



The National Regulatory Research Institute

A Report on the Second National Drinking Water Symposium

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**A REPORT ON THE SECOND
NATIONAL DRINKING WATER SYMPOSIUM
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EXECUTIVE SUMMARY

Representatives of the water industry, state and federal environmental and public health regulators, state utilities commissioners and many others came together in October 2003 for the Second National Drinking Water Symposium to hear presentations on pressing issues and engage in dialogue on potential solutions. This NRRRI report summarizes Symposium speaker topics, suggestions and responses into seven areas:

1. water scarcity, value and sustainability
2. infrastructure replacement capital investment needs and approaches
3. small system challenges and sample solutions
4. security investment costs and handling of sensitive information
5. global regulatory influences and practices
6. stakeholder (customer and legislative) communication and,
7. regulator and interagency collaboration.

The report includes information and perspectives for all water stakeholders to consider as they work within their spheres of influence to develop and implement comprehensive, sound and sustainable water policies.

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FOREWORD

This report of the Second National Drinking Water Symposium is dedicated to the late Senator Paul Simon, who passed away on Dec. 9, 2003.

People across America came to know and admire the well-spoken, charming, bow-tied Senator from Illinois during 1987-88, when he sought the Democratic nomination for president. Simon wrote 22 books including: *Tapped Out: The Coming World Crisis in Water and What We Can Do About It* in 1998. Senator Simon was a professor at Southern Illinois University (SIU), where he taught classes in political science, history and journalism. He joined SIU's faculty in 1997 -- just weeks after retiring from a lengthy and distinguished career in the U.S. Senate. He also founded and directed the Public Policy Institute at the Carbondale campus. Prior to leaving the U.S. Senate, he ranked as Illinois' senior senator. In the 104th Congress he served on the budget, labor and human resources, judiciary, Indian affairs and foreign relations committees.

Following publication of *Tapped Out*, Senator Simon continued to bring prominence to global water issues through his writings and participation in forums all over the world including the first National Drinking Water Symposium in St. Petersburg, Florida in 2002 where he gave the keynote address. Senator Simon narrated portions of the gripping documentary film, *Running Dry*, which presents the view that water resource scarcity may lead to conflict and even war unless resolved soon. Among the many ideas Senator Simon promoted was establishment of a fulltime organization to examine international water issues and promote international collaboration. He urged recruitment of legislators who are willing to overcome indifference and tackle myriad water quality and quantity problems.

The passing of Senator Paul Simon is a great loss to the water stakeholders and citizens of the water industry not only for his knowledge, but also for his articulate and compassionate voice for policies to protect and ensure availability of life-sustaining water. We respectfully dedicate this report to Senator Paul Simon and commit ourselves to continue his remarkable legacy.



John W. Betkoski, III
Chair, NARUC Committee on Water
Commissioner, CT DPUC

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INTRODUCTION

The Second National Drinking Water Symposium (Symposium) brought state utility commissioners and commission staff, state drinking water administrators, U.S. Environmental Protection Agency (EPA) officials and water industry representatives together with an array of stakeholders to share ideas about provision of safe drinking water. Panels covered a variety of current issues which are clustered here into seven areas:

1. Water scarcity, value and sustainability
2. Infrastructure replacement capital investment needs and approaches
3. Small system challenges and sample solutions
4. Security investment costs and handling of sensitive information
5. Global regulatory influences and practices
6. Stakeholder (customer and legislative) communication
7. Regulator and interagency collaboration

Participants included private and public water utilities, state and federal economic, environmental and public health regulators, academicians, consulting engineers, public officials, researchers, entrepreneurs and consumer advocates. Presiding symposium officers included: the Honorable John W. Betkoski, III, Commissioner, Connecticut Department of Public Utility Control and Chair, National Association of Regulatory Utilities Commissioners (NARUC) Committee on Water; Andrew Chapman, President, Elizabethtown Water, Company President, New Jersey American Water Company, and 2003 President, National Association of Water Companies (NAWC); Jay Rutherford, Director, Water Supply Division, Vermont Department of Environmental Conservation and 2003 President, Association of State Drinking Water Administrators (ASDWA) and Missouri Public Service Commissioner Robert M. Clayton III.

Panel moderators and other facilitators included: Peter Cook, Executive Director, NAWC; The Honorable Connie O. Hughes, Commissioner New Jersey Board of Public Utilities and Chair, NARUC Ad Hoc Committee on Critical Infrastructure; The Honorable

Arnetta McRae, Chair, Delaware Public Service Commission; The Honorable Judith G. Ripley, Commissioner, Indiana Utility Regulatory Commission; E. Buck Henderson, Manager, Public Drinking Water Section, Water Supply Division, Texas Commission on Environmental Quality; The Honorable Susan S. Geiger, Commissioner, New Hampshire Public Utilities Commission; The Honorable Susan P. Kennedy, Commissioner, California Public Utilities Commission and The Honorable Jeanne M. Fox, President, New Jersey Board of Public Utilities.

(Many Symposium presentations are posted in their entirety on the NAWC website at: <http://www.nawc.com/meetings-information.html>)

Opening Remarks

The Honorable Frederick F. Butler, New Jersey Board of Public Utilities and Chair, NARUC Committee on International Relations opened the Symposium noting that the International Committee co-sponsored the Symposium, that foreign ownership among water utilities is increasing, and innovations gleaned from around the world may have beneficial applicability in the U.S. The Honorable John W. Betkoski, III, Commissioner, Connecticut Department of Public Utility Control and Chair, NARUC Committee on Water welcomed participants, acknowledged co-sponsors U.S. EPA, NARUC, NAWC, and ASDWA, and stressed the need for collaboration between economic, public health and environmental regulators.

Water Value, Scarcity and Sustainability

Introduction

Rates that fully recover utility costs and reflect the true value of drinking water are viewed as essential if we are to efficiently meet future demand for safe drinking water. Consequences of historical under pricing both due to an unwillingness to pay on the part of consumers, and an unwillingness to charge on the part of some utilities are “coming home to roost” as the resource becomes increasingly scarce and competing interests more vocal. Customers continue to frequently view water as a free,

entitlement good forgetting that source protection, treatment, and distribution and their costs are all part of water provision. Some water utility managers remain reticent about raising rates and explaining the need for higher rates to customers. Against this backdrop, Symposium speakers and participants explored the need for properly valuing water and carefully managing the resource.

Robert Raucher, Ph.D., a natural resource economist with Stratus Consulting said although the value of drinking water is more than financial costs, cost of service regulation primarily focuses on out of pocket expenses to pump, treat and store it. Policy-makers need to embrace the value of the water resource itself using full social cost accounting that includes both external and internal costs, looks across all the actors in society and reflects both quantitative and qualitative values. Value depends on water's uses and its attributes, for example, extractive uses, in-stream uses, near stream recreation, or hydropower. Key attributes of value include the timing, quality and reliability of supply. Raucher urged decision-makers to consider value and cost of new source development in tandem with cost/benefit analyses of reuse, conservation, desalination, conjunctive use, loss control, and watershed protection. He advocated explicit examination of the trade-offs or opportunity costs associated with competing uses and approaches. Why? Not every security, infrastructure or water quality investment is a worthwhile expenditure. When resources are scarce, there is a critical need to set priorities and spend where the spending adds value.

Analogizing to 18th century Scottish philosopher Adam Smith's "Paradox of Diamonds and Water," Peter Shanaghan, Chief of Staff, Office of Ground and Drinking Water, U.S. EPA offered the "soft drinks and water paradox." In the U.S., we spend \$707 per year on refreshments contrasted to \$474 on water and wastewater service. Indeed, in 2002, the Congressional Budget Office found that water bills are one half of one percent of household income in the U. S. All speakers agreed that proper valuation of water and wastewater is a threshold issue.

Floyd Wicks, President and CEO, American States Water Company, saw opportunities for the water industry through investments in sustainable approaches to water provision. Noting forecast of a three billion person increase in population in semi-arid areas that will require a 60 percent increase in water use by 2050, Wickes identified

opportunities for water utilities to expand utilizing (among other tools) demand side management and desalination (noting that 70 percent of people live within 50 miles of an ocean). Approaches must become:

- Sustainable
- Drought – proof
- Avoid the cost of more large dams or reservoirs

Jim Thebaut, the writer, producer and director of the documentary film, *Running Dry*, and a Carnegie Corporation Grantee, echoed Wicks concerns and recommendations, citing the annual death toll related to profound water quantity and quality deficits, particularly in semi-arid areas in Africa and Asia. It is said that a picture paints a thousand words; a moving picture is even more illuminating. A goal of Mr. Thebaut's film is to help the world's peoples and policymakers understand and appreciate the true value of water and the ways in which we can protect and use it wisely or risk conflict or even war over water. *Running Dry*, which is narrated in part by the late Senator Paul Simon, tells the story of the ongoing Middle East water crisis with vivid on-the-ground footage and interviews with top water policymakers in Israel, Jordan, the U.S. and the Palestinian Authority.

Lawrence MacDonnell, an attorney with the law firm of Porzak, Browning and Bushong LLP and the National Research Council Committee on Water Resources Research, focused on water scarcity in the American west where the biggest challenges are increasing water demand in urban areas, drought and environmental degradation. There has been enormous population growth as the west is a living place of choice for many. Originally 80 percent of water rights were dedicated to agriculture. Some renegotiation of water rights is taking place over the Colorado River which flows through seven western states and involves many interests beyond drinking water. Transformation of western rivers has been extensive with large main stem dams, diversion dams, and hydroelectric facilities. As well, water provision and use is impacted by the Endangered Species Act which prohibits federal actions and anyone from killing, harming or harassing protected animal species.

According to Douglas H. Benevento, Executive Director of the Colorado Department of Public Health, Colorado's water challenges typify western water woes. Benevento said drought and wildfires have led to low flows and increased concentrations of pollutants in western surface waters. Because these problems have greatly impacted small systems already stressed due to limited financial, technical and managerial capability, the Department of Public Health joined with their regional EPA to urge small systems to divulge problems while promising that enforcement actions would not ensue. In a thoughtful communication tactic, staff from both agencies visited with systems to personally deliver the message. EPA also helped by providing \$600,000 in grants. Basically, the primacy agency and the regional EPA office agreed to forego the "hammer" and the troubled systems agreed to invest the amount of the applicable penalty into their facility. Larger utilities represented at the Symposium requested similar treatment when they take over troubled systems that need to be brought into compliance. It was noted that Pennsylvania adopted a policy that provides incentives for acquisition and merger of small nonviable water utilities. Connecticut, Indiana, New Jersey, Oregon, Pennsylvania and Washington have various forms of mandatory takeover laws. Pollution prevention at the outset is the best overall method.

With a nod to Dr. Raucher's recommendations, within the State of Colorado a new approach to environmental protection is being tested, the "Environmental Balance Sheet Approach." The new way provides for discussion between regulators and companies of problems and examination of the array of possible actions and their potential outcomes. This serves to avoid an environmental fix for one purpose being inadvertently undone by the actions of another. An example given was when \$1 billion was expended pursuant to the Clean Air Act to capture Volatile Organic Compounds (VOCs) that were later released back into the air as part of a water treatment process downstream.

In her presentation, "Up a Creek with Too Many Paddles – Balancing Competing Demands during Hydro Dam Relicensing," FERC Commissioner Nora Mead Brownell said a typical license runs for 30-50 years and then a complicated re-licensing process ensues. FERC is responsible for the economic analysis of approximately 60 percent of all hydropower plants but other parties may impose mandatory conditions. An average

re-licensing process takes seven years and numerous facilities are up for re-licensing in the next decade. Western water woes will surely worsen as these facilities come in for renewed licenses and varied groups join the debate over environmental impacts and best uses.

Infrastructure Replacement Capital Investment Needs and Approaches

Introduction

During the next decade and beyond, NARUC members will be required to oversee investor-owned water utility replacement and repair of water distribution systems that are approaching the end of their useful lives. The potential impact on customer rates is great with replacement costs in established communities approaching \$100/foot or more according to some estimates.¹ In addition, the General Accounting Office (GAO) determined that some utilities have not been charging rates sufficient to cover their costs and that maintenance and upgrades have frequently been deferred. The largest category of need is for transmission and distribution projects. Other categories include storage projects and projects to protect source waters.² The timely topics of infrastructure replacement investment needs and approaches were a major focus of the Symposium.

Peter Shanaghan said the U.S. EPA recognizes multiple dimensions of the infrastructure challenge including:

- Replacement of aging systems
- Population growth
- Evolving public health protection standards
- Historical under-pricing and underinvestment

¹ Terry L. Gloriod, "Changes in the Water Utility Industry", Mid-America Regulatory Conference Annual Meeting, PowerPoint Presentation, Mackinac Island, MI, May 2001

² United States General Accounting Office (GAO), Report to Congressional Requesters, Water Infrastructure: Information on Financing, Capital Planning, and Privatization, GAO-02-764 (Washington, D.C.: August 2002.

- System security and reliability – vulnerability due to lack of storage and power supply

The U.S. EPA is promoting strategies including better management, efficiency, full cost pricing, and watershed approaches. Better management is considered in terms of a progressive triangle. At the bottom is threshold management capability, the next level is standard practice “good utilities,” and at the point and upward are “best in class” organizations. Operational efficiency among water utilities is essential as the marginal cost of expanding supply is high. Demand side management must play a greater role including:

- Metering
- Water use efficiency
- Conservation rates
- Reuse

The U.S. EPA advocates watershed approaches comprised of broad stakeholder involvement, along hydrologic boundaries, and coordinated management such as investment in upstream protection methods. An Illinois – American innovation is illustrative. The utility funded a watershed project to reduce upstream sediment loads instead of investing in lagoons, mechanical dewatering, and hauling to a landfill at its water treatment plant. Illinois-American accomplished a 2:1 sediment reduction with reduced capital and operating costs. A positive externality resulted: neighbors of the facility were pleased to avoid other infrastructure installations.

Shanaghan mentioned the U.S. EPA study, released in September 2002, that concluded that the water and wastewater capital investment over the next 20 years could range from \$499 to \$929 billion. He added that “our water systems are aging-even as our population is growing and our drinking water rules tightening. What that ultimately means is that we are going to have to pay an adequate price for our infrastructure in our rates. There is, as the saying goes, no free lunch in our future.”

Kathy Pape – Vice President, Treasurer and Rate Counsel, Philadelphia Suburban Corporation (now Aqua America) said water utilities must talk to customers about their infrastructure needs and associated financial impacts. During her presentation, “It’s What You Don’t See,” Pape called pipes the “unsung heroes of the water industry.” She credited infrastructure improvement surcharges (also known as distribution system improvement charges) with transforming Philadelphia Suburban’s infrastructure program. The utility reduced its replacement cycle from 900 years in 1991 to 100 years currently. Infrastructure improvement surcharges are needed opined Pape because infrastructure projects are ongoing, of short duration and non-revenue producing.

David LaFrance, Director of Finance, Denver Water said Denver Water operates pursuant to a 10-year capital plan using options such as general obligation bonds and revenue bonds paid back through rates. Certificates of Participation, In-kind Contributions, infrastructure surcharges and system development charges are also used wherein a fee is charged at the time of hook-up based upon the value of the utility’s capacity and the amount of capacity required by the new customer. When water districts sell their distribution system to Denver Water, parties agree on the cost of improving the system. Denver Water makes improvements, and customers in the area pay rates plus a surcharge to recover cost of improvements. The 10-15 year surcharge is amortized over that entire period no matter when the improvements are actually made. Denver Water updates its rates annually.

The Honorable Mary Frances Squires – Commissioner, Illinois Commerce Commission, reminded listeners that rate shock continues to be a key issue for ratepayers. To mitigate rate shock and ensure infrastructure funding, the Illinois Legislature authorized a Qualifying Infrastructure Improvement Project (QIIP) for prudently incurred water infrastructure costs. On Aug. 26, 2003, Illinois’ first QIIP was approved.

David R. Monie P.E., President, GPM Associates, Inc. who has managed several small water utilities, discussed the merits of a Low Income Water Assistance Program similar to LIHEAP, the Low Income Home Energy Assistance Program. Such a program was initially suggested in a July 2003 report from the affordability workgroup of

U.S. EPA's National Drinking Water Advisory Committee. Although it is thought that many consumers can afford to pay more for drinking water, some poor and working poor customers will clearly need help as the bill for infrastructure replacement comes due.

Continuing Small System Problems and Sample Solutions

Introduction

Small water utilities present a number of policy challenges and problems for regulators and the broader water utility industry. They do not enjoy the economies of scale that larger utilities do with regard to treatment and source development and often lack access to adequate financing for capital projects. Many small systems, due to limited managerial and technical capability, violate drinking water regulations, including monitoring requirements. Although Safe Drinking Water Act requirements discourage new, nonviable small systems from becoming established (a state's Revolving Loan Fund allotment is subject to being withheld if its viability program is not properly implemented), many remain, and remain a concern for regulators, water organizations and consumers. At the same time, some small system programs are working.

Gregg Grunenfelder, Acting Chief Administrator, Washington Department of Health, Division of Drinking Water, said a key feature in small system success there is relevant, ongoing operator training. They offer key courses in numerous locales to increase operator access to training. Monitoring compliance rates have risen due to annual water quality monitoring reports that tell operators exactly what they need to be doing. Water System Planning is required and needs to be updated every six years e.g. operating procedures, emergency response protocols. Consolidation is promoted where appropriate recognizing that some areas are not conducive to consolidation and others may be best served by smaller, well run systems. A 1995 law provided for satellite management agencies. There are now 31 such agencies that own or operate small systems. The Dept. of Public Health recently received money to provide incentives for new owners to purchase and consolidate failing systems.

Neil Phillips – President and CEO, Hydraulics Ltd, an affiliate of Philadelphia Suburban Corporation has spearheaded acquisition of small systems in Pennsylvania, North and South Carolina, Virginia, Florida and Texas using standardized facilities. Hydraulics frequently found a lack of basic maintenance and needed to make sizable capital investments to repair and replace infrastructure. Installation of customer meters, chlorinators at every site, additional customer service personnel and publication of toll-free customer help lines were needed. The company enabled customers to maintain water service during weather emergencies through use of a tow-behind, portable electric generator. Opportunities to improve customer service through common management without actual interconnection abound.

Carol Kozloff, Rate Case Review Specialist for Commissioner Wendell F. Holland at the Pennsylvania Public Utility Commission (PUC) and a Symposium Program Coordinator, served as a Responder for the Small Systems discussion. Recognizing the many small system challenges faced by regulators, Kozloff noted the benefits of having a comprehensive regulatory framework in place, as is done in Pennsylvania. Within that framework, a variety of ratemaking tools can be applied as warranted to assist small systems in need. Essentially, the Pennsylvania PUC relies upon regionalization and ongoing interagency cooperation as the sustainable path to water system viability. Kozloff said the PUC seeks permanent solutions, rather than short-term fixes, and that essential ingredients to resolving small water company problems are the viable water companies that acquire and improve the troubled systems. Following acquisition and system improvements, ratepayers of formerly troubled systems benefit by experiencing the higher caliber of service routinely experienced by ratepayers of viable systems.

Peter Shanaghan, Chief of Staff, Office of Ground and Drinking Water, U.S. EPA in his responding remarks cited an American Water Works Association Research Foundation finding that 86 percent of small systems are within five miles of another system suggesting the value of exhaustively evaluating the potential for common management with or without interconnection.

Global Regulatory Influences and Practices

Introduction

During the last decade, acquisition of U.S. water companies by overseas conglomerates and mergers between U.S. water businesses have proliferated. As U. S. water managers have learned more about alternative regulatory approaches utilized elsewhere, requests for stateside regulatory policies that will facilitate expansion and enhance profitability have increased. A greater focus on customers evidenced by use of customer service and financial metrics has also accompanied the advent of large, international entities into U.S. markets that wish to maintain and demonstrate benefits for local customers. Centralized purchasing, call centers, enhanced security measures, research and development and benchmarking capability were deemed key benefits of being part of an international organization. Constraints to expansion and profitability were noted as well; among them: vast capital needs for infrastructure including treatment facilities nearing the end of their useful life, industry fragmentation, dispersed regulatory responsibilities and varied regulations, lack of financial and performance incentives, and ratemaking left to the initiative of water utilities (as opposed to established, periodic rate reviews).

Janet M. Hansen, President and CEO, Aquarion Water Company and Executive Vice President, Aquarion Company, discussed the United Kingdom's approach. The UK consolidated the industry into ten regional utilities subject to centralized regulation from the Office of Water Services (OFWAT) whose mission is:

“To regulate in a way that provides incentives and encourages the companies to achieve a world-class service in terms of quality and value for customers in England and Wales.”

OFWAT's primary duty is to make sure that the companies are able to carry out and finance their functions under the Water Industry Act 1991 (WIA91). OFWAT sets price limits that are reviewed every five years. The 2004 review contains four phases:

- Framework and issues
- Assessment of draft business plans and market research

- Decisions and determinations
- Implementation of price limits and evaluations of periodic review 2004

A key benefit of the UK system is competitive benchmarking among the regional companies. Performance is assessed across an array of variables with the intent of moving all utilities up the performance scale over time. Hansen said the best use of incentives by U.S. regulators would be to use rate of return regulation to increase the return on equity for the best performing utilities.

Janice Beecher Ph.D., Director, Institute of Public Utilities, Michigan State University contrasted U.S. and foreign regulatory models. Regionalization (United Kingdom), price caps, performance based ratemaking (United Kingdom, Edmonton, Alberta), concessions (France) and municipal corporations (Germany, Australia, Louisville, Kentucky) are options that state regulators might wish to learn more about. Regardless, the essential monopoly character of water is intact as is the need for economic regulation. Many state commissions have taken steps to improve upon basic rate of return regulation by streamlining procedures for small systems, for example. Beecher concurred with Hansen that rate of return regulation can provide powerful performance incentives via increased or decreased returns on equity and disallowances. Alternative mechanisms may not be necessary.

Jim McGivern, COO, American Water, discussed the 2003 American Water and RWE merger calling water a local business that must be characterized by local commitment. Benefits of scale can benefit local customers via, for example, centralized procurement. They are engaging outside accreditation programs to evaluate their systems and establishing customer service and financial performance metrics. Customer service staff with links to field service personnel are available seven days a week; twenty-four hours a day. The company has also developed a statement of environmental policy for the entire organization. The company is working to respond to the results of a nationwide employee survey to which there was an 85 % response rate in which employees advised managers to “talk to us more and give us a “license to manage.” Knowledge management is a focus both in terms of identifying extant communities of practice and through greater utilization of company intranet.

Nicholas DeBenedictis, Chairman and CEO, Philadelphia Suburban Corporation (now Aqua America) described a U.S water landscape peppered with numerous, small troubled systems that are garnering a disproportionate share of environmental violations. He contrasted the US Privatization Model that includes purchase of smaller utilities by larger ones along with operating and maintenance contracts with cities including US Filter, United Water (Suez) with an International Model characterized by operation and maintenance of water and wastewater by a few international companies. Examples of long-term international contract management providers would be Vivendi, Suez, and Severn Trent. He cited an American Society of Civil Engineers report which gave water infrastructure a grade of D- and said more capital is needed for water than for all other utilities. His company is implementing operational improvements and aggressive cost containment. With a 13 percent return on equity, their strategies appear to be working.³

Patrick Cairo, Executive Vice President – Marketing and Strategy, United Water (Wholly-Owned by Suez Environment) spoke of his company's regional management structure and the division between the regulated portions and non-regulated public private partnerships. He discussed management of utilities by outside operators and urged that operation and maintenance contracts be overseen and their performance monitored by an independent third party (not by displaced personnel).

Debra G. Coy, Vice President, Washington Research Group, Schwab Capital Markets, observed that worldwide investor interest in the water business has been muted by a lack of confidence in the overall regulatory and political environment. Lack of support for rate increases to support return on capital investment is a key concern for investors. Coy explained that because of the high capital investment requirements for water infrastructure, water utility companies typically generate negative operating cash flow. This makes them appear unattractive to many investors compared to other investment options -- unless investors can get comfortable that utility regulators will allow acceptable returns on equity investment in new assets.

³ Edward Jones, Water Utility Industry Summary: Quarterly Financial and Common Stock Information, Sept. 30, 2003.

European investors have, thus far, been cautiously skeptical of RWE's investment in American Water Works, since RWE paid more than 2 times book value for AWW and it has not yet generated any significant return on that investment. While utility mergers have slowed significantly in the face of investor skepticism, Coy noted that industrial companies have shown increased interest in the water treatment business. In particular, General Electric has become a major new player in the water industry. It has acquired water filtration and water treatment chemicals firms and, with \$1.5 billion in revenues now, it is looking to further expand its investment in this sector. While GE is currently focused on industrial water treatment markets, the company says it will also soon begin to target the municipal water treatment markets, since the needs for local water and wastewater infrastructure upgrades are so great.

Security Costs and Sensitive Information

Introduction

Cost recovery and information sharing have traditionally gone together. State regulators expected disclosure of plans and costs and utilities understood that cost recovery approval was contingent upon it. Since the September 11 attack on the World Trade Center, that understanding has come into question. Water utilities are reluctant to freely share information on their security related plans and expenses lest it get into the wrong hands and leave their systems vulnerable to intrusions. Regulators are reluctant to approve expenditures without full disclosure of the rationale for the expense and demonstration that reasonable, less costly options were considered.

According to Stephen B. Genzer of LeBoeuf, Lamb, Greene & McRae, LLP, state regulators have denied pre-test year security costs and security surcharges in recent proceedings. Regulators questioned whether actions taken were based upon the findings of vulnerability assessments and whether work was competitively bid. In Genzer's view, security investments should be handled as an extraordinary expense. His idea: Commissions should appoint someone to deal exclusively with security issues in a separate proceeding. Only the result would then be included in the more open rate case process. Peter Shanaghan, U.S. EPA, pointed out that sizable capital

improvements would likely be undertaken by water utilities anyway and should be disclosed. Action taken at a particular site due to specific intelligence is different from putting a cover on water storage which is something public health professionals have advocated for years. Redundancy enhances reliability as well as security. At the same time, Shanaghan acknowledged that required vulnerability assessments are, in effect, a roadmap to the weakest areas of a utility. It is a federal crime to divulge the contents of a vulnerability assessment and the U.S. EPA instituted a protocol that greatly restricts access. Federal law does not offer protection however at the state or local level.

The Honorable Connie O. Hughes, Commissioner, New Jersey Board of Public Utilities and Chair, NARUC Ad Hoc Committee on Critical Infrastructure, said that a 2003 National Regulatory Research Institute (NRRI) Survey on Critical Infrastructure Security (undertaken at the Ad Hoc Committee's request) found that 82 percent of commissions now offer Freedom of Information coverage for sensitive utility information, compared with forty-two percent in 2002. The survey also revealed that most commissions do not have guidelines in place for specifically determining the prudence of security investments. Fifteen percent of states have guidelines, an increase from the three percent reported when the question was asked in 2002. To see complete findings go to: <http://www.nrri.ohio-state.edu/> and click on critical infrastructure clearinghouse. *(Relevant NARUC resolutions include: NARUC Resolution Relating to the Protocol to Secure Vulnerability Assessments Filed by Water Systems Pursuant to the Public Health Security and Bio-terrorism Preparedness and Response Act of 2002, adopted Feb. 26, 2003 and NARUC Resolution on Guidelines for State Commission Procedures Involving the Handling of Security Sensitive Documents and the Recovery of Prudently Incurred Security-Related Costs, adopted Mar. 13, 2002).*

Stakeholder (Customer and Legislative) Communication

Introduction

At a time when rates are being pressed upwards along with increasing environmental and public health requirements, infrastructure replacement and greater demand for water, the importance of communicating effectively and frequently with

ratepayers and other stakeholders (including state and local legislators and members of Congress) cannot be emphasized enough. Many groups need to receive information and have an opportunity for consultation with decision-makers. Many entities and individuals need to play a part in delivering key messages including utilities, regulators, consumer advocates and others.

Jack Hoffbuhr, Executive Director, American Water Works Association (AWWA) said a crisis is often needed in order to create change. And if a crisis situation doesn't exist, he urged listeners to create one by talking to the public about the crisis that will come for the next generation if there is a failure to address problems today. Hoffbuhr promoted three C's:

- Create the crisis
- Communicate the crisis
- Culture - make communication a part of the water culture

What is the priority message? The central message is the economic value of water to the community. The benefits of an excellent water system outweigh the costs that customers will be paying.

Christine M. Hoover, Assistant Consumer Advocate, Pennsylvania Office of Consumer Advocate, Chair, National Association of State Utility Consumer Advocates (NASUCA) Water Committee and also Chair of the American Water Works Association Public Interest Advisory Forum, stressed that communication to inform and educate consumers should not be confused with public relations. Effective communication is ongoing, not a "once and done" event during a rate case. To develop an effective communication plan Hoover suggested that water stakeholders get baseline information on what customers know and what they want to know and plan from there.

The Honorable Lewis Entz – State Senator, Colorado, emphasized the relationship aspect of getting the message across and getting legislation passed. The Senator recommended focusing efforts on one or two issues and not assuming that elected officials understand your organization's needs. He also suggested: including opposing views in legislative briefings; getting involved at the legislation's study,

development stage; and keeping legislators apprised of the bill's status. He also urged water stakeholders to learn the rules, traditions and practices of the legislative body with which you are communicating. He added, "Get legislators to your meetings, get acquainted with committee staff, 'Bird-dog' your issues until the very end of the session and be sure to thank your legislators."

The Honorable Wayne Allard, United States Senator, Colorado, said the water industry has sizable challenges to address, including more stringent environmental regulations, but also sizable political power to employ in the Congress due to its extensive reach. Senator Allard emphasized the inherent efficacy of an industry that in one form or another touches every American.

Dave Jones, President and CEO, Storm Center Communications, in cooperation with the U.S. Environmental Protection Agency, has initiated a program designed to raise the environmental IQ of the American public via TV collaborative weather reporting that weaves in watershed education. Why do we watch television? Weather is the number one reason. His organization develops on-air products and operates a website meteorologists can access. Their next stop: station KYW in Philadelphia where the Philadelphia Water Department will partner in content development and messaging. Jones offered an addition to Jack Hoffbuhr's list: Make sure messages are consistent.

Regulator and Interagency Cooperation

Introduction

An interactive workshop on Enhancing Interagency Cooperation took place following the symposium in order to continue the informal dialogue between state drinking water administrators and economic regulators that started in St. Petersburg, Florida in March 2002 at the first symposium. The two-pronged purpose of the workshop was to identify interagency coordination problems and promote opportunities for collaboration between NARUC commissioners and staff and State drinking water program administrators and staff. While the former regulate rates and service of investor owned public utilities, the latter have primacy over enforcement of drinking

water quality standards pursuant to the federal Safe Drinking Water Act, amended in 1996.

Collaboration, where it exists, has often centered on small system financial and compliance problems and efforts to either bolster their ability to become and remain viable or to bring multiple entities together to force consolidation with another system. Coordination may be an important condition for a larger system that acquires a troubled one being permitted a grace period to bring the system into regulatory compliance. Groups now forming around water supply/system security may find opportunities to expand their agendas to include other objectives.

The formal portion of the workshop included presentations by David W. Bogan of Robinson and Cole, LLP, and Carol A. Kozloff of the Pennsylvania Public Utility Commission and Workshop Coordinator. Ensuing discussions were jointly facilitated by The Honorable John W. Betkoski, III, Chair, NARUC Committee on Water and Commissioner, Connecticut Department of Public Utility Control and Jay Rutherford, Director, Water Supply Division, Vermont Department of Environmental Conservation and President, ASDWA.

Bogan described a long-running regionalization effort in Connecticut which had as its objective establishing a comprehensive statewide plan to promote the efficient investment in water supply facilities in order to:

- Minimize expenses
- Maximize synergies
- Maintain system integrity

The effort typified the range of potential stakeholders needed to establish a statewide program and regionalization efforts. Stakeholders included legislators, utility commissioners, public health and environmental protection representatives, state water utility coordinating committees, planning councils, municipalities, water utilities, consumer advocates and customers. Reflecting upon a process that began in 1978 and resolved in 2003, Bogan said the “right” answer is one that includes the following:

- Cooperation among public water systems including integration of public water systems
- Integration of water company plans
- Designates and maintains exclusive service areas
- Joint management or ownership of services
- Interconnections between public water systems

Kozloff's presentation highlighted (and many participants echoed) the merits of interagency cooperation to achieve the mutual goal of resolving the troubled water system challenge. In Pennsylvania, Kozloff explained the features of two separate Memorandums of Understanding (MOU), one with the Department of Environmental Protection and the other with PennVest (a low-interest funding authority) to coordinate improved service and facilitate funding for certain troubled systems' improvement projects. In addition, an interagency task force meets regularly to keep open the channels of communication to further maximize resource sharing opportunities.

While in many states, agencies with overlapping or complementary functions may interact informally, they typically do not have a vehicle established to do so regularly in an organized way. Others may be explicitly prohibited from or implicitly discouraged from sharing information. In Florida, the PUC has a MOU with five water allocation agencies, the Department of Community Affairs and the Department of Environmental Protection that weighs in on whether a utility ought to be allowed to expand. Connecticut, Ohio and Delaware are among states that have also formed water planning/coordinating committees.

Legislative innovations and mandates can also bridge gaps between environmental and economic regulators and municipalities and make it possible for a solution to develop that takes into consideration a broader array of stakeholders, costs, opportunities, objectives and outcomes. Although it has been used only sparingly, some PUCs, for example, Pennsylvania, do have mandatory takeover authority to order acquisition of small, chronically troubled systems. Legislation may be needed to help regulators fully address situations involving developers who build without a water supply and leave new homeowners with expensive property that cannot be adequately served,

if at all. In New Mexico, the PUC is compelling developers to prove that they have adequate water rights and “wet water” and to disclose their supply situation to prospective home buyers. In Texas, authority over water utilities has been consolidated. The State administrator for drinking water is responsible for drinking water safety and also sets rates. Unscrupulous developers are a major concern there, too.

Categorical or situation-dependent extension of PUC jurisdiction to municipal systems could be beneficial in resolving problems that extend past investor-owned systems to neighboring municipalities or beyond to an entire watershed region. Municipalities that have divested operation of their systems to contract operators are in effect a private-public hybrid. Some participants felt that regionalization and standardization of regulatory polices could be aided by the existence of a federal economic water regulator akin to the FERC or FCC.

FUTURE DIRECTIONS

Several current issues will continue to confront and confound water stakeholders during the next decade and beyond. Perhaps foremost among them is infrastructure replacement and its associated financial considerations. The need to replace and repair aging infrastructure is impacting small and large systems and their current and future customers. Enhancing security will, in some cases, also result in higher costs to customers. Restructuring in the form of consolidations, acquisitions, mergers, privatization and globalization of the industry is expected to continue. In tandem, increasing environmental and public health regulations, population and economic growth will bring sustainability challenges and as always additional costs. And for all of these reasons, communication and customer education will become even more critical to successful resolution of these issues at the international, national, regional, state and local levels.

When wise men and women converge to collegially discuss issues and their impacts, interesting ideas often emerge. The 2003 National Drinking Water Symposium was no exception. Some recommendations by Symposium speakers and participants were:

- Continue the dialogue among utilities, economic and environmental and public health regulators, consumer advocates and others and work to expand the participation of non-utility stakeholders (Shanaghan, Rutherford)
- Consider incentives for redeveloping urban areas where utilities are already providing service or add impact fees to slow new development (Chapman)
- Enable informal discussion of problems and alternative solutions between utilities and regulators to avoid separate environmental requirements from working at cross-purposes (Benevento)
- Pursue multiple approaches to infrastructure problems including demand-side management, operational efficiency, price sufficiency and coordination along hydrological/watershed boundaries (Shanaghan)

- Employ infrastructure improvement surcharges to encourage quicker reinvestment in infrastructure while allowing recovery for funds used during construction of short term replacement projects (Pape)
- Help small systems by exhaustively evaluating the potential for common management with or without interconnection. Appoint a state small systems broker to bring potentially synergistic systems together (Shanaghan)
- Set priorities using full social cost accounting that includes both external and internal costs, looks across all the actors in society and reflects both quantitative and qualitative values, and only spend where the spending adds value (Raucher)
- Consider security investments to be an extraordinary expenditure and establish a security cost-recovery expert at commissions to handle such matters in separate proceedings with the result only going forward to the full rate case (Genzer)
- Put down the regulatory hammer if systems agree to invest the amount of applicable penalties in their system to bring it into compliance (Benevento)
- Use independent parties to monitor and assess the performance of contract managers, not displaced personnel (Cairo)
- Establish a regulatory framework for small systems that includes a variety of tools to be tailored and applied as warranted (Kozloff)
- Start and sustain communication with customers by finding out what they know and what they want to know and make sure messages are consistent (Hoover, Jones)
- Our thinking is compartmentalized and authority to address issues diffuse; we may need a single water tsar (Chapman)
- Center our thinking on natural systems and create strategies that work with natural systems to better manage the droughts and floods they bring (Chapman)
- Water utilities can grow through more sustainable water supply approaches including demand management and desalination (Wickes)

- The simplest and best tact to improve performance is to use rate of return regulation and give the best performing water utilities a higher return on equity (Hansen)
- Utilities, regulators, consumer advocates must all ask themselves, “What can I do? We are the water tsars.” (Betkoski)

Dialogue on these challenges continues as Symposium co-sponsors discuss development of a collaborative plan for future action on matters of mutual concern, interest and compatibility. Further consideration of these and other emerging issues will certainly continue during the next Symposium set to take place Oct. 30 through Nov. 3, 2005 in Colorado Springs.