oklahoma City and most other communities within the Combined Statistical Area. The utility owns its water supply, treatment, and conveyance facility assets. The utility is governed by Oklahoma City Water Utilities Trust (the Trust) and the City Council of the City of Oklahoma City. The Trust is a public trust with the purpose of providing financing for the construction and acquisition of water and sewer facilities and other improvements to the water and sewer system serving the City. The trustees consist of the City Manager, the Mayor, one Council person, and two citizens of the City who are appointed by the City Council. Utility rates are recommended by the trustees and adopted by City Council.

Tampa Bay Water

Tampa Bay Water supplies wholesale drinking water to 2.3 million people in Hillsborough County, Pasco County, Pinellas County, New Port Richey, St. Petersburg and Tampa in Florida. The utility is a non-profit, special district of the State of Florida that is a regional utility, funded through the sale of water to member governments. The utility was created by interlocal agreement among the member governments. The utility is governed by a nine-member board of directors, with two elected commissioners from each member county and one elected representative from each member city.

Tualatin Valley Water District

TVWD provides water service to residents and businesses of two large unincorporated areas and portions of the cities of Beaverton, Hillsboro and Tigard in Oregon. The utility serves nearly 61,000 accounts and 220,000 customers in parts of Washington County, Oregon. TVWD currently purchases more than half of its annual water supply needs from the City of Portland through a wholesale agreement, and takes the remaining portion of its water supply from its capacity at the Joint Water Commission. TVWD is governed by a five-member Board of Commissioners elected to 4-year terms by the District voters.

Rate Setting Process

The rate setting process is similar among the municipally-owned utilities that were interviewed. For five out of the six utilities that are departments of city or county governments, the rate setting process occurs simultaneously with the budget process and annual or nearly annual rate increases are adopted. For the remaining municipally-owned utility that is a department of a city or county government, the rate setting process occurs on a different timeline than the budget process. For the special district utilities that were interviewed, the rate setting process was held during the same timeframe as the budget process, and for the investor-owned utility that was interviewed the rate setting process was held separately from the utility budgeting process.

Roles in the Rate Adoption Process

For many of the utilities that were interviewed, the utility manager and finance director lead the rate case discussion, often along with a discussion of the capital improvement needs lead by the Engineering Manager. The utilities surveyed reported having one or two meetings with the governing board, and some of the utilities reported having at least one public hearing, in which the rate case was discussed. The importance of having the utility manager talk to governing board members one-on-one outside of formal board meetings was also emphasized as an important vehicle for building support for rate changes.

Consultants were reportedly utilized at least periodically to convey rate case recommendations to the governing boards by all but one of the utilities that were interviewed. The consultants were said to bring credibility when rate adjustments were out of the ordinary, demonstrate careful consideration of the rate case, provide independent and objective expertise, and in one case, provide required certifications of the rate projections. In at least one case, the consultant was asked to develop a rate model and demand forecast but the translation into a requested rate increase was made by utility staff and management.

The public information officer (PIO) for the utility, if this position existed with the utility, was also frequently reported to be used during the rate case process to assist in branding the capital improvement projects, reviewing the presentations and messages to the governing board and the public, preparing public outreach materials, and putting the rate communication messages in terms that are easily understandable. The majority of the utilities interviewed had a position within the utility that filled the PIO role.

Rate Case Frequency

Many of the utility managers and governing board members that were interviewed preferred smaller annual increases to infrequent larger increases, as some of statements made during the interviews conveyed. However, not all governing board members were supportive of annual rate adjustments according to the interview comments below:

- The board is interested in more frequent, smaller, rate increases.
- Companies that file very infrequently are usually over earning. However, those that come in for a 10% rate increase every 6 months would not be well received either. There needs to be a balance.
- There is an informal understanding by staff and the board that more frequent, but lower rate increases, versus fewer but higher rate increases, are preferred.
- Typically, we adopt annual increases in the rates. This is an incremental rate policy by the board to avoid rate shock.
- We ask for a rate increase each year, but that is a sticking point.
- There has to be a better way to deal with water needs other than an increase in rates every year. We have to raise rates every year and we still can't address basic safety needs.
- Single versus double digit rate increases are preferred, but there is not general policy.
- We identify our 4-year projected rate increase needs as part of every annual budget cycle and then we decide how often and what level of increase to ask for over the 4-year period.

In the case of the investor-owned utility that was surveyed, the rate setting process is independent of the budgeting process and occurs approximately every 2 to 3 years.

External Factors Influencing the Rate Adoption Process

Both governing board members and utility management staff were asked about the influence of other factors that impact the timing, magnitude or frequency of proposed rate adjustments. The responses differed slightly by governance structure, with minimal influence by external political factors reported by utilities with a governance structure independent from a city/county governance structure, and some influence on the timing, magnitude, or frequency of proposed rate adjustments for some of the utilities interviewed with a city/county governance structure. The types of influences that were reported included the timing of tax increases, timing of other utility rate increases (such as sanitation or stormwater), and the state of the economy as shown in the comments below:

- Tax increases have some influence over the rate increase that is proposed from year to year, but rate increases are primarily influenced by current and long-term economic needs, and infrastructure needs.
- In economic downturns, there is pressure by the regulators to approve rate cases and capital spending because there is interest in job creation.
- There is urging from regional city and town elected officials to keep rates low because other utilities, such as sewer, and taxes are being raised.
- The pulse of the local economy and rate increase tolerance are influencing factors in adopting the rates.
- We maintain a rate stabilization account so we don't have to continuously ask for small rate increases. The rate stabilization reserves allow us to look at factors beyond internal budget requirements when determining when to ask for a rate increase.

Rate Adoption Process Challenges

There are many challenges in rate adoption that utility managers and governing board members experience. Some of the communication challenges that were identified in the interviews with utility managers and governing board members included explaining the need for the rate increase, overcoming general aversion by board members to raising rates, and addressing governing board members preferences for cost reduction, rather than rate increases as the example comments below:

- Explaining why the capital investments are needed now and can't be postponed into the future.
- Explaining to customers why as conservation increases, the unit cost of water also increases.
- Explaining to customers why the next increment of capacity is so expensive.
- Explaining how declining consumption is driving the need for rate increases.
- Conveying the need to manage risks: "If you don't manage your assets your assets will manage you!"
- Overcoming the general aversion to rate increases by the board.
- Addressing the governing body's preference for cost reduction, rather than rate increases.
- Pushback regarding the need for ongoing rate increases due to customer affordability issues.
- Sustainability of a long-term rate program. It will get harder and harder each year.
- Difficulty in keeping the public's interest in a long-term water supply project and implementing rate increases over time to pay for it.
- Re-education of new board members. Most of the time, there is at least one new council member that is new, so every time we go to council for rate adoption, we are starting from zero.
- Demographics are getting poorer, so affordability is becoming a larger concern.
- Deeply ingrained beliefs that are hard to change. Elected officials have beliefs and opinions that are not founded in the data, and they bring this to the rate case.
- Developing public trust, particularly after an event that was not perceived as well managed.

Information Provided to the Governing Board

The information most commonly provided to the governing boards regarding the rate case, according to the interview participants, is summarized in Table 5.5.

Table 5.5
Information provided to governing board members

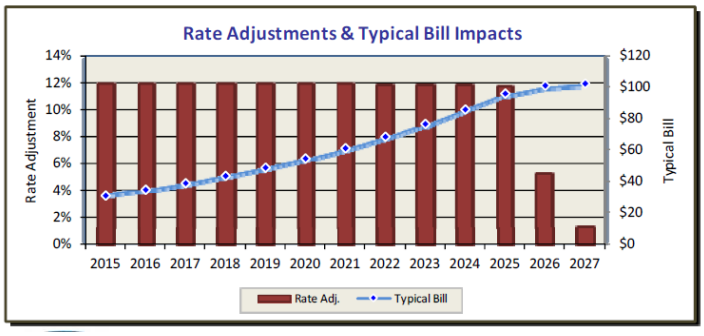
		Utility Interviewed									
	Description	1	2	3	4	5	6	7	8	9	10
1.	How much the average bill would change	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2.	How changing circumstances affects finances	✓	✓	✓	✓	✓	✓	✓	✓	✓	
3.	Anticipated capital expenses	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4.	The financial condition of the water utility	✓	✓	✓	✓	✓		✓	✓	✓	✓
5.	The physical condition of the water utility	✓				✓			✓	✓	
6.	How proposed rates compare to customer incomes	✓							✓		✓
7.	Comparisons of rates with other utilities	✓	✓	✓	✓	✓		✓	✓		
8.	Bond covenants	✓	✓	✓	✓	✓			✓	✓	
9.	Multiple rate scenarios				✓			✓			✓
10.	Projected impact of rate adjustments on demand							✓		✓	
11.	Previous history of water rate adjustments	✓	✓			✓				✓	
12.	Anticipated rate adjustments needed in the next few years	✓	✓			✓		✓		✓	✓
13.	Comparisons of water rate adjustments with other services	✓			✓			✓			
14.	Initiatives that improve efficiency				✓			✓	✓	✓	✓
15.	Customer satisfaction surveys					✓			✓		✓

As shown in this table, the most frequent information provided to governing boards regarding the utility rate case includes (1) How much the average bill would change, (2) how changing circumstances affects finances, (3) anticipated capital expenses, (4) the financial condition of the utility, and (7) comparisons of rates with other utilities. Of the information that was shared with the board, the information that the board members preferred the most included the following:

- Comparison of rates and typical customer bills with other utilities
- Summary of financial information and future financial projections
- Results from customer satisfaction surveys and other customer feedback regarding customer satisfaction
- Impacts to the rate payer
- Prioritized CIP information and how it fits with the long-term strategy
- List of drivers for the rate increases
- Rate study information showing that rates are effective and fair
- Information regarding the need for infrastructure improvements
- Rating agency opinions and financial information supporting credit rating metrics
- Affordability information such as cost as a percent of MHI and number of shut offs
- Information on how the utility has saved money, i.e. efficiency information
- Utility accomplishments, including those related to the environment, sustainability, water quality and regulatory compliance

Examples of the types of information that were provided to the governing board members are shown in Figures 5.17 through 5.20.

SURVEY TYPICAL MONTHLY UTILITY BILL			
Selected Cities	**Water**	**Wastewater**	**Total**
Moore	$24.50	$15.00	$39.50
Yukon	$29.51	$10.49	$40.00
Denver	$25.34	$15.49	$40.83
Albuquerque	$24.26	$17.32	$41.58
Norman	$18.20	$23.50	$41.70
Midwest City	$24.55	$20.80	$45.35
Wichita	$25.96	$22.57	$48.53
Arlington	$23.40	$26.60	$50.00
OKC Current	**$29.52**	**$22.08**	**$51.60**
Dallas	$23.16	$28.90	$52.06
Fort Worth	$28.56	$24.15	$52.71
OKC Proposed	**$31.11**	**$23.37**	**$54.48**
Mustang	$32.58	$22.15	$54.73
Sample Average	$32.01	$22.94	$54.95
Tulsa	$27.07	$30.61	$57.68
Edmond	$39.36	$23.01	$62.37
Piedmont	$43.68	$19.06	$62.74
Newcastle	$49.00	$14.25	$63.25
St. Louis	$40.40	$31.56	$71.97
Shawnee	$48.89	$25.25	$74.14
Kansas City	$51.13	$42.55	$93.68



Survey – Typical Monthly Utility Bill **Example Future Financial Rate Projections**

Figure 5.17 Example monthly bill comparison with other utilities

Figure 5.18 Example brochure excerpt focusing on capital needs

Figure 5.19 Example fact sheet focusing on water supply needs

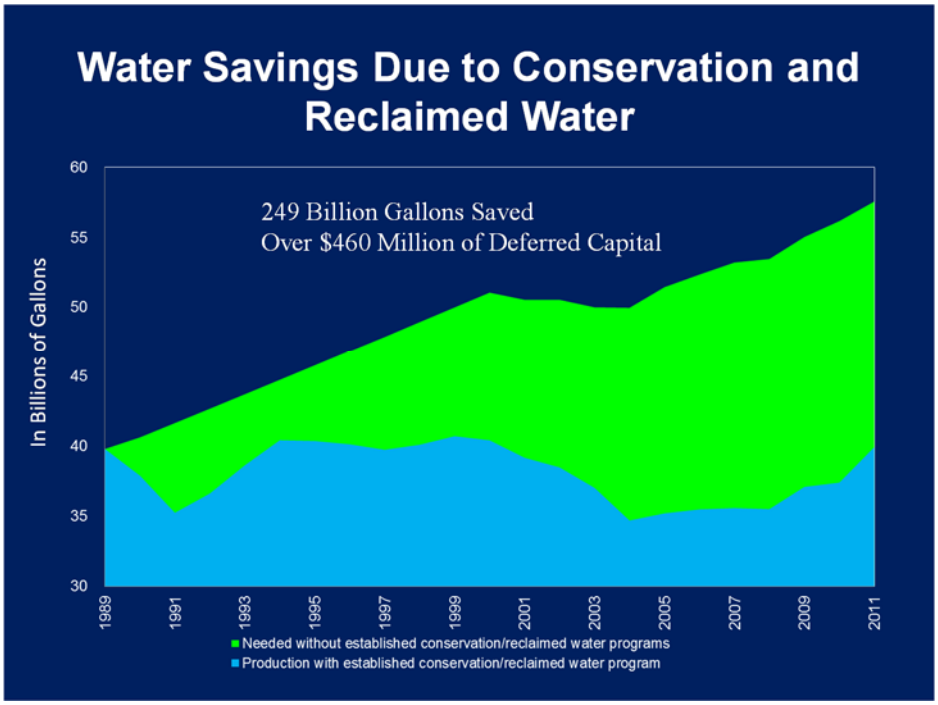


Figure 5.20 Example chart showing how a utility has saved money

This type of information was most commonly provided to governing board members in PowerPoint presentations and handouts provided to the governing board members. In most cases, governing board members preferred to receive this information in summary format, but some board members also desired to receive copies of detail reports and analysis as supplements to the summary information.

In general, consistent comments were made by governing board members regarding the desire to have information conveyed in summary format that provides a high-level overview of the rate increase needs, issues, challenges, and drivers of the rate increase, without all of the specific details. Samples of some of the statements made by governing board members during the interviews that convey this message are provided below:

- Provide very simple information to the Board. Usually just a summary page describing the major issues and budget changes.
- The board wants only high-high level information.
- We spent an hour on the water/sewer budget and rates. It's hard to keep it all straight. You get lost in the minutia.
- The company's accounting expert prepares an Excel ® summary sheet that is clear and concise.
- I prefer budget deviation summary information.
- The department is always good at showing us growth rates, growth areas, capacity, long-range plans, asset condition, and where the challenges are. He was really good at painting a picture of what the whole picture looks like.
- Keep it simple stupid (KISS) is our motto.

However, the level of detail desired by governing board members is not one-size fits all. Individual preferences may be different from board member to board member, as one governing board member and one utility manager described:

> *"Utility staff need to be adaptive to the type of information council prefers and how it is presented. This differs by council member."*

> *"I always develop both summary and detailed information so that every board member gets exactly the level of detail that they want."*

Further, some governing board members reported the desire to have sufficient detailed information, such as engineering and rate study reports, and stated that the detailed information improved their confidence in the utility rate case recommendations because the detailed information showed that the rate plan was well thought out and investigated.

Information Provided to Customers

The utility management staff and governing board members that were interviewed frequently reported that the information shared with governing board members was the same information that was shared with utility customers. However, some interviewees stated that rate alternatives and options considered by utility staff and the board members were not shared with customers, rather the final preferred rate alternative selected by the staff and the board was the only option shared with customers.

Methods of Communication with Customers

The utility management staff conveyed that utilities commonly utilize multiple avenues to communicate rate-related information to customers. A summary of the methods used by each of the utilities that were interviewed is provided in Table 5.6.

Table 5.6
Methods used to communicate with customers

		Utility Interviewed									
	Description	1	2	3	4	5	6	7	8	9	10
1.	Bill inserts	✓			✓	✓	✓	✓	✓		✓
2.	Newsletters and Brochures	✓			✓	✓	✓	✓	✓		✓
3.	Rate information posted on the utlity website	✓		✓		✓	✓	✓	✓		✓
4.	Live streaming of governing board meetings				✓	✓					✓
5.	Public "town hall" meetings	✓				✓	✓	✓			
6.	Presentations on the Government Access Channel	✓			✓	✓		✓	✓		✓
7.	Presentations to civic clubs				✓	✓			✓		✓
8.	Presentations to Chamber of Commerce	✓			✓	✓	✓		✓		
9.	Citizen / Stakeholder Advisory Groups	✓				✓			✓		
10.	Press releases	✓			✓	✓	✓		✓		
11.	Social media (Facebook, Twitter, LinkedIn)	✓			✓	✓	✓				✓
12.	Email lists										✓
13.	Plant tours	✓		✓		✓		✓			
14.	Children and school educational programs	✓			✓	✓	✓	✓	✓		
15.	Call center training	✓			✓						
16.	Other community activities	✓					✓	✓	✓		✓

This information shows that the utilities that were interviewed utilize many different methods to communicate with customers, from hardcopy materials (e.g. bill inserts, newsletters, press releases, and brochures), to written electronic media (e.g., website materials and social media), to verbal methods (e.g., government access channel presentations and “town hall” meetings).

Even though the utilities that were interviewed used multiple avenues to convey utility rate-related information to customers, it was often reported that customers have had limited involvement in the rate adoption process and limited reaction to rate increases. Many of the utility managers that were interviewed stated that there has been limited participation by customers in public hearings and town hall meetings and customers are mostly indifferent during the rate adoption process. Several governing board members also responded that they received little reaction from implementing smaller, periodic rate increases. When asked about the reason for the limited participation of customers in the rate adoption process, utility managers and governing board members responded with various potential reasons, including general apathy, the affordability of water bills, and utility credibility and trustworthiness, as the example statements indicate below:

- Customers are neutral about the rate adoption process until their bills go up.
- Customers feel helpless and have no power. The utility can do what they want.
- There is not a lot of push back from customers because water is very affordable.
- Customers are happy and trusting of the utility.
- The utility is viewed as credible and the level of trust with the utility is high.

- The utility should ask, does "no customer response" mean support? Or does it just mean that their frustration is building up? Does it mean that the utility is "dangerously comfortable?"

In some cases, the perceived customer satisfaction with the utility was supported by the results of periodic customer surveys. In other cases, it was based on comments at public meetings and direct correspondence with customers. As other comments indicate, some of the utilities interviewed thought that there was general customer apathy until the rate decision directly affects them personally in terms of their utility bill increasing.

Governing Board Member Influencing Factors and Reasons for its Rate Decisions

As discussed above, for the majority of the utilities that were interviewed, rates were increased annually or periodically, and the magnitude of the periodic rate increases were modest (i.e. annual rate increases were below 12% and most were single-digit rate increases). Governing Board members that were interviewed identified numerous reasons for supporting the adopted rate increases. Of the many reasons that were mentioned, maintaining financial condition to protect the bond rating, ensuring adequate water supplies, satisfying the general needs of the community, leaving a positive legacy for the next generation, and an established level of trust with utility staff were the reasons that were most often mentioned. A summary of the reasons board members provided for supporting the rate increases is provided in Table 5.7.

Table 5.7
Board members reasons for supporting rate increases

		Utility Interviewed									
	Description	1	2	3	4	5	6	7	8	9	10
1.	Important for protecting bond rating				✓	✓		✓	✓	✓	✓
2.	Satisfies need to replace aging infrastructure							✓		✓	
3.	Helps ensure aequate water supply				✓				✓	✓	✓
4.	Helps meet utility needs of the community	✓		✓	✓	✓	✓		✓	✓	✓
5.	Supports economic development							✓			
6.	Leaves a positive legacy for the next generation							✓	✓	✓	✓
7.	Rate plan was well thought out and investigated						✓		✓	✓	
8.	Trust in the utility				✓	✓	✓		✓	✓	✓
9.	Postive state of the current economy					✓			✓	✓	✓
10.	Level of customer service and satisfaction				✓						✓
11.	Magnitude of the rate increase					✓		✓		✓	
12.	Level of impact on customers					✓		✓		✓	

Lessons Learned by Utility Management Staff and Governing Board Members

The interviews with utility management and governing board members revealed several key lessons learned regarding communicating about rates that were commonly mentioned by the utilities that were interviewed, including:

1. Focus on the need for the rate increase
2. Relate the need to customer values, such as the resiliency of the system
3. Focus on customer service
4. Focus on community involvement and visibility

5. Have frequent utility communications with the governing board
6. Build trust and confidence in the utility
7. Understand how governance structure can be a factor in rate case success
8. Build strong relationships with governing board members

Each of these is described below.

Focus on the Need for the Rate Increase

Many of the utility management staff interviewed stressed the importance of focusing on the need for the rate increase, rather than the rate increase itself. When governing board members and customers understand the need for the rate increase, and the benefits that addressing this need brings, the rate adoption process is more successful as indicated by the comments below:

- Focus on educating the customers and the board about the capital projects and the value of those projects first.
- The utility has a history of major public outreach in advance of a significant issue or major capital expenditure that explains the nature of the project, why it is needed, and what it will cost. This is done well in advance of the rate request.
- Do not focus too much on the rate increase, rather focus on the need and benefits to the customer of the capital improvements that are driving the rates.
- Approval for rate increases due to regulatory driven projects is easier because they are needs driven.
- Focus on the needs and how you can serve the customer. When governing board members and customers own the decision regarding the need or the driver for the improvements, it's easier to sell the rate increase.
- When it is capital plan driven, we have the concept for a long time and talk about it with governing board members and customers, rather than surprise them.
- The capital need has been sold to the board. As such, this has sold the rate program.
- Both community and board have been supportive of the utility because of the customer understanding of the water resource needs of the community.
- Helping others understand the level of fixed costs, including debt payments, has helped build support for rate increases as conservation and economic issues reduce demand.

Similar to the utility management staff members that were interviewed, governing board members that were interviewed echoed the importance of focusing on the need for the rate increase, rather than the rate increase itself. Several of the governing board members explained that justifying the need for the increase was the most important factor in rate case success. Governing board members also explained that how this information is conveyed is also important as seen in the comments below:

- The utility needs to tell a story, don't just show a list of columns and charts. Very seldom do they tell the story of how we need to develop the system. They only tell the story when they need money.
- Presentations should be about the premise and foundations behind the rate increase, not the analytics.

- I want to know how the rate is tied back to our strategy of being in front of growth, how it is not just reactive or a politically correct response.
- The education piece has made our program successful.
- Include your accomplishments, not just your needs, when telling your story.

Focus on the Value and Resiliency of the System

Another important lesson for rate communications from the utility manager's perspective is to focus rate communications around the value of the service that is provided and the resiliency and confidence that can be obtained by investing in the system. The importance of focusing on the value and resiliency of the system was also conveyed by governing board members. Several board members explained that they felt a strong obligation to build and maintain a resilient system that will serve the generations to come. This desire to leave a good legacy for future generations was a common theme for governing board members that supported rate increases. Board members stated that utility staff could focus more of their communication to the board and customers about the need for rate adjustments on the value that the system brings, and how the capital plan will help improve the resiliency of the system over time, as the comments below convey:

- Focus on the value of water. Customers do not believe that water is underpriced.
- Focus on resiliency and the robustness of the system, and the benefits that it brings to customers.
- Maintain a positive image at all times. Educating kids has built up a general feeling that the utility is doing a good job and that water is affordable.
- Customers know how important water is in this area, and this makes rate communication and adoption easier.

Make Communication a Continuous and Consistent Process

Many of the utility managers stressed the importance of continuous and consistent communication with governing board members and customers of the system. This level of communication helps to educate stakeholders about the issues driving the need for the rate increase and helps the stakeholders buy-in and take ownership of the needs and challenges. Some comments from the utility managers regarding the importance of constant communication are provided in comments below:

- Customer communication is a constant process. It does not just occur at the rate setting process.
- Have consistent and constant communication. Talk about issues and challenges.
- There are no quick wins. It's about grinding over and over.
- If we do a good job of communication with the board throughout the year, there are no big surprises by the time staff get to the board budget meetings.
- The key is to have the board hear the information repeatedly throughout the year.
- Our Board almost always approves our rate increase because our ongoing discussions have been built on trust.

Many of the governing board members also conveyed in the interviews that it was important for the utility to communicate with stakeholders, including governing board members

and customers, on a frequent basis. Examples of some of the statements made by governing board members about the importance of frequent communication are provided in the following comments:

- Talk to as many people as you can about the utility.
- A huge factor in the success was the ability of the community to understand the message. We effectively communicated the challenges of living in an arid environment.
- Customers get upset when no one explains the reasons for the rate increase or when things are not explained to them.
- Don't come to me and tell me why you need money today before the rate vote. That is too short an amount of time to understand a complex subject, and certainly not enough time to change beliefs and have an impact.
- The utility needs to be able to ask the headline questions, get involved in the media quickly, focus a spotlight on the utility, and raise awareness of the issues.
- Staff does a good job of providing the right information. We are constantly educated as we go along.
- Attention spans are short. The best rate case is made over time.
- Our general manager talks about rates, infrastructure and CIP needs all the time – there are no surprises when it comes to rate requests.

Focus on Customer Service

A focus on customer service and positive impact on the success of the rate adoption process was evident from the utility manager interviews. Several of the utilities that were interviewed reported that having a track record of good customer service and service quality helped considerably during the rate adoption process as shown in the comments below:

- Positive customer attitudes regarding good customer service makes raising rates easier.
- Customer attitudes are important at all times, not just during the rate adoption process.
- Customer service and response to customers is important.
- Our entire organization is customer focused. We treat customers as individuals and are caring about their issues, which reduces resistance to city initiatives.
- We are there for the customers so that when we need something from them, they are there for the utility in the same way that we were there for them.
- Customers first – service and quality.
- People in the field are good to our customers and work hard to service customers because it is the right thing to do. This helps tremendously.

Similar to the feedback received from the utility managers that were interviewed, governing board members that were interviewed also conveyed the importance on focusing on customer service for rate case success as indicated below:

- Customer service is very important and little things contribute to good will. Keep the message to the customer on what you want it to be – quality service, response to system needs. Keep the message off of rate increases.

- Our culture of customer service results in confidence by the customers. This is part of how we do business.
- My view of the utility was higher after reviewing the customer survey results, and it improved my trust in the utility.
- Utility reputation is good with the public because they go overboard to serve customers and the public.

Build Trust and Confidence in the Utility

Each of the prior lessons learned helps to build trust and confidence in the utility. This trust in the utility and confidence building was conveyed consistently by the utility managers and governing board members as being highly important in the rate adoption process. The utility managers that were interviewed conveyed many statements regarding the importance of trust building, as provided in the comments below:

- Transparency and trust with the board and the public advocate is important.
- Trust is big in rate negotiations. Companies should discuss what they really need from a rate case with the Public Advocate.
- Image in the community is important. The utility should be proactive and have confidence to do what is right.
- We keep the community pressure down. When we do this, there is trust when we go for a rate increase.
- Do what you said you were going to do. This builds trust and confidence throughout the City, and allows us to raise rates without push back.
- Building customer confidence and trust is a key issue and we have worked hard in the service provided, and in our appearance in the community. Public confidence is part of the rate strategy because it demonstrates value.
- Customers have a high level of trust with the utility. They have seen and experienced the reliability of service, and then when they see how we actually manage and how we deal with problems, that reinforces the trust.
- Don't forget to include your mistakes when telling your story. They help build trust.
- We lost community trust when we made mistakes in our work around desalination. Getting approvals for rate increases was really hard during this time. Now that we are back to begin a trusted community member rate approvals are once again fairly routine.

The majority of governing board members also echoed the need to build trust and confidence in the utility to improve rate case success, as the following statements made by governing board members demonstrate below:

- Rate approval success starts with having a good board and a credible utility.
- There is no magic pill. Citizen confidence takes time.
- Customers go along with the rate increases because we have delivered what we said we would deliver, and there is trust in the utility.
- Staff doesn't just tell us what we want to hear, but they also give us the negative. This instills trust because they are not trying to hide something. Staff should not be scared of backlash from Council. Tell them like it is, and give us the facts.

- We have a high degree of confidence in utility staff. We have the best staff in the country. If we have questions, they are there.
- We need to make rate information more palatable and understandable by the public at large. This will instill trust.
- Customers, specifically commercial and industrial, are pleased with the adequate water and overall service. Because of that, trust in the utility is high.
- There is a high level of trust and confidence between staff and the governing board.
- The governing board has immense trust in the organization; staff of the utility.
- Trust is earned many ways. One important way is to be prepared and responsive in times of emergency. Many times, this will be the best chance that the utility has to capture the public and council's attention.

Focus on Community Involvement and Visibility

Another way a utility can build trust with its governing board and its customers is to be active and visible in the community. This community involvement could include open houses, participation in community educational programs, and participation in local community events, to name a few. A sampling of the statements made by utility managers and governing board members during interviews regarding community involvement and visibility is provided below:

- It is important to be visible in the community regularly.
- We are engaged in public outreach to show the community that we are here for the long-term and are invested in the community. However, the goodwill from public outreach activities is incredibly helpful, with the indirect benefit of customer rate increase support.
- Given the small size of the community, we have direct interaction and communication with the community frequency.
- Educating young people has been critical to building trust

Governance Structure as a Factor in Ongoing Rate Case Success

Utility managers that were interviewed from the utilities that were independent from a city/county form of government generally thought that their governance structure played a significant role in the acceptance by their board of rate increase proposals. They explained that with a separate, independent governance structure, it was easier to adopt rate increases because the process was less political and there was more opportunities to educate the board on the utility issues, the need for the rate increases, and the benefits that would be realized by adopting the rate increases and proceeding with the system capital improvement plan.

Governing board members from organizations that were independent from a city/county form of government, as well as those that were a part of a city/county form of government, stated that having a non-political environment was important to the rate adoption process as indicated below:

- A governance structure that is independent from the City allows the board to stay focused on water and takes the political aspects out of the rate adoption process.

- We are successful because we have had a consistent Council and we support each other, resulting in a high level of collegiality and civility.
- Politics is not the way to run a water utility. Our system takes the politics out of it.
- We are a non-political board and are able to focus on providing water to customers, and on the public and economic issues.
- Because we are a city/county type municipal utility, it adds to the distrust and concerns of customers because the utility is part of the general government. Even though it is an enterprise fund, people think that utility operations are funded out of taxes, and people have distrust of both.

Build Strong Relationships With Governing Board Members

Several governing board members stressed the importance of developing strong relationships with governing board members to help build trust with utility staff. In addition, several board members mentioned the importance of utility management having an advocate on the board that could champion the efforts to help obtain rate increase approval. Some board members felt it was easier to understand the utility issues if they were conveyed by another board member, rather than utility staff, because they can relate to other board members in a way that utility staff cannot demonstrated by comments below:

- Getting to know regulators personally is extremely important.
- The utility needs to have champions/advocates on the council to do the back work and help to get support. Find a council person that wants to own the water issues and take a lead on the discussion.
- Part of the discussions around rate increases is based on the people you are dealing with, on their credibility. It goes back to being more a personality thing. He is a very open person and he has a lot of integrity.
- It can be game-changing to cultivate a board advocate for the utility. If you have one board member that really understands the needs of the utility, they can relate to other board members in a way that staff cannot.
- Colleague to colleague communication helps because they know how we hear things.
- I know exactly how each Board member will vote well before the official rate request because I talk to them individually throughout the year.

Messages That Resonate

The utility managers and governing board members were asked in the interviews about messages that they felt were successful in helping to gain support for the rate case, and in conveying information to customers and governing board members regarding the need for the rate increase. The messages that the interviewees thought resonated the best are summarized below.

Sustainability and Reliability of Water

Sustainability and Reliability of Water was a message that was mentioned by several of the utilities that were interviewed as one that is successful in conveying the need for rate increases. Images, photos, diagrams, and messages centered around sustainability, water supply needs, and conservation were mentioned as effective supporting messages.

One effective example of using this message as part of a strategy to gain support for a long-term water supply strategy, and rate increases for its funding, is the messaging used by the EPWU. EPWU has branded the tag line "Working Together Means Water Forever" to assist with the implementation and funding (through rates) of their 50-year water plan. The tagline is a reminder to stakeholders of the water system that they can achieve a sustainable water future by working together. EPWU routinely conveys information to customers using this tag line, from social media to brochures, to a TV commercial that features an interactive drinking water fountain and people working together to make the fountain work. This message promotes water conservation, securing long-term water supplies, funding for the program, and customers' role in the process.

EPWU's Interactive Drinking Water Fountain Promoting the Message "Working Together Means Water Forever".

Figure 5.21 Example utility message about working together

Figure 5.22 Example utility brochure about working together

EPWU's website and brochures support this message by identifying six elements that are needed to have a sustainable water system (Figure 5.22).

Need for Replacement of Aging Infrastructure

Another message that was identified as being successful by some of the utility managers and governing board members that were interviewed centered around the need for funding for the replacement of aging infrastructure (Figure 5.23). For example, the Mohawk Valley Water Authority focuses its message to its board and customers regarding the need for rate increases on the age of its distribution system and the need to decrease the current asset replacement cycle, as the following statements convey:

> *"Approximately one third of our pipe is more than 100 years old, one third is 75 years old, and only one third is less than 75 years old."*

> *"We currently have a 700-year replacement cycle and need to increase our funding for system replacement."*

The Middlesex Water Company is facing similar challenges regarding the age of its water systems and the need for rehabilitation and replacement funding. The Company has branded its replacement program "RENEW" and has developed a public outreach campaign centered on this program, which includes press releases, signage, social medial, brochures and newsletters regarding the RENEW program. Company management stated in the interviews that this program was helpful in furthering customer understanding of the challenge, the need for funding, the need for rate increases to support the program, and the benefits to the customers.

> *"Our RENEW Program, a rehabilitative effort to clean and line aging water mains, helps us make a targeted investment in our water distribution infrastructure that helps ensure the continual delivery of quality water at adequate pressures to customers."*

Figure 5.23 Example brochure image describing an infrastructure renewal program

Other Messages

Other messages that were mentioned during the interviews that resonated with governing board members and customers included the following:

- When showing rate impacts, use dollar changes, not percentage changes in the bill.
- Focus on the intergenerational message, such as:
  - We do not want your children to have this problem.
  - All customers want to know is what is in it for me? What are the rate increases for? We tell them that it is for their kids and their grandkids.
  - We need to leave a good legacy.
  - "The rate increase is a vote for the community's future. Not a vote for a rate increase".
- Show the cost and value of water in comparison to other commodities, such as gas and electric.
- Demonstrate that achieving financial metrics will help maintain a high bond rating. This provides real benefits to customers in terms of cost savings.
- Counteract media stories, such as how industries read in the paper that other utilities are running out of water. Focus in messaging that shows that the utility is not running out of water because they proactively fund long-term infrastructure needs.
- Use messages that convey that "Overall, we appreciate, value, and protect."

- Explain what customers are paying for, such as to make sure water is clean and that pipes are not leaking. During one litigation case, non-revenue water was an issue and people were horrified when they found out about how much water was leaking from the pipes, and then they finally realized that water service is not free.
- We always talk about what we have done to reduce costs and become more efficient as part of any rate increase request.
- We identify and relate our rate increase to community values. Our recent survey shows that our communities top issues are affordability and environment – values vary across times and jurisdictions.

Messages That Did Not Resonate

The utility managers and governing board members that were interviewed mentioned several messages that they felt did not resonate with them or with other stakeholders. These included the following:

- Conveying rate increase in terms of the percentage increase in the bill.
- Comparing water utility service to the cost of bottled water or another commodity, because that is not what customers are paying for.
- Comparing water costs to coffee, or a customer's cable TV bill.
- Using pictures of utility workers standing around at a project site portraying inefficiency.
- Receiving less and paying more. "Less is the New More."
- Stay away from talking about base charges, focus on total costs.
- Long-winded explanations full of financial mumbo jumbo.
- Asking for rate increase for any reason during economic downturns, particularly if your community is small or impoverished.

FINDINGS FROM WORKSHOPS AND WEBINARS

Utility Management Conference 2014

In February 2014, a workshop on rate communications was held at the Utility Management Conference that was organized by the AWWA and the Water Environment Federation. The workshop participants included six panelists (five from the rate communications research team and one from El Paso Water Utilities) and a room of actively-engage participants. The focus of the workshop was to discuss communications strategies to help water utilities overcome obstacles of communicating the need for rate increases. The obstacles that were discussed at this workshop included:

- General reluctance to raise rates
- Concerns over affordability
- Building trust with governing board members and customers;
- Conveying complex information to stakeholders with various levels of understanding
- Conveying information to governing board members when there are multiple priorities and limited time

- Turnover of governing officials
- Demonstrating the consequences of decisions
- Overcoming negative media coverage and negative branding

Several strategies were discussed at the workshop to help overcome these obstacles, including the following:

- Communicate authentically. It seems simple, but communicating with boards, stakeholders, and the public doesn't require any magic tricks, just authenticity. Authentic communication is defined as relevant, truthful, fundamental, comprehensive, accessible, responsive, compassionate, and consistent.
- Partner with the media. The media can be a beneficial partner in utility communication, but it takes effort and consideration to develop and maintain the relationship. Utilities can help nurture this relationship by giving detailed context in down-times (e.g. facility tours) and by being responsive and even proactive when news hits. Also, it's important to remember that the media is a business. Buying advertising can help get your message out there while also supporting the media.
- Be relevant. Relevancy equals resonance. Typical topics of concern are affordability, utility cost efficiency, reliability, economic development, and the individual impacts of rate increases. Utilities should anticipate and proactively address these questions and others identified through engagement. Reliability is particularly important to customers. Comparisons are important to board members.
- Communicate succinctly. A message map that clearly identifies the relevant facts for an audience regarding a project can help keep communication on point and memorable. Generally speaking, messages that work contain only 27 words, take only nine seconds to recount, and address only three points. Make communication count (e.g., "Water supply reliability at our utility is at risk due to the need to upgrade the distribution system, new treatment needs, and increasing energy costs").
- Engage citizens/customers. There are a number of ways that utilities can engage citizens. The classic "water utility school program" is an important way to educate the public and build a long-term relationship with future customers. But citizen engagement can also be done much more directly through advisory committees. A representative advisory committee can be a great mechanism for listening and understanding for both the utility and its customers. Building a communication strategy based on the discussions of this committee can lend a great deal of credibility and relevancy to a rate case. Utilities should let citizens volunteer for the committee (rather than by invitation) and, as painful as it may be, utilities should recruit the biggest detractors to the committee.
- Work through stakeholders. In addition to citizens, engaging other stakeholders can help improve a utility's rate case. Although stakeholders will vary by utility, they typically include environmentalists, neighboring utilities, large industries, elected officials (even if not a member of the utility's governing board). Stakeholders can serve as a champion for a utility and its projects and can lend credibility to the utility's message.
- Consider timing. Like it or not, external schedules will play a role in how customers and board members respond to a rate adjustment request. It will be important to take a

step-back and consider the community context of a request for a water or wastewater increase. Elections are likely the most influential external event on the success of a rate case.

- Maintain on-going dialogue. The days of the "silent" water and wastewater service are behind us. A water utility governing board should not be surprised by a rate adjustment request, because they should be involved in stages of the process (planning, prioritizing, analyzing, and presenting). One method for ensuring consistent communication is through a series of small and frequent rate increases, which research shows will ultimately lead to higher cumulative increases (Hughes et al. 2014).

Rate Restructure Communications Workshop (Denver, CO - July 2014)

A "Rate Restructure Communication" workshop and was held in July 2014 in Denver, Colorado. This workshop was hosted by Denver Water. The objective of the workshop was to share lessons learned from utilities around the country concerning communication strategies that build support for rate changes. Organizations participating at this workshop included:

- Albuquerque Bernalillo County Water Authority, NM
- Austin Water Utilities (AWU), TX
- Denver Water, CO
- Eastern Municipal Water District (EMWD), CA
- Environmental Defense Fund (EDF)
- San Francisco Public Utilities Commission (SFPUC), CA

At the time of the workshop, Denver Water was engaged in a rate restructuring process. As part of developing a communication plan that builds understanding and support for their new rate structure, Denver Water wanted to learn how other utilities are using communication to build support for rate changes, and to share these insights with other utilities in the region. The Workshop brought together utilities from the western portion of the U.S. to share the communication strategies they are using as part of their rate restructuring process.

Rate Communication Themes

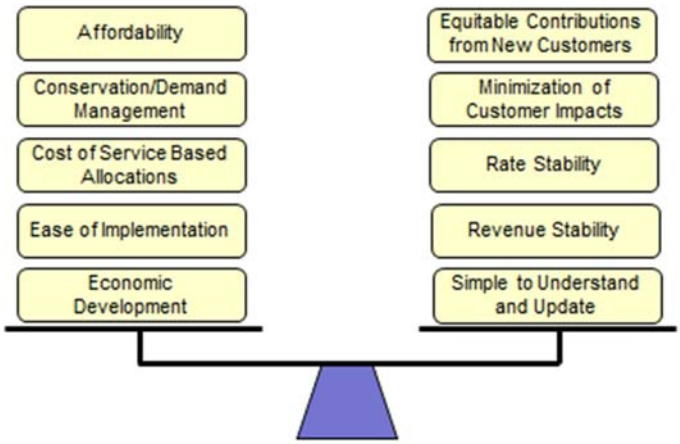
Three themes that emerged during the workshop were:

1. Focus communication on your need for rate changes, and tie the rate changes to community values (such as affordability concerns).
2. Share the Guiding Principles used to develop rates with your audiences.
3. Use good basic communication strategies: make the communication ongoing, transparent, audience specific, part of a broader ongoing dialogue with the community about what the utility is doing and why, data-based (not instinct based) regarding customer attitudes, and tie/link the strategies to community values.

Each of the themes is discussed in more detail below with examples from the Workshop presentations. These themes may not be new to many water sector professionals and utilities. However, what was revealed at the workshop through the shared utility experiences of the participants was just how sound these principles are and how effective they really can be.

Theme 1 – Focus Rate Communication on Community Values

Rate restructuring can help water utilities meet a number of objectives, including overcoming revenue shortfalls (either current or projected), decreasing water demand through a conservation signal, or limiting peak usage. However, if a utility does not specify why they are asking for a rate increase, or they do not effectively communicate the need and rationale for a rate change, then they probably won't get one. As illustrated in Figure 5.24, there are many objectives that can be met through rate increases/changes. Identifying the primary reason for the rate increase is the first step in a strong rate communication strategy.



Source: Giardina 2014.

Figure 5.24 Weighing pricing objectives

Primary risk/need-based themes identified by the workshop presenters included:

- Risk due to infrastructure failure and need for infrastructure updates
- Revenue reductions due to conservation and the economic downturn
- The need for treatment upgrades to meet regulatory requirements

For example, EMWD has an ongoing Value of Water Campaign. The EMWD campaign shares information concerning rising treatment costs, maintenance and repair/renewal of aging water infrastructure, increasing energy costs, and invasive species issues. EMWD also has a Quality of Water Campaign and an Annual Regulatory Compliance Campaign that are all designed to support the value of water.

Another example of this is from the SFPUC, who has a similar ongoing communication campaign. SFPUC shares information on the risks to bond ratings and infrastructure if water rates are not raised. This includes information on the age and reliability of their system, how SFPUC is an economic driver to the community by creating 11,000 jobs each year. They share this information using a wide range of engagement activities so that different people can engage in the way that works best for them.

Once the utility has identified the primary reason for the requested rate change, it is important to identify the tie-in to a value that is important in the community. SFPUC recently made a fundamental shift—they now talk about the value of water. They want to break away from the

idea that water is something that can be taken for granted. As part of their rates proposal, SFPUC has created a graphic on what three pennies of water delivers (Figure 5.25).

Source: SFPUC 2014.

Figure 5.25 Example graphic depicting the value of water

As another example, AWU has made a conscious choice to change the way the community thinks about water and water service; to move away from "…taking water for granted…". They are doing this by connecting water to specific community values. AWU is identifying community values by listening to what citizen Task Force and Advisory Groups are telling them. AWU shared the following suggestions for informing the public about the value water utilities provide:

- Emphasize the value of water, as well as the real cost of water (i.e., water is underpriced relative to its essential nature, and it is an expensive process to acquire, treat, and distribute water to customers).
- Put the situation in a national context—the "conservation conundrum" is not confined to any one locality, it is a problem shared across many communities.
- Emphasize local factors—for example in Austin, TX, conservation gains and the impact of drought.
- Emphasize the specific value provided by the utility—start emphasizing value early and make it a continuous effort/message.

AWU also found, by conducting strategic conversations with local groups and opinion shapers, that their community is very concerned about affordability, and, although seldom expressed, has support for their public water utility. This value of affordability was addressed by several of the presenting entities. EMWD shared how they are addressing affordability issues.

They have developed a budget-based water rate structure. This rate structure has a primary objective of being individualized based on indoor and landscape needs, and encourages efficient water use patterns through a sharply tiered pricing system and by rewarding efficiency and communicating the high cost of water over-use. EMWD also provides variances for households with additional occupants and special circumstances.

EMWD undertook a large communication effort beginning in May 2008 due to the significant change to a water budget-based rate structure. A required California Proposition 218 hearing was held in January 2009, and in February and March of 2009 customers began receiving shadow bills. These shadow bills included customized information about how the new rate structure would specifically affect them if the rate structure change had been implemented with that billing statement. This provided every customer with the understanding of how the new rate structure would impact them specifically. They also used newsletters, bill messages, website posts, the Proposition 218 notice, press releases, and community workshops and imprinted billing envelopes to reach people.

EMWD also developed a laptop-based, interactive water bill and bill estimator tool. They found this interactive tool was one of the most effective communication tools. They had staff with computers available during meetings and workshops so that individuals could walk through different water use scenarios. This interactive attitude with customers—let's take care of it right now—was extremely well received by the public.

Albuquerque also provides a low income credit program. The program provides a credit on the current bill for qualifying low income residents. Residents need to renew each year, and the credit is applied monthly.

Theme 2 – Share Rate-Related Guiding Principles

Many of the workshop presenters emphasized the importance of identifying and sharing the principles that guide their rate setting process. This helps to ensure that the audience understands the basic values that a utility brings to the rate process. Rate changes can make people anxious and worried. Communication research indicates that when people are worried or anxious they need to make an emotional connection before they can move on and focus on the *substance* of an issue. Guiding principles include making an emotional connection to the audience. Examples of guiding principles are provided below.

Denver Water identified the following principles that provide a plain language guide that they intend to share with the public as part of their upcoming rate restructuring process:

- Create a pricing structure that is fair, equitable, and easy to understand.
- Create a pricing structure that is as low as good service will permit.
- Use pricing that is based on the cost to provide service for the water used (cost of service).
- Support a financially strong and stable organization that can ensure its customers have reliable, high-quality water now and in the future.
- Promote opportunities for customers to benefit in the wise use of water through continued conservation and efficiencies.

EMWD judged the success of their rate structure outreach using these guiding factors:

- Fairness and equitable - allowed a rate structure with customer buy-in

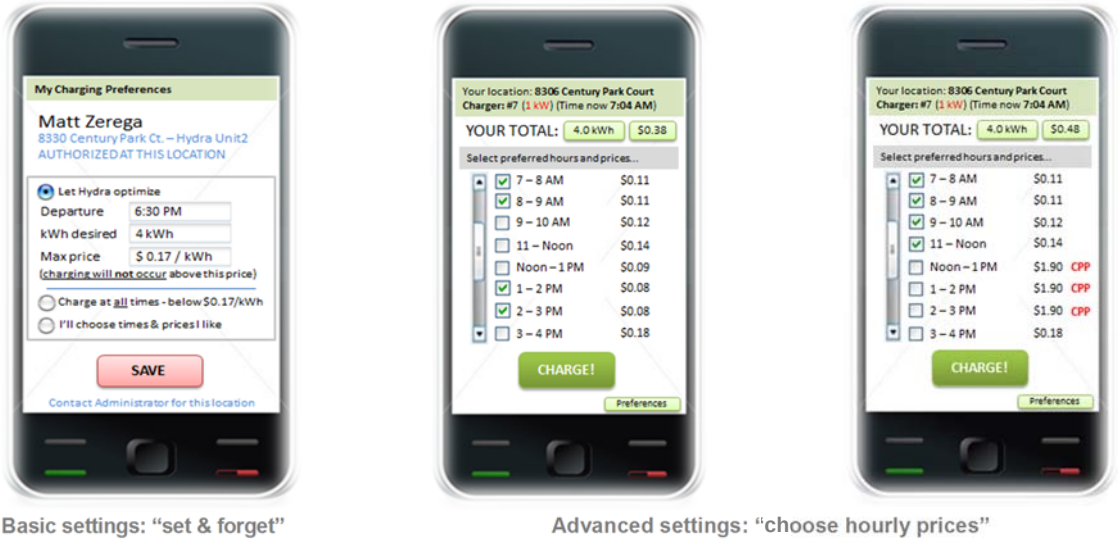
- Intuitive and interactive - gave customers an opportunity to make adjustments based on personal information
- Increases awareness of water use - resulted in conservation and revenue neutrality
- Open communication – allowed two-way dialogue with customers

Albuquerque, NM worked with a wide range of stakeholders in a variety of forums to develop the following statement of community goals for their rate restructure:

- A rate structure that can be easily implemented
- Cost-of-service principles should be followed
- Economic impact of a rate structure on customers shall be analyzed
- The rate structure should help achieve the community's water conservation goals
- Financial integrity of the systems must be maintained

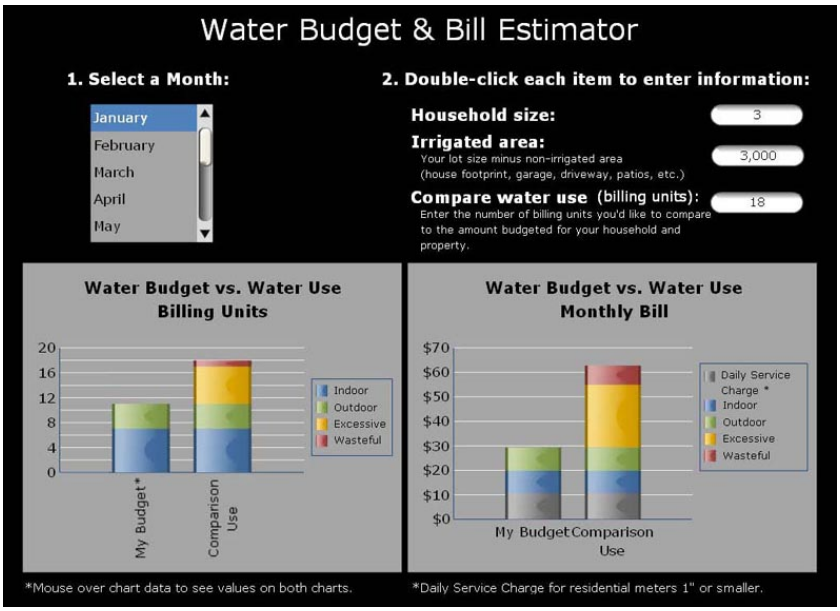
A presentation delivered at the workshop by the EDF compared electricity and water tariff designs and demonstrated that many of the design principles are the same for both water and electric utility providers. For example, the conservation signal can result in the utility not bringing in the revenue needed. One of the responses of the electric industry has been to bring in dynamic electric rate structuring. A dynamic water rate system provides the best bet for the least-cost equitable solution while empowering customers and enabling them to set-it-forget-it. An example of how electric utilities can empower users to use energy at least-cost times through a smart phone app is shown in Figure 5.26. However, this approach also requires customer segmentation and targeting and precise metering.

EMWD also shared how they are embracing individualized rate structures. They developed a communication tool (Figure 5.27) that allowed staff to walk a customer through different water use scenarios in real time. They found it to be an extremely effective communication tool; ahat build support for the proposrc rate structure.



Source: Fine 2014.

Figure 5.26 Example of empowering individuals to lower their electric bill with a phone app



Source: Walsh 2014.

Figure 5.27 Example water budget and bill estimator tool

Theme 3 – Use Good, Basic Communication Strategies

Many of the presenters discussed the need to apply good basic communication strategies to rate communications. These included making the communication ongoing, transparent, audience specific, data-based not instinct-based, and tied to community values. Each aspect is discussed in more detail below.

Communication is an Ongoing Activity

One of the primary messages shared by all the presenters was the idea that if you communicate with your audiences all the time—they know who you are, trust you, and will largely support well designed and necessary rate increases. Several agencies shared their ongoing outreach strategies.

Denver Water provided the following suggestions for ongoing outreach strategies:

- Share rate 'lessons learned' in local workshops.
- Make sure your political outreach is timely in terms of elections, length of offices held, etc.
- Find out what your customers' concerns are regarding rates through surveys.
- Engage key influencers (i.e., those individuals that influence others, like religious leaders, homeowner association presidents, etc.)
- Hold focus groups to identify the concerns of specific customer groups.
- Coordinate media relations social media and communication materials—make media outreach a focused strategy.

AWU suggests the following approach for developing a long-term communication strategy:

- Identify and communicate with opinion shapers.
- Communicate with as wide a swath of the general public as possible.
- Conduct-one-on-one conversations.
- Present to community groups.
- Have a consistent theme, but tailor the message to each audience's specific issues of concern.

Communication Needs to be Audience-Based

As part of developing ongoing communications, it is vital to understand the messaging needs by audience group. As part of the discussion on how to work with specific audience groups several suggestions arose, including:

- Ask people what is important to them—use focus groups and surveys.
- Go where people already are going (use existing meetings and venues, such as regularly scheduled HOA meetings, rather than set up a new meeting or venue).
- Make sure people feel heard.
- Ensure you have timely political outreach.
- Engage key influencers.
- Coordinate with the media.

Albuquerque used focus groups, Customer Advisory Groups, an Audit committee, town hall meetings, public meetings, website, a biennial customer opinion survey and effective utility management strategies to communicate with stakeholders.

The three most frequently identified audience groups regarding rate communication include internal utility staff members, decision makers (including Governing Boards and political groups) and customers. Several speakers addressed specific ideas for communicating with each of these groups.

Develop and Work Toward Specific Communication Objectives for Internal Staff

The presenters at this workshop agreed that it was important to start the rate communication process with internal staff. As such, there are two questions that should be answered when working with internal audiences: (1) Do you need a rate increase? and (2) Can employees explain why you are asking for a rate increase?

The first question speaks to the need for transparency. In addition, it is vital that everyone understand that the budget has been scrutinized before asking for a rate increase. Providing answers to the second question helps ensure that every internal area (such as finance, billing, customer service, etc.) has buy-in and understanding. It is important to help employees understand the need for a rate change and to ensure they are able to answer question from "friends and family." Ask them, as employees, what important questions they may have difficulty answering. For example, after drought-related water use restrictions, many customers may ask "why are you using rate increases to punish us for conserving?" It is important that internal staff be able to provide a

cogent, consistent and accurate response to such questions. It also is important to reach out and ask and listen to what information that task forces and advisory groups may need.

Identify and Develop Specific Communications for Elected Officials

Elected officials often have a short decision or planning timeframe as they may not plan to be around for the long haul. So it is important to give them the information and data they need to provide themselves with cover and perhaps more appropriately, information and answers to make sure they are addressing their constituents' concerns. They are more likely to be supportive if this information is provided.

Use data to identify specific communication ideas for customers

Customers want the message to be "all about me." Table 5.8 illustrates how sometimes the customer and the utility can have different expectations; these differences can in some instances be categorized as the art and science of ratemaking. Customers also want to understand the link between what they pay and the service they receive; this was previously referred to as the cost of service. It helps to first tell them you are operating as efficiently as possible and to also talk about your guiding principles.

Table 5.8
Example rate structure expectations

Utility	Customer
• Equitable	• Equitable
• Effective	• Reasonable
• Generates required revenue	• Clear and understandable
• Encourages efficient use	• Consistent
• Clear and understandable	• Information Oriented
• Adaptable when necessary	• "All about Me"

Source: Giardina-Ash 2012.

Denver Water used a residential customer survey to identify customer needs—it is important to use data to identify messaging needs—do not rely upon your gut instinct!

Develop and repeat a consistent theme

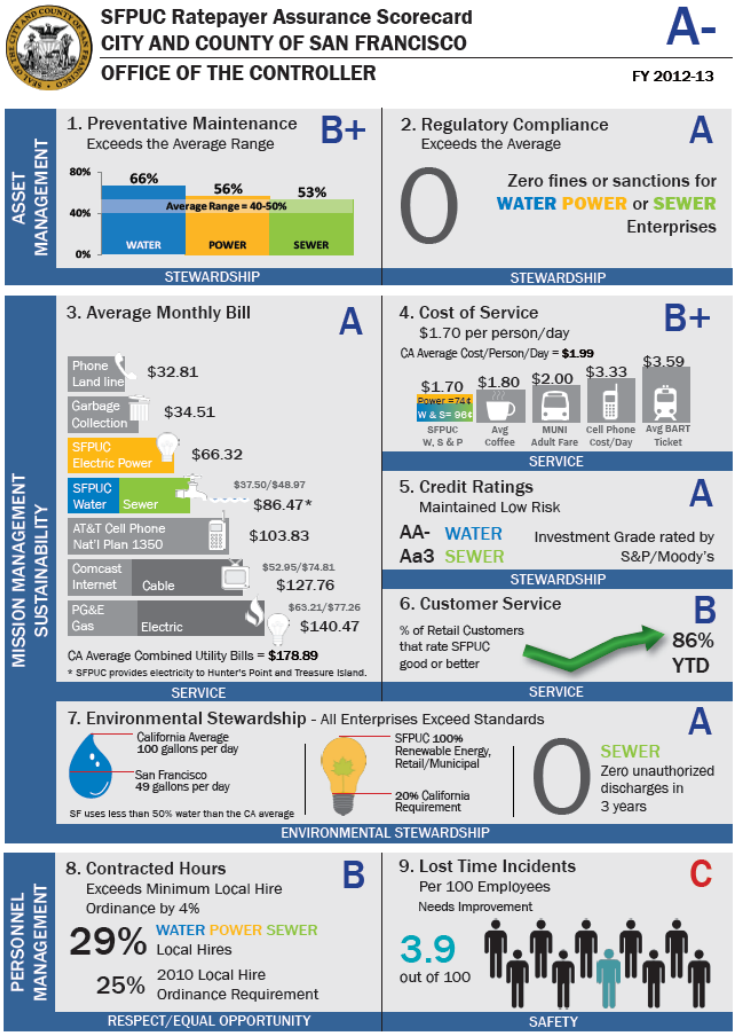
People have the capacity to hear one message at a time—so make sure every time they hear a message about a rate increase that it covers the same theme. When developing the "one theme" make sure it is tailored to the values of the specific audience and how the changes in utility rates are reflected. For example, Albuquerque had a conservation theme for many years. They are

now changing that message to the need for infrastructure improvements. AWU is moving to the same kind of theme. *Austin has major infrastructure needs in order to serve one of America's fastest growing cities.*

Communication requires transparency

This was perhaps one of the most interesting ideas presented at the workshop, that is, go out on the edge with being transparent. Transparency is scary, but it builds trust, and trust is the foundation of receiving a rate increase. SFPUC uses a Ratepayer Assurance Scorecard to help build transparency. They have asked a separate City agency (Office of the Controller) to score them. This "independent audit" and associated "report card" idea was one that really resonated with the workshop audience. The SFPUC report card is shown in Figure 5.28.

AWU also feels that transparency is vital. They post detailed information online—telling everyone to examine their expenses. AWU also suggested providing private briefings of expenses to the press.



Source: Rydstrom and Hom 2013.

Figure 5.28 Example SFPUC rate payer assurance scorecard

Webinars With Utility Managers (Utility Advisory Group)

A webinar was held in February 10, 2015 with a Utility Advisory Group, which consists of representatives from EPCOR Water Services Inc., National Association of Water Companies, National Rural Water Association, New York Rural Water Association, and the Environmental Finance Center Network. Utilities from around the country were also invited and participated in the webinar, including Metropolitan Water District of Southern California, Philadelphia Water Department, Prince William County Service Authority, Sanitation District No. 1 of Northern Kentucky, and the San Antonio Water System. The purpose was to facilitate a roundtable discussion with a diverse group of utility representatives to solicit feedback regarding lessons learned from rate communication efforts, messages that resonate, and tools that would help with the rate communications process.

At the webinar, members of the research team described the project, discussed the key themes that were identified from the literature review, workshops, interviews, and survey results. The participants generally agreed with the key themes, which included the following:

- Focusing on the need for the rate increase
- Focusing on the value and resiliency of the system, linked to risk and consequences
- Focusing on customer service
- Make communications continuous and consistent
- Build trust and confidence in the utility
- Focus on community involvement and visibility
- Build strong relationships with the board

One participant conveyed the need for the rate increase by tying the need back to the mission statement of the utility, which resonated with the board. Another participant stressed the importance of focusing on customer service, completing customer surveys, and presenting results of such surveys to the board. A participant conveyed that the most important information to share with the board are the efforts the utility has made in becoming more cost efficient. Another participant stressed the importance of a slow and steady strategy to gain credibility and trust with the board by being transparent about the needs of the utility. Several participants discussed the importance of board and public education and ongoing communication. For one participant, educational sessions were held with board members about a month before the rate increase request. Another mentioned an educational program that was held with other local utilities involving orientation and educational sessions for any elected officials within the county.

In general, the participants thought that visual tools, such as dashboard tools, that are used to convey important information about the need for a rate increase would be valuable to the rate adoption process. However, one participant felt that providing the right level of detail to the governing board is a challenge because some board members prefer detailed information and others just high level information.

Webinars With Utility Governing Board Members (Governmental Advisory Group)

A webinar was also held on February 11, 2015 with select governing board members from the City of Delaware, Ohio. At this workshop, members of the research team described the project, discussed the key themes that were identified from the literature review, workshops, interviews, and survey results. One of the themes that resonated with one participant was the importance of

conveying the need for the rate increase. In this case, the need for replacement of aging plant infrastructure was conveyed with an EPA video that helped frame the issue and describe the needs for similar reinvestment that is prevalent in the industry. The participant described the importance of using pictures and other visuals to convey the need for the rate increase.

Another important factor in rate case approval was the development of trust between the governing board, the utility, and the public. A participant described an educational program that was offered to anyone in the city to help the public understand the utility and city issues better. The program was called "business academy" and involved educational sessions held one night per week for 6 months.

DISCUSSION AND LESSONS LEARNED

Factors Critical to Successful Rate Case Adoption

The rate case experiences gathered from the survey responses, interviews, workshops, and webinars indicated several factors that are critical and foundational to successful rate case communications as summarized below:

1. Maintaining a high level of customer service throughout the organization
2. Sustaining a high level of involvement and visibility within the community
3. Developing and maintaining a high level of trust between utility staff and governing board members
4. Maintaining a high frequency of communication with board members and the public – communications to these groups should be continuous and consistent
5. Using effective communication methods, such as:

    - Relating the rate increase need to customer values, such as affordability or the resiliency of the system
    - Communicating authentically, defined as relevant, truthful, fundamental, comprehensive, accessible, responsive, compassionate, and consistent.
    - Communicating succinctly
    - Focusing the message on what is important to each audience
    - Developing and repeating a consistent theme
    - Being open and transparent with rate communications

6. Conveying the right types of information to governing board members:

    - Matching the level of detail to governing board members preferences
    - Sharing the guiding principles used to develop rates
    - Focusing on the need for the rate increase, such as the physical condition of assets
    - Providing capital information that is aligned with a long-term plan

Factors That Inhibit Rate Case Adoption

The rate case experiences gathered from the survey responses, interviews, workshops, and webinars indicated that the factors that inhibit rate case adoption include the following:

- Not following through on commitments and responsibilities
- Not conveying a sense of openness and transparency
- Not communicating regularly with governing board members
- Ignoring the importance of relationship building and trust building between utility staff and governing board members
- Not focusing enough on the need for the rate increases
- Providing too much or not enough information to governing board members
- Not being consistent in the messages and themes used to communicate with stakeholders

CHAPTER 6
CONCLUSIONS, RECOMMENDATIONS, AND FUTURE RESEARCH NEEDS

CONCLUSIONS

Water utilities in the U.S. face a significant financial challenge due to increases in regulatory requirements, a nationwide need to repair and replace aging water systems, a decrease in water sales due to conservation, and economic cycles that limit the ability and willingness to raise rates during economic downturns. Water industry professionals have identified constraints on financial resources as a high-priority future concern. Even with the pressing financial needs outlined above, many water utilities have difficulty raising rates. Consumer perception of the value of water, the need for utility system improvements, affordability issues, and a variety of other factors make it difficult for water utilities to increase water rates.

An examination of the challenges utilities face as part of the rate-setting process revealed that many challenges can clearly be identified as communication issues regarding the value of water, the need for infrastructure reinvestment, the need for rate adjustments, and the benefits that the investment can bring to the service area and community. Survey results from 1,408 utility managers and 329 governing board members showed that there is a diversity of approaches used across the country to prepare and present rate adjustment requests to governing boards for approval, such as presenting single-year and multi-year rate requests, presenting the request as part of, or separate from the budget process. The results also showed that water rate increases recommended by utility managers to their governing boards varied greatly, but most rate requests were for rate increases in the range of one to 12%. Furthermore, the majority of the governing boards that were surveyed (92%) approved the rate modifications that were requested of them. However, approximately 45% of utility managers indicated that the rate increases requested and approved would fail to cover the capital needs of the system. This was a significant and concerning finding that may have been the case because some utilities propose rate increases that they think the governing board will approve, rather than what they think they actually need. Further, it indicates the prevalence of a potential lack of effective communication between utility managers and governing board members about the need for adequate rate increases.

These finding suggest that building trust in the utility is imperative in securing necessary rate increases for investment in utility systems. Building trust in the utility can be achieved by improving relationships with governing board members and customers, following through on commitments, conducting business in an open and transparent manner, focusing on customer service, and being visible and active in the community. This idea is further supported by the survey results which indicated that utilities that are overseen by more experienced staff members were more likely to ask for and receive approval for financially sufficient rates, indicating that more experienced staff members may have deeper relationships with governing board members. In addition, responses from utility managers and governing board members highlighted the importance of personal relationships, credibility, and integrity to building trust.

The research results also revealed several strategies, in addition to- or in support of, trust building, that were employed by utilities to establish a solid foundation for rate adoption success. These included focusing the entire utility organization on customer service to improve utility

image, customer attitudes, and good will toward the utility. In addition, following through on commitments to the governing board and the community in terms of levels of service, being proactive in addressing utility issues, open and transparent in communications with governing board members and the public, and being visible and involved in the community were also cited as important strategies. These strategies are all long-term foundational strategies that help build trust in the utility, help make adopting rate increases a relatively non-issue, and help achieve rate adoption support.

Several utilities that were involved in the research stressed the importance of a credible rate case and utility transparency to the success of a rate case. Trust is the foundation for rate adoption success, and openness can help to build that trust. For example, the SFPUC uses a Ratepayer Assurance Scorecard and has a separate City agency (the Office of the Controller) complete the scoring independently, which was reported to help build credibility and transparency of the utility. This "independent audit" and associated "report card" idea was one that resonated with rate communication workshop participants.

The research results also indicated that utility board members' make their rate adoption decisions based most significantly on: (1) the long-term impact to the financial condition of the utility; (2) the physical condition of the utility; (3) compliance with regulations; (4) immediate impact to the financial condition of the utility; and (5) the long term affordability of water for residential customers. Furthermore, survey responses suggested that utility managers may underestimate the value that governing boards place on linking rate adjustments to specific long term financial needs, since utility management often placed a lower value on finance and infrastructure information than their governing board members did. Therefore, providing this type of information to governing board members can help satisfy their information needs when making rate adoption decisions.

According to the interview results, the specific types of information that board members preferred most in making their rate adoption decisions, included the following:

- List of drivers for the rate increases, including prioritized CIP information, a connection with how it fits with the long-term utility strategy, results in meeting regulatory requirements, and addressing system condition issues
- Financial information, including a summary of future financial projections, rating agency opinions, and supporting credit rating metrics
- Utility accomplishments, including those related to the environment, sustainability, water quality and regulatory compliance, and information on how the utility has saved money and has become more efficient
- Rate adjustment information and impacts to the rate payer, including rate study information showing that rates are effective and fair, and affordability information, such as cost as a percent of MHI and number of shut-offs
- Comparison of water rates and typical customer bills with other utilities (although governing board members wanted this type of information it only resonated when provided with the other information linking the need with benefit/consequence)
- Results from customer satisfaction surveys and other customer feedback regarding customer satisfaction

Presenting this information under the umbrella of an overall theme or message was also shown to be important to rate adoption success. Many of the utility management staff interviewed

stressed the importance of focusing on the need for the rate increase, rather than the dollar amount of rate increase. When governing board members and customers understand the need for the rate increase, and the benefits that addressing this need brings, the rate adoption process is more successful. Primary need-based themes and messages identified during the research included: (1) risk due to infrastructure failure and need for infrastructure updates; (2) revenue reductions due to conservation and the most recent economic downturn; and (3) the need for treatment upgrades to meet regulatory requirements.

The importance of focusing on the value and resiliency of the system and the need to address aging infrastructure was also conveyed by governing board members as an important message. There was generally a strong sense of obligation by board members to build and maintain a resilient system that will serve the generations to come, as well as a desire to leave a good legacy for future generations. This finding highlights the importance of focusing more of the communication to the governing board and customers about the need for rate adjustments, the value that the system brings to the community, and how the capital plan will help improve the resiliency of the system over time, than focusing on the actual rate increase itself. This further highlights the importance of continuous and consistent communications with stakeholders.

Continuous and consistent communication with governing board members and customers of the system was also highlighted during the research as a successful strategy. This level of communication and its consistency helps to educate stakeholders about the issues driving the need for the rate increase and helps stakeholders buy-in and take ownership of the needs and challenges. Furthermore, the results of the survey demonstrated that the success in rate case approval increased the more the public was engaged in the rate adoption process. The results indicated that utilities that were successful in adopting relatively high rate increases generally had more public engagement in the rate adoption process.

How the communication is conveyed was found to be nearly as important as what information is conveyed. Communication guiding principles should be used help the presenter make an emotional connection to the audience. These guiding principles include: (1) utilities require stakeholders to view them as credible, salient, and legitimate to perform effectively; and (2) utilities need to fully understand the reliability-related requirements and concerns of their customers. Identifying and sharing the principles that guide the rate setting process is also important, as it helps to ensure that the audience understands the basic values that a utility brings to the rate process.

The research team identified the following four key communication action areas that can help increase board member support for rate changes:

A. Identify the need for the rate change and the consequences to the utility if the board does not approve the rate change
B. Understand and prepare for the special communication needs of Governing Board members
C. Connect the need for the rate change with community values
D. Build trust and understanding by focusing on visibility, transparency, and community involvement

These four communication action areas reflect the importance of creating a long-term communication strategy, as well as creating short-term messages that resonate. The research indicated that neither short- nor long-term strategies alone are sufficient. Support for rate approvals requires pairing long-term, on-going communications that develop trust and understanding with

short-term communications that focus on request-specific messages. An examination of the communication action areas also reveals the need for utilities to effectively communicate directly with board members. However board members are frequently political and therefore extremely sensitive to community perceptions; therefore, to truly build board member support, utilities must also build community-wide trust in the utility and grow the community's understanding of utility challenges. With the community already in a position of support, board members will be much more likely to support rate change requests.

The six components of a communication plan that are important elements of a robust rate communication strategy include:

1. Identify the goals and objectives of specific communication.
2. Review guiding principles, which are the high level, often unarticulated set of working assumptions that people use to help make decisions, understand the working environment, and identify relative priorities.
3. Know the audience. Know what is important to the audience members that are the targets of the communication.
4. Identify project impacts (i.e., the project, idea, change that needs to be communicated).
5. Develop messages, create communication products, and consistently deliver the messages.
6. Evaluate the messages to learn from the past, refine the strategy, and improve communications in the future.

Governing board members and customers, and people in general, have the capacity to hear one message at a time. Therefore, it is important to cover the same theme every time stakeholders hear a message about a rate increase. When developing the "one theme," it is important to tailor the theme to the values of the specific audience and how the changes in utility rates are reflected. Several messages that were identified as generally being effective in gaining support for utility rate adjustments, including those that demonstrated:

- The utility's commitment to efficiency (e.g., financial needs have been reduced as much as possible by maximizing efficiency before requesting a rate increase)
- That water utilities are critical to the quality of life (and the utility is available to customers 24/7)
- That failing infrastructure can hurt economic development efforts (e.g., adequate resources are required to maintain the reliability of the system, which is essential for the success of the local economy)
- The value of reliable service justifies the cost (e.g., reliable and adequate water supplies are essential for the success of the local economy)
- A positive legacy for the next generation

Finally, the research indicated that successful rate cases are made over a long term rather than in a few days, weeks, or even months before requesting a rate change. The foundational strategies that are important for rate adoption success may take years to accomplish, but the benefits that are realized with these strategies can provide the utility with revenue needed to support the utility's capital and operating needs, and position the utility for long-term financial stability and success.

RECOMMENDATIONS

The project team developed several recommendations as a result of this research. These include:

1. Prepare a robust rate communication strategy when planning to communicate a change to utility rates.
2. Focus on the need for the rate increase, rather than the increase itself.
3. Connect the need for a rate change with a key benefit or consequence to the utility (not both!)
4. Strive for continuous and consistent communication with customers and governing board members.
5. Tie the rate case message to a community values, such as system resiliency, leaving a good legacy for the next generation, or affordability.
6. Educate governing board members to help them obtain a deep understanding of utility issues, challenges, and the need for rate adjustments.
7. Assess the level of detail each governing board members desires when it comes to rate case information, and provide that level of detail to that board members.
8. Focus on customer service, community involvement, and visibility as long-term foundational strategies for success in the rate adoption process.
9. Getting to know governing board members personally. The development of strong relationships helps to build trust and helps result in rate adoption success.
10. Build and utilize one message or theme to convey information about desired rate changes, such as a long-term reliable water source, or leaving a good legacy for the next generation.
11. Partner with the media to help improve utility communications.
12. Identify strategies for on-going engagement and dialog with customers and the public.
13. Develop and share rate-related guiding principles with governing board members and customers.
14. Follow the 10 principles of authentic communication.
15. Use message maps to help develop communications that are clear and easy to understand.

FUTURE RESEARCH NEEDS

A number of ideas were developed during the course of the project, representing opportunities to further the knowledge base of utilities. These ideas are listed below:

1. Research regarding communication with the "Next Generation;" and similarly, use of online information (billing, usage and by extension, rates) and the use of social media.
2. Research regarding the feasibility of developing an independent management or financial audit for the municipal water industry for the purposes of building utility trust and credibility.
3. Research related to the planning and implementation of a national campaign on water utility challenges and the relatively low cost of municipal water service would be beneficial to furthering the effectiveness of water rate communications. The “One Water and Reuse” and “Desalination” campaigns helped to increase community trust and understanding of water utility rate challenges; one of the primary need findings of

this research. Perhaps a national campaign on water rates – a household bargain, could further the general understanding of water utility rates.

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ABBREVIATIONS

ACWA	Association of California Water Agencies
AWU	Austin Water Utility
AWWA	American Water Works Association
CIP	Capital Improvement Program
EDF	Environmental Defense Fund
EFC	Environmental Finance Center
EPA	U.S. Environmental Protection Agency
EPWU	El Paso Water Utilities
ICMA	International City-County Managers Association
KISS	Keep It Simple Stupid
MASC	Municipal Association of South Carolina
MHI	Median Household Income
O&M	Operations and Maintenance
PIO	Public Information Officer
RCAP	Rural Community Assistance Program
SCAP	Southern California Alliance of Publicly Owned Treatment Works
SFPUC	San Francisco Public Utilities Commission
TVWD	Tualatin Valley Water Authority
U.S.	United States
WIN	Water Infrastructure Network
WRF	Water Research Foundation

Appendix A
Surveys Sent to Chief Administrative and Chief Elected Officials

ICMA Leaders at the Core of Better Communities

Chief Administrative Office/Manager Water Utility Rate Communication Survey 2014

ICMA and its partners, as part of a Water Research Foundation project, are surveying local governments to gain insights into how they communicate water utility rates increases. Your survey responses will help identify common obstacles in rate communication, as well as best practices and strategies. Please contribute to the success of this project by having the person on your staff who is responsible for recommending water rate changes to the local government governing body complete the questionnaire and return it to ICMA within two weeks. If your local government does not manage a water utility, there are only two questions to answer. We value your privacy; results will not be attributed to individuals or individual local governments. The aggregate results will be available on ICMA's website (http://icma.org) by August 2014. You may complete the survey online at **http://icma.org/WaterRateCommunicationforManagers**.

Thank you for your participation.

Robert J. O'Neill, Jr.
Executive Director, ICMA

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1. Does your local government manage and set rates for a water utility/department that charges residents in your jurisdiction for water service?

- ☐ 1. Yes (Please go to question 3 and complete rest of survey.)
- ☐ 2. No (Please answer only question 2 and return the survey to ICMA.)

2. If your local government **does not** manage and set rates for a water utility/department that charges residents in your jurisdiction for water service, please indicate how water service is provided.

- ☐ a. The majority of residents rely on private well systems for water service
- ☐ b. A private company provides water service to the majority of our residents
- ☐ c. Another government utility provides water service to the majority of our residents
- ☐ d. Other _____

(No further response is required. Please return the survey to ICMA. Thank you.)

3. What best describes your government's general process for reviewing rates in order to determine if adjustments are needed? (Select only one.)

- ☐ 1. Annual review that is part of the budget process
- ☐ 2. Annual review that is separate from the budget process (e.g., precedes/follows budget process)
- ☐ 3. Periodic review as needed
- ☐ 4. Other _____

4. About how often does the full local government governing body (as opposed to a utility-specific committee) formally meet with local government staff to hear about financial issues related to the water utility/department? (Select only one.)

☐ 1. Every one to two months ☐ 3. Every four to six months ☐ 5. Not every year
☐ 2. Every quarter ☐ 4. About once a year ☐ 6. I don't know

5. How would you rate the working relationship (e.g., confidence, trust, etc.) between the local government governing body and top level administrators and managers of the water utility/department?

1. Very good	2. Good	3. Moderate	4. Poor	5. Very poor	6. Don't know
☐	☐	☐	☐	☐	☐

6. How is information shared with the local government governing body? (Select all that apply.)

☐ a. Formal public meetings with the governing body ☐ d. Presentations to sub-committee(s)
☐ b. Individual one-on-one meetings ☐ e. Periodic retreats
☐ c. Written materials ☐ f. Other _____

7. How many members are on the local government governing board? _____ members

8. What is the current total monthly water bill (excluding sewer charges) for the average residential customer (in non-watering season, if applicable)? (Select only one.)

☐ 1. <$10.00 per month ☐ 5. $40.01 - $50.00 per month
☐ 2. $10.01 - $20.00 per month ☐ 6. >$50.00 per month
☐ 3. $20.01-$30.00 per month ☐ 7. I don't know
☐ 4. $30.01 - $40.00 per month

*The following questions ask you to focus on your water utility's/department's most recent significant water rate request/recommendation regardless of whether it was adopted. For this survey, a **significant rate request** is one that would have, if passed, increased rates for the "average" residential water customer by 4% or more.*

9. What activities did your water utility/department undertake prior to or as part of review before making the most recent rate adjustment request? (Select all that apply.)

☐ a. Internal staff analysis of costs ☐ e. Review by governing body subcommittee (e.g., finance, rates)
☐ b. Rate study performed by external consultant ☐ f. Other _____
☐ c. Comparison of rates to nearby utility rates
☐ d. Review by a citizen advisory committee

10. Who had **primary** responsibility for **presenting** the last water rate adjustment request to the local government governing body? (Select only one.)

☐ 1. City or county manager ☐ 4. Outside consultant
☐ 2. Water utility/department director ☐ 5. Utility advisory or finance committee
☐ 3. Other water utility/department staff ☐ 6. Other _____

11. Which statement best describes your most recent water rate increase request (regardless of whether it was approved)? (Select only one and provide relevant details.)

☐ 1. One recommended rate adjustment was presented to the local government governing body
a. If yes, how much of a rate adjustment was requested for the average water bill for a residential customer? _____ % (If decrease, enter as negative number.)

☐ 2. Multiple rate adjustment scenarios were presented
a. If yes, what was the range of rate adjustments for an average residential customer requested?
1. **From** _____% 2. **To** _____% (If decrease, enter as negative number.)

☐ 3. Other _____

12. In your professional opinion, which statement below best describes the water rate increase that was proposed to the local government governing body for approval? (Select only one.)

- ☐ 1. Below what was needed to maintain basic operating needs
- ☐ 2. Sufficient to address basic utility/department obligations, but not most capital needs
- ☐ 3. Provided revenues to maintain a strong fiscal condition and meet most capital needs
- ☐ 4. Beyond what is needed in coming year to help avoid another rate increase for a few years
- ☐ 5. Other _____

13. Was a rate adjustment approved for water services? ☐ 1. Yes ☐ 2. No

14. If a rate adjustment was approved, how much of a rate adjustment was approved for the average water bill of a typical residential customer? _____% (If decrease, enter as negative number.)

15. How was the public involved in the last rate adjustment request **before** the local government governing body voted? (Select all that apply.)

- ☐ a. Not at all
- ☐ b. Minimally (e.g. Meeting notes were posted on a website; open invitation to public meetings)
- ☐ c. Active outreach by the local government/utility (e.g. Flyers were mailed, press releases)
- ☐ d. Participated in regularly scheduled local government/utility meeting
- ☐ e. Participated in special meetings held regarding the rate adjustment
- ☐ f. Other _____

16. Please indicate whether the information listed below was shared with the local government governing body during the last rate adjustment request and rate how useful this information was in communicating the need for the rate adjustment to the governing body.

	Info. was not shared	Info. was shared and was very useful	Info. was shared and was somewhat useful	Info. was shared and was not useful
a. How much the "average residential bill" would change	☐	☐	☐	☐
b. How changing circumstances (operating costs, usage patterns, etc.) affect finances	☐	☐	☐	☐
c. Anticipated capital expenses	☐	☐	☐	☐
d. The financial condition of the water utility	☐	☐	☐	☐
e. The physical condition of the water utility	☐	☐	☐	☐
f. Assessment of how proposed rates compare to customers' incomes (affordability)	☐	☐	☐	☐
g. Nearby utilities' current rates or proposed rate adjustments	☐	☐	☐	☐
h. Similar-sized utilities' current or proposed rate adjustments	☐	☐	☐	☐
i. Bond covenants	☐	☐	☐	☐
j. Multiple rate scenarios	☐	☐	☐	☐
k. Projected impact of rate adjustment on customer demand	☐	☐	☐	☐
l. Previous history of local government's water rates or rate adjustments	☐	☐	☐	☐
m. Anticipated rate adjustments that may be necessary in the next few years	☐	☐	☐	☐
n. Comparison of adjustments of water rates against other services (tax rate, solid waste fees, etc.)	☐	☐	☐	☐
o. Alignment with water master plan	☐	☐	☐	☐

17. What other information was shared with the local government governing body that was very useful in its consideration of the rate adjustment?

18. How important, in your opinion, were the following issues in the local government governing board's decision concerning the rate adjustment request?

	Very important	Important	Neutral	Unimportant	Very unimportant	Don't know/NA
a. Compliance with regulations, policies, and goals (external and internal)	☐	☐	☐	☐	☐	☐
b. Customer support for a rate increase	☐	☐	☐	☐	☐	☐
c. Elected officials' ability to be re-elected or to fulfill election promises	☐	☐	☐	☐	☐	☐
d. Long-term impact to the physical condition of the utility	☐	☐	☐	☐	☐	☐
e. Long-term impact to the financial condition of the utility	☐	☐	☐	☐	☐	☐
f. Long-term affordability of water for residential customers	☐	☐	☐	☐	☐	☐
g. Long-term affordability of water for commercial and/or industrial customers	☐	☐	☐	☐	☐	☐
h. Rates charged by water utilities similar in size to your utility	☐	☐	☐	☐	☐	☐
i. Rates charged by nearby water utilities	☐	☐	☐	☐	☐	☐
j. Immediate impact to the physical condition of the utility	☐	☐	☐	☐	☐	☐
k. Immediate impact to financial condition of the utility	☐	☐	☐	☐	☐	☐
l. Immediate impact to all customer bills	☐	☐	☐	☐	☐	☐
m. Immediate impact to low-income customer bills						
n. Ability to easily explain the need for rate adjustment	☐	☐	☐	☐	☐	☐
o. Schedule for other local government taxes/charges/fees increases	☐	☐	☐	☐	☐	☐
p. Other	☐	☐	☐	☐	☐	☐

18A. If you checked "other" above, please describe: _____

19. How many years have you served in local government? _____ years
20. How many years have you worked with the current water utility/department (in any capacity)?_____years
21. What is your professional title? _____

22. Please provide the following information in case we need to contact you. This information is optional and will be kept confidential.
First Name: _____ Last Name: _____
Phone: _____ Email: _____
Please return the survey to **ICMA Survey Research, 777 N. Capitol St., NE, Suite 500, Washington, DC 20002**

ICMA Leaders at the Core of Better Communities

Chief Elected Official's Water Utility Rate Communication Survey 2014

Increasing water rates can be a difficult process for many public water utilities. ICMA and its partners, as part of a Water Research Foundation project, are surveying local governments to identify the information most important to local government Governing Bodies in considering a water rate increase and how that information is presented. Your insights and expertise will help water utilities identify common obstacles and effective best practices for communicating with their Governing Bodies about the need to change water rates.

Thank you for ensuring the success of this project by completing the questionnaire and returning it to ICMA within two weeks. You may complete the survey online at http://icma.org/WaterRateForCEO. Your confidentiality is important to us; results will not be attributed to individuals or individual local governments. Aggregate results will be available on ICMA's website (http://icma.org) by August 2014.

Thank you,

Robert J. O'Neill, Jr.
Executive Director, ICMA

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1. Does your local government manage and set rates for a water utility/department that charges residents in your jurisdiction for water service?

☐1. Yes (Please complete rest of survey.)
☐2. No (Please answer only question 2 and return the survey to ICMA.)

2. If your local government **does not** manage and set rates for a water utility/department that charges residents in your jurisdiction for water service, please indicate how water service is provided. (Select only one.)

☐1. The majority of residents rely on a private well system for water service
☐2. A private company provides water service to the majority of our residents
☐3. Another government utility provides water service to the majority of our residents
☐4. Other (Please describe.) _____
(No further response is required. Please return the survey to ICMA. Thank you.)

3. How were you involved in the most recent water rate change? (Select all that apply.)

☐ a. As a member of the local government governing body
☐ b. In developing *the request* for a rate change
☐ c. I approved the full rate adjustment as recommended with no changes
☐ d. I suggested changes to the rate adjustment request, but did not require changes
☐ e. I required changes to rate adjustment request
☐ f. I voted against the rate change recommendation

☐ g. I was not involved in the decision. (No further response is required. Please return the survey to ICMA or pass it to another elected official who was involved. Thank you.)
☐ h. In another way (Please describe.) _____

4. Do you think that your current water rates are at a level that best meets the needs of your water utility/department?

☐ 1. Yes ☐ 2. No

4A. If you **do not** think your current water rates are at a level that best meets the needs of your water utility/department, please indicate why. (Select only one.)

☐ 1. I think current rates are too high.
☐ 2. I think current rates are too low.
☐ 3. Other (Please describe.)_____

5. Do you think that your current water rates are at a level that best meets the needs of your community?

☐ 1. Yes ☐ 2. No

5A. If you do not think your current water rates are at a level that best meets the needs of your community, please indicate why. (Select only one.)

☐ 1. I think current rates are too high.
☐ 2. I think current rates are too low.
☐ 3. Other (Please describe.)_____

6. How would you rate your working relationship (e.g., confidence, trust, etc.) with top level administrators and managers of the water utility/department?

1. Very good	2. Good	3. Moderate	4. Poor	5. Very poor	6. Don't know
☐	☐	☐	☐	☐	☐

7. What is the current total monthly water bill (excluding sewer charges) for the average residential customer (in non-watering season, if applicable)? (Select only one.)

☐ 1. <$10.00 per month
☐ 2. $10.01 - $20.00 per month
☐ 3. $20.01-$30.00 per month
☐ 4. $30.01 - $40.00 per month
☐ 5. $40.01 - $50.00 per month
☐ 6. >$50.00 per month
☐ 7. I don't know

8. Who had **primary** responsibility for **presenting** the last water rate adjustment request to the local government governing body? (Select only one.)

☐ 1. City or county manager
☐ 2. Water utility/department director
☐ 3. Other water utility/department staff
☐ 4. Outside consultant
☐ 5. Utility advisory or finance committee
☐ 6. Other (Please describe.)_____

9. How was the public involved in the last rate adjustment request before the local government governing body voted? (Select all that apply.)

- ☐ a. Not at all
- ☐ b. Minimally (e.g., Meeting notes were posted on a website; open invitation to public meetings)
- ☐ c. Active outreach by the local government/utility (e.g., flyers were mailed, press releases)
- ☐ d. Participated in regularly scheduled local government/utility meeting
- ☐ e. Participated in special meetings held regarding the rate adjustment
- ☐ f. Other (Please describe.)_____

10. In your opinion, rate the extent of resident involvement in the last rate adjustment request. (Select only one.)

- ☐ 1. Insufficient: more would have helped
- ☐ 2. Sufficient and helpful to the process
- ☐ 3. Neutral: didn't help, but didn't hurt
- ☐ 4. Too much, hindered the process

11. Was a rate adjustment approved for water services? ☐ 1. Yes ☐ 2. No

11A. If a rate adjustment was approved, how much of a rate adjustment was approved for the average water bill of a typical residential customer? _____% (If decrease, enter as a negative percent.)

12. How important is each of the following factors in informing your decision to raise or not raise water rates?

	Very important	Important	Neutral	Unimportant	Very unimportant	Don't know/NA
a. Compliance with regulations, policies, and goals (external and internal)	☐	☐	☐	☐	☐	☐
b. Customer support for a rate increase	☐	☐	☐	☐	☐	☐
c. Ability to be re-elected or to fulfill election promises	☐	☐	☐	☐	☐	☐
d. Long-term impact to the physical condition of the utility	☐	☐	☐	☐	☐	☐
e. Long-term impact to the financial condition of the utility	☐	☐	☐	☐	☐	☐
f. Long-term affordability of water for residential customers	☐	☐	☐	☐	☐	☐
g. Long-term affordability of water for commercial and/or industrial customers	☐	☐	☐	☐	☐	☐
h. Rates charged by water utilities similar in size to your utility	☐	☐	☐	☐	☐	☐
i. Rates charged by nearby water utilities	☐	☐	☐	☐	☐	☐
j. Immediate impact to the physical condition of the utility	☐	☐	☐	☐	☐	☐
k. Immediate impact to financial condition of the utility	☐	☐	☐	☐	☐	☐
l. Immediate impact to all customer bills	☐	☐	☐	☐	☐	☐
m. Immediate impact to low-income customer bills						
n. Ability to easily explain the need for rate adjustment	☐	☐	☐	☐	☐	☐
o. Schedule for other local government taxes/charges/fees increases	☐	☐	☐	☐	☐	☐
p. Other	☐	☐	☐	☐	☐	☐

12A. If you checked "other" above, please describe._____

13. How effective is the utility's/department's communication with the local government governing body regarding rates and charges? (Select only one.)

1. Very effective	2. Effective	3. Neutral	4. Ineffective	5. Very ineffective	6. Don't know
☐	☐	☐	☐	☐	☐

14. Please indicate which information below was shared with the local government governing body during the last rate adjustment request and rate how useful this information was in your consideration of the rate adjustment.

	Info. was not shared	Info. was shared and was very useful	Info. was shared and was somewhat useful	Info. was shared but was not useful
a. How much the "average residential bill" would change	☐	☐	☐	☐
b. How changing circumstances (operating costs, usage patterns, etc.) affect finances	☐	☐	☐	☐
c. Anticipated capital expenses	☐	☐	☐	☐
d. The financial condition of the water utility	☐	☐	☐	☐
e. The physical condition of the water utility	☐	☐	☐	☐
f. Assessment of how proposed rates compare to customers' incomes (affordability)	☐	☐	☐	☐
g. Nearby utilities' current rates or proposed rate adjustments	☐	☐	☐	☐
h. Similar-sized utilities' current or proposed rate adjustments	☐	☐	☐	☐
i. Bond covenants	☐	☐	☐	☐
j. Multiple rate scenarios	☐	☐	☐	☐
k. Projected impact of rate adjustment on customer demand	☐	☐	☐	☐
l. Previous history of local government's water rates or rate adjustments	☐	☐	☐	☐
m. Anticipated rate adjustments that may be necessary in the next few years	☐	☐	☐	☐
n. Comparison of adjustments of water rates against other services (tax rate, solid waste fees, etc.)	☐	☐	☐	☐
o. Alignment with water master plan	☐	☐	☐	☐

15. What other information was shared with the local government governing body that was very useful in its consideration of the rate adjustment? (Please describe.)

16. How many years have you served as an elected official?

a. Years in this local government _____ b. Years in other local/state/federal governments _____

17. Have you visited a water system facility? (Select all that apply.)

☐ a. Yes, at the local government I currently serve
☐ b. Yes, at another community
☐ c. No

18. What is your position on the local government governing body? _____

19. Please provide the following information in case we need to contact you. This information is optional and will be kept confidential.

First name: _____ Last name: _____
Work phone: _____ Email: _____

Please return the survey to **ICMA Survey Research, 777 N. Capitol St., NE, Suite 500, Washington, DC 20002**

Appendix B
Regression Models of the Survey Results

Model 1: Factors Influencing the Ability to Request Financially-Sufficient Rate Adjustments

A cross-sectional, multivariate logistic regression model on whether the requested rate adjustment was deemed by the Chief Administrative Officer (CAO) to be sufficient to cover most (or all) of the utility's financial needs where the dependent variable takes the value "1" if a Chief Administrative Officer (CAO) requested a rate that "meets operating and most capital needs" or "beyond what is needed" and "0" for everything else. These answers were provided in response to the question: "In your professional opinion, which statement below best describes the water rate increase that was proposed to the local government governing body for approval?" The formula for the regression is:

$$Q12binary = \alpha + \beta_1(\text{Working Relationship}) + \beta_2(\text{Number of Meetings}) + \beta_3(\text{Public Involvement}) + \beta_4(\text{Years of CAO's service to Utility}) + \beta_5(\text{Monthly Water Bill}) + \beta_6(\text{Monthly Bill as Percent of MHI}) + \beta_7(\text{Messenger of Rate Case}) + \beta_8(q16a) + \beta_9(q16b) + \beta_{10}(q16c) + \beta_{11}(q16d) + \beta_{12}(q16e) + \beta_{13}(q16f) + \beta_{14}(q16g) + \beta_{15}(q16h) + \beta_{16}(q16i) + \beta_{17}(q16j) + \beta_{18}(q16k) + \beta_{19}(q16l) + \beta_{20}(q16m) + \beta_{21}(q16n) + \beta_{22}(q16o) + \beta_{23}(\text{Population}) + \beta_{24}(\text{Region}) + \varepsilon$$

The results are summarized in the table below.

VARIABLE	*Odds ratio*
Working relationship	1.556***
	(0.172)
Number of meetings: Every quarter	0.756
	(0.191)
Number of meetings: Every four to six months	1.382
	(0.336)
Number of meetings: About once A year	1.038
	(0.199)
Number of meetings: Not every year	0.813
	(0.263)
Public involvement	1.105
	(0.076)
Years of utility service (divided by 10)	1.156*
	(0.090)
Monthly water bill	1.201**
	(0.093)
Percent bill of median household income	0.477***
	(0.123)
Messenger: Utility/Department director or staff	0.811
	(0.141)
Messenger: Outside consultant or utility advisory committee	0.980
	(0.205)
Mid-Atlantic Region: NJ, NY, PA	0.359**
	(0.181)
East North-Central Region: IL, IN, MI, OH, WI	0.377**
	(0.155)
West North-Central Region: IA, KS, MN, MO, NE, ND, SD	0.711
	(0.305)
South Atlantic Region: DE, FL, GA, MD, NC, SC, VA, WV, D.C.	0.459*
	(0.191)

East South-Central Region: AL, KY, MS, TN	0.505
	(0.305)
West South-Central Region: AR, LA, OK, TX	0.394**
	(0.174)
Mountain Region: AZ, CO, ID, MT, NV, NM, UT, WY	0.453*
	(0.205)
Pacific Coast Region: AK, CA, HI, OR, WA	0.518
	(0.221)
Population: 2,500-4,999	1.470
	(0.375)
Population: 5,000-9,999	2.586***
	(0.681)
Population: 10,000-24,999	2.597***
	(0.678)
Population: 25,000-49,999	3.892***
	(1.113)
Population: 50,000-99,999	5.112***
	(1.602)
Population: 100,000-249,999	9.214***
	(3.473)
Population: Greater than 250,000	4.082***
	(1.901)
Info shared: How much avg. residential bill will change	1.185
	(0.647)
Info shared: How changing circumstances affect finances	0.530
	(0.228)
Info shared: Anticipated capital expenses	2.920***
	(1.026)
Info shared: Financial condition of the utility	1.129
	(0.494)
Info shared: Physical condition of the utility	1.050
	(0.240)
Info shared: Affordability	0.898
	(0.150)
Info shared: Nearby utilities' current/proposed rates	1.279
	(0.284)
Info shared: Nearby utilities' current/proposed rates	0.795
	(0.152)
Info shared: Bond covenants	1.194
	(0.186)
Info shared: Multiple rate scenarios	1.000
	(0.164)
Info shared: Impact of rate adjustment on customer demand	1.113
	(0.184)
Info shared: Previous history of local govt.'s water rates	0.797
	(0.172)
Info shared: Anticipated rate adjustment in next few years	0.856
	(0.157)
Info shared: Rate adjustments compare to other fees/taxes	0.907
	(0.148)
Info shared: Alignment with water master plan	1.357*
	(0.223)
Constant	0.044***
	(0.039)
	0.0000***

Prob>chi-squared	0.1161
Pseudo R-squared	
Observations	1,035

Standard error in parentheses
*** p<0.01, ** p<0.05, * p<0.1

The model's pseudo R-squared= 0.1161 indicates a strong association in this model. The more traditional measurement of significance for logistic regressions (Prob > chi-squared) is significant at the 99% level.

Significant Findings

For every positive unit increase in reported **working relationship**, it is 1.5 times more likely that the CAO requested a rate that meets operating and capital needs ("1"). For every unit increase in percent of **Median Household Income**, the likelihood of requesting a rate that meets operating and capital needs was half as likely. In other words, the less affordable the water bill, as percent of MHI, the less likely the Chief Administrative Official (CAO) was going to ask for a higher rate (that would cover operating and capital costs).

The survey asked CAOs how many years they had worked with their water utility, and we divided that number by 10 to analyze the results. The results show that for every **10 years of service**, the CAO was 1.15 times more likely to ask for a rate that meets operating and capital costs (at a 90% confidence level). The results also indicate that for every $10 increase in **average monthly bill**, the CAO was 1.2 times more likely to ask for a rate that meets operating and capital costs.

If a utility **shared information about anticipated capital expenses** in the rate case, they were 2.92 times more likely to ask for a rate that covers operating and capital needs. If rate case included a information about the rate's **alignment with a water master plan**, the CAO was 1.357 times more likely to ask for a rate that covers operating and capital needs (90% confidence level). All the aforementioned relationships are significant at the 95% level, unless otherwise noted.

Controls

The regression **controlled for region**, using the New England region (CT, ME, MA, NH, RI, VT) as a comparison. Compared to that region, five other regions were less likely to ask for a rate that met operating and capital costs (the Mid-Atlantic, East North-Central, South Atlantic, West South-Central, and Mountain regions). In general, each of these regions were about 40% less likely than the New England Region to ask for a rate that met operating and capital costs.

The model also **controlled for population** with ordinal variables. Again, we compare the results to the baseline population, which was less than 2,500. Compared to that population, local governments with 5,000-9,999 and 10,000-24,999 were 2.5 times more likely to ask for rates that met operating needs and capital costs. For populations with 25,000-49,999, it jumps to 3.892 more likely. The coefficient continues to increase, except for utilities with a population of greater than 250,000-it drops back to 4.082. Essentially, utilities in areas with greater populations are increasingly more likely to ask for rates that meets operating and capital needs.

Although individually non-significant, we recombined the categorical variables to see if each variable was significant. For example, we controlled individually for each region, but does region, as a whole, matter? In this model, region was significant at the 90% level. All other variables were non-significant.

Model 2: Factors Influencing the Size of the Rate Increase Request

This model is a linear regression, where the dependent variable is the amount of water rate increase requested by the utility in the most recent rate request. These answers were made in response to the question: "Which statement best describes your most recent water rate increase request (regardless of whether it was approved)?" Single requests (e.g. 6%) were combined with range medians (e.g. 6-10% becomes 8%) into a single column before taking the natural log. Taking the natural log of a variable drops responses of "0", as well as makes the variable behave more "normal." The formula for the regression is:

$$\text{lnoneratevalue} = \alpha + \beta_1(\text{Working Relationship}) + \beta_2(\text{Number of Meetings}) + \beta_3(\text{Public Involvement}) + \beta_4(\text{Level of Cost Recovery}) + \beta_5(\text{Years of CAO's service to Utility}) + \beta_6(\text{Monthly Water Bill}) + \beta_7(\text{Monthly Bill as Percent of MHI}) + \beta_8(\text{Messenger of Rate Case}) + \beta_9(q16a) + \beta_{10}(q16b) + \beta_{11}(q16c) + \beta_{12}(q16d) + \beta_{13}(q16e) + \beta_{14}(q16f) + \beta_{15}(q16g) + \beta_{16}(q16h) + \beta_{17}(q16i) + \beta_{18}(q16j) + \beta_{19}(q16k) + \beta_{20}(q16l) + \beta_{21}(q16m) + \beta_{22}(q16n) + \beta_{23}(q16o) + \beta_{24}(\text{Population}) + \beta_{25}(\text{Region}) + \varepsilon$$

VARIABLES	*Coefficients*
Working relationship	-0.0512
	(0.0492)
Number of meetings: Every quarter	-0.0997
	(0.113)
Number of meetings: Every four to six months	-0.110
	(0.103)
Number of meetings: About once A year	-0.0358
	(0.0835)
Number of meetings: Not meeting every year	-0.0371
	(0.145)
Public involvement	0.0797***
	(0.0300)
Cost recovery of request (original, not binary)	0.0964**
	(0.0454)
Years of utility service (divided by ten)	-0.0169
	(0.0338)
Monthly water bill	0.0153
	(0.0338)
Percent bill of median household income	0.0578
	(0.113)
Messenger: Utility/Department director or staff	0.131*
	(0.0754)
Messenger: Outside consultant or utility advisory cmte.	0.332***
	(0.0936)
Mid-Atlantic Region: NJ, NY, PA	0.183
	(0.224)
East North-Central Region: IL, IN, MI, OH, WI	0.0505
	(0.178)
West North-Central Region: IA, KS, MN, MO, NE, ND, SD	-0.0102
	(0.185)
South Atlantic Region: DE, FL, GA, MD, NC, SC, VA, WV, D.C.	-0.0705
	(0.180)

East South-Central Region: AL, KY, MS, TN	0.283
	(0.266)
West South-Central: AR, LA, OK, TX	0.0469
	(0.193)
Mountain: AZ, CO, ID, MT, NV, NM, UT, WY	0.0259
	(0.195)
Pacific Coast: AK, CA, HI, OR, WA	0.0120
	(0.184)
Population: 2,500-4,999	-0.139
	(0.111)
Population: 5,000-9,999	-0.370***
	(0.117)
Population: 10,000-24,999	-0.285**
	(0.115)
Population: 25,000-49,999	-0.148
	(0.126)
Population: 50,000-99,999	-0.345**
	(0.134)
Population: 100,000-249,999	-0.374**
	(0.151)
Population: Greater than 250,000	-0.174
	(0.200)
Info shared: How much avg. residential bill will change	0.224
	(0.254)
Info shared: How changing circumstances affect finances	0.0813
	(0.185)
Info shared: Anticipated capital expenses	-0.192
	(0.146)
Info shared: Financial condition of the utility	-0.0751
	(0.197)
Info shared: Physical condition of the utility	0.219**
	(0.101)
Info shared: Affordability	0.0545
	(0.0724)
Info shared: Nearby utilities' current/proposed rates	0.213**
	(0.0946)
Info shared: Similar size utilities' current/proposed rates	-0.0775
	(0.0794)
Info shared: Bond covenants	-0.0839
	(0.0667)
Info shared: Multiple rate scenarios	0.100
	(0.0713)
Info shared: Impact of rate adjustment on customer demand	0.0782
	(0.0709)
Info shared: Previous history of local govt.'s water rates	-0.0360
	(0.0915)
Info shared: Anticipated rate adjustment in next few years	-0.146*
	(0.0797)
Info shared: Rate adjustments compare to other fees/taxes	-0.0491
	(0.0702)

Info shared: Alignment with water master plan	-0.0874
	(0.0707)
Constant	1.476***
	(0.408)
Observations	843
Prob>F	0.0003***
R-squared	0.094
Adj. R-squared	0.047

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

The model is significant at the 99% level.

Findings

For every unit increase **in public involvement**, there was a 7% increase in the natural log of the rate requested by the CAO. For **every unit increase in cost recovery**, there was nearly a 10% increase in the natural log of the rate requested by the CAO. The **messenger** for the rate case was compared to City/County Manager. When compared to this group, the Utility directors/staff asked for higher rates than city/county mangers (13% more of the natural log of the rate request) and outside consultants and/or advisory committees asked for even higher rates (33% more of the natural log of the rate request made by city/county managers). CAOs who shared information about the "**physical condition of the utility**" and "**nearby utilities' current or proposed rates asked for higher rate adjustments**". Conversely, CAOs who shared information about "**anticipated rate adjustment in the next few years**" asked for a lower rate request (90% level).

Controls

The regression **controlled for region**, using the New England region (CT, ME, MA, NH, RI, VT) as a comparison. None of the regions differed significantly in the amount of rate increase requested. The model also **controlled for population** with ordinal variables. Again, we compare the results to the baseline population, which was less than 2,500. Compared to that population, local governments with 5,000-9,999 and 10,000-24,999 requested 30% lower rates than the smallest communities, as did those with populations between 50,000 and 249,999. As a group, population was a significant factor in the amount of rate increase requested. Meeting frequency, the monthly water bill, and the percent bill of MHI were not significant.