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CONTENTS

President's Message	3
Annual Conference Wrap-Up	4
Annual Conference Photos	7
New Members	11
1995 Eastern/Midwestern	
Customer Service Conference	11
1994 Honorary Member Award	12
1994 Management Innovation	
Award Contest	14
NAWC History: 1895-1920.	
by T. Ward Welsh	16
Remarks at the Deloitte & Touche	00
Northeast Public Utility Conference.	
by L. James Barr	23
The Clean Water Industry, Change,	20
Customers and Choice.	
by Hampton D. Graham	26
The Reauthorization of the SDWA-	
Costs and Risks by The	
Honorable Diane K Kiesling	78
The Resutherization of the SDWA. Costs	
and Ricks hu lamas B. Croff	21
and Risks, by James D. Oror	31
NAWC Centennia,	12
Municipal Heiling Valuation, Ecom	33
Municipal Othery valuation: From	
the Municipality's roint of view,	24
by James S. Kelly	34
Water/Wastewater Privatization,	
by Kobert W. Poole	33
1994 Water Utility Compensation	
and Benefits Survey Kesults,	
by Gerry Stoffel	37
Safe Drinking Water: At What Price!,	
by Peter R. vanDernoot, with	
Nancy Jorgenson	39
Executive Director's Report	43
Regulatory Relations Report	46
Recent Regulatory Decisions	49
Federal Agency Notes	51
Quorum Call	53
Tax Adviser	54
Pipeline to Small Companies	55
Gerald M. Hill (1941-1994)	57
Company Profile: Bridgeport	
Hydraulic Company	58
Corporate Changes	62
Etcetera	65

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The President's Message

by Jack E. McGregor

The rugged desert scenery provided a breathtaking backdrop to NAWC's 1994 Annual Conference in Scottsdale, Arizona, held the first week of October. Appropriately, in NAWC's 100th anniversary year, our

theme was 21st Century Excellence, focusing on four components: legislative and regulatory excellence, customer service excellence, employee excellence and financial excellence.

As this is my first correspondence to you as president of the association, I'd like to take this opportunity to express my sincere appreciation to the over 400 members whose participation made the conference such a great success. A special note of thanks should go to our speakers and the panel moderators, all of whom did such an outstanding job in covering a broad range of topics so concisely and informatively.

The overriding message of the conference was that we should do a better job of relating to all of our constituencies. In that regard, I'd like to suggest that we begin by focusing on the legislative arena. While the water utility industry faces a number of issues, the most pressing remains reauthorization of the Safe Drinking Water Act. We as an industry made significant progress in 1994 by forging a coalition of 12 legislative, regulatory and trade associations—each with its own set of issues and concerns—to propose significant changes in the SDWA that would ensure safe, reliable drinking water at a reasonable cost to our customers.

Though political considerations killed the resulting compromise bill, HR 3392, sponsored by Congressmen Jim Slattery and Tom Bliley, the new year presents a tremendous opportunity to benefit all our various constituencies by advocating a new and improved version that will reflect more effectively the water utility industry's position on this issue, particularly as it relates to the "unholy trinity" of relative risk assessment, the taking of private property and unfunded mandates. The association's intention is to work with the coalition to introduce, early in the 104th Congress, a new version that returns to many of the original positions advocated prior to the compromise bill, including ensuring that risk is extensively considered in the standard setting process.

To accomplish this goal, however, we need to get more involved. Developing sponsorship in Congress is vitally important, and nowhere is this more evident that here in

> New England. One of my goals this year is to convince the Connecticut congressional delegation of the legitimacy of our position and the need to sponsor this bill. I urge all of our members to do the same in their home states and regions. Government relations is <u>not</u> a spectator sport.

> The new year means a fresh start, with a new Congress and with its new legislators and their staffs. We need to bring them up to speed on our position and work with them to develop the kind of relationships that will lead to their active support. There are a number of ways to

do this:

- Send congratulatory letters to the returning incoming members, and include a brief mention of the importance of reforming the drinking water law.
- Visit your Congressional representatives in their local offices. Travel to Washington and meet with them there as well.
- Get to know your legislators by inviting them and their key staff members to your filtration plants for a reception and tour. Impress upon them the need for practical solutions to the problems we face in meeting the current SDWA requirements.
- Get your employees involved in the process as well. As voters and constituents, they can be a strong force in advocating the company's position to their representatives in Washington.

The new year promises to keep us all busy on other fronts as well, such as the issues surrounding the pending adoption of the Information Collection Rule and our continuing efforts to repeal the tax on contributions in aid of construction (CIAC). I look forward to reporting to you on these and other matters, and I am delighted and honored to serve you as president as NAWC begins its next century of excellence.



98th Annual Conference Wrap-Up

The Scottsdale Princess was the site of NAWC's 98th Annual Conference. Sunny, blue skies and picturesque stretches of desert provided the perfect backdrop for NAWC members and friends to gather and tackle the topics relating to the Conference theme of "21st Century Excellence."

The Conference got into full swing on Sunday, with a full slate of tours, the tennis tournament and a Southwestern Celebration and Dinner. Guests at the dinner were quickly eased into the southwestern environment, viewing works by Southwestern artisans, listening to relaxing music, enjoying delicious food and, most importantly, reuniting with old friends and meeting new friends.

The program began on Monday morning with a presentation by Barry Goldwater, a greeting by Conference Chairman Jack McGregor, greetings from AWWA, NARUC and the NARUC Water Committee and a presentation to NAWC's latest Honorary Member. Some of the highlights of the 1994 Conference are summarized as follows.

Innovative Ratemaking

The Monday afternoon general session was a panel on innovative ratemaking, featuring as moderator the Honorable Reginald Smith from the Connecticut Department of Public Utility Control and as panelists Jan Beecher, National Regulatory Research Institute; the Honorable P. Gregory Conlon, California Public Utilities Commissioner, and Al Pak, San Diego Gas and Electric Company.

Commissioner Smith called on Jan Beecher to start off the session by saying that there is government regulation of the water industry at several levels—EPA, Department of Health Services, Public Services, Public Service Commission, etc. She said that regulation hinders regulatory oversight and that changes were needed in market orientation which includes redefined roles with industry specific solutions. These solutions should be proactive and have a long term focus.

Commissioner Conlon from the California Public Utilities Commission wants to implement performance based regulation in the water industry. This would eliminate the need for traditional rate cases. Performance standards would be developed to measure customer satisfaction, safety and reliability. Revenue increases would be tied to CPI adjusted by productivity gains. Utilities would keep any profits from productivity gains above the benchmark. Commissioner Conlon believes these changes in regulation will lower the cost of service to the customer as they have in England and Norway.

Al Pak of San Diego Gas and Electric stated that the electric industry became too bloated under the traditional regulation. He believes that utilities should be rewarded for excellence with a higher rate of return rather than a lower rate of return. Traditional regulation has rewarded poor performance with higher rates of return. He cited the need to decouple sales and profit but to tie profits to cost controls. He concluded by stressing that there should be service indicators to ensure quality service and that financial incentives for excellence should be continued.

Customer Service Excellence— Views from Outside the Utility Industry

Tuesday morning's panel, moderated by psychologist Dr. George Gercken, focused on customer service excellence-outside the industry. Larry Reams of Cornerstone Controls urged the group to develop "raving fans"-not just satisfied customers. Encouraging the use of emerging technology, he quoted Mark Twain's words, "Even if you're on the right track, you get run over if you just sit there." By showing real value to customers, Reams reported his company has increased business 20-30% and increased customer delight, without adding any new employees.

William O'Donnell of San Pellegrino, a bottled water company, acknowledged the historical tension between his industry and the water utility industry, suggested that both industries could be successful through strategic planning. He also emphasized the importance of educating front line employees, being pro-active with customers, and having officers talk to the people who use the product.

Pepsico representative Michael Tomlinson opened his remarks by stating that we were his customers and that his industry measured its progress against us. In answering the question, "Where is the utility industry going?," he suggested two predominant trends: 1) to provide value which builds customer loyalty; and 2) to reduce costs. Tomlinson also provided some candid observations about the water industry's image, stating that he does not drink tap water, that we don't tell the story, that we need to provide value to our customers, and that people simply do not understand. He urged us to be prepared for deregulation by developing a vision that allows our employees to listen to our customers, resolve problems, optimize resources and maximize profits.

Ann McLaughlin

Former United States Secretary of Labor, Ann McLaughlin, spoke on "Employee Excellence" and some of the changes that will affect the way corporations do business in the 21st century. There is no longer a good frame of reference worldwide. Changes are taking place so fast, it seems almost impossible to stay abreast of the changes, much less move ahead. Competitiveness is being totally redefined. Worldwide communications has given us a global ringside seat on all of the problems of the world. Change is immediately visible. Economic and marketing changes are taking place worldwide that make future business forecasting exceedingly difficult.

The greatest challenge facing America is its own domestic problems. Think about the labor pool in the 21st century and the technical and educational background needed by employees to adjust to the various skills that will be required. The American dream is getting more and more difficult to pass along to succeeding generations. There will have to be changes in the way we work. The customer expects and deserves better service. Corporations will have to hire those persons who can meet the standards of higher performance. Extensive training will be necessary to bring employees to higher performance levels. More decision making will be made on a lower level. All employees should be empowered to higher levels of responsibility and decision making. Teams should be developed and interaction should be the norm on these teams.

Changes will take place in the demographics of the workplace. There will be a higher percentage of women in the workplace. Employees will be more mobile and less loyal. The average age of the worker at the turn of the century will be 47. Fewer and fewer non-skilled jobs will be available. Too many people are entering the work force today without the knowledge and skills necessary to meet demands of a high-performance, high-value work place. The majority of these people will become unemployable in the 21st century.

Corporations have to become value driven, establishing lifelong learning skills for employees. Corporations will have to redefine employer/employee relationships and become more committed to their people. Family-friendly policies will have to be developed due to the recognizable changes of the family. Old company policies may no longer apply. In the 40's, workers would adapt to the machinery and the workplace. The roles are now reversing. The workplace should now adapt to the worker. On the other hand, corporations will have to develop a tougher work environment. "Don't hire if you can't fire" could be corporate policy in the 21st century.

The American education system is now

polarized. There are now forty million people in this country who are illiterate. Educational values that shaped our past no longer apply. Changes to the way we educate the youth of this country have to be implemented now. Redefine and rediscover who we are and where we are going, develop new employment security based on employability, and let's hold on to the American dream.

Diversity

John Merchant of the Connecticut Office of Consumer Counsel spoke on diversity in the workplace. Diversity is more than a word. It is an event, an occurrence and a reality. Companies will have to develop a method to interface and interact with the minority community, whether it be female, racial or otherwise.

All of our forebears came over by boat, and none of us are going to go back. It would make sense that we should all be comfortable. Most of us have a common goal, and that goal is happiness. In order to attain that goal for its employees, companies will have to establish leadership to think and act in a diversified manner to provide better relations with women, blacks and other minorities. The workforce of most water companies does not reflect the companies' customer base. Customers are part of the community, the town and the state in which they operate. People seem reluctant to get to know one another, vet they have to start. Think about the word racism. Is there room for racism in the lives of the people in this society? The word racism should be removed from the dictionary. Companies have to become more involved in the minority community in order to eliminate racism.

Look at the demographics of your own organization and determine who within the organization is on the fast track. Are there any women? Any blacks? No law says that you have to have women or blacks or Hispanics on your fast track. Companies should provide the level of leadership that would place these individuals on this type of track.

Diversity will not affect anyone's bottom line, nor will it offset the capacity to provide the level of service being delivered to all customers. Diversity will not hurt the functioning of a company to any extent.

To start the process requires leadership (continued next page)

Conference Wrap-Up, continued

and the skills of senior management. A way has to be found and accomplished to motivate and reach out to minorities within this country. Corporate America can no longer hide when it comes to diversification. Diversity can be called many things; however, the best name for it should just be "America."

Shareholder Value

Thursday morning, New Jersey Board of Public Utilities Commissioner Edward Salmon moderated a discussion of shareholder value. Bill Patterson, managing director with Smith Barney's utility group, said in the current merger and acquisition environment, transactions between "strategic buyers" have re-emerged, replacing the "financial buyers" that abounded in the 80s.

The water industry has significantly outperformed the other utility groups in the last 12 months, Patterson said. "As a result, many traditional investors in electric and gas stocks are taking a renewed interest in the water industry."

He noted that most water utilities have low growth rates in their core markets, high dividend payouts, reduced allowed returns on equity, pricing constraints from regulators and high ongoing capital requirements.

Patterson named strategies that water companies can use to enhance shareholder value:

- stay in a familiar business, such as water and related services;
- make prudent acquisitions (but recover acquisition costs), create synergies through operating and capital cost savings (but retain the cost savings),
- and pursue opportunities for privatization and public-private partnerships.

Edward Tirello, senior global utility analyst with NatWest Securities, has covered the utility industry for 25 years. "Shareholder value is like space on the supermarket shelf. Analysts have limited time: they must focus on several industries. Water gets 'short shrift' because the industry is not active enough."

Tirello said that a large component of shareholder value is management action: visiting, and maintaining frequent communications with, analysts and portfolio managers. He suggested that water companies need to institute active investor relations programs: Responsibility for investor relations should be clearly delineated. Some companies engage consulting firms specializing in investor relations to guide their efforts and aid interface with the financial community.

"What does the investor want?," asked Tirello. "Earnings growth and dividend growth—not high payouts." Tirello added that the higher payout ratios that characterize water companies are "not as bad" since competition is limited.

"Regulation in America is punitive," Tirello said. "I'm always trying to find the least negative regulatory climate." He encouraged the audience to think about regulation in non-traditional ways: "Get away from return-on-equity, into price-capital regulation."

Managements need to get more aggressive to be more competitive. Cut costs: The savings automatically drop to bottom line. With the lack of competition, companies should be able to earn their authorized rates of return by cutting costs and using price-capital regulation. "Ironically, the utility industry's earning ability—assuming it's just at the ROE authorized has been substantially better than almost any other industrial business," Tirello remarked.

Tirello said the water industry, and the companies themselves, are too small. To get more recognition, he advised, "You have to step up your acquisitions. Bulk up. You don't have a choice."

Acknowledging that outright acquisitions may be difficult to do because municipalities may not want to sell their systems, Tirello suggested that companies seek long-term leases or management contracts. "Be creative." He urged the audience to think about strategic alliances and partnerships, whether it's with domestic or foreign companies.

People are looking for "specific types of securities: environmentally safe utilities. They don't know it yet . . . you have to tell them. Value is created in people buying and knowing about the company," said Tirello.

Paradigm Shifts in the Water Industry

At the final session of the conference,

Alan Manning, chief executive officer of EMA Inc., introduced six "paradigm" or rule shifts that can make companies more productive and efficient:

- Total productive maintenance is replacing operations and maintenance as two separate organizations;
- Planned maintenance ("Fix it before it breaks") is supplanting reactive maintenance ("If it ain't broke, don't fix it");
- Unattended operations—the optimum use of automation—is edging out labor intensive attended operations;
- A flexible work force where "everybody does everything" is taking the place of work separated by skill and craft;
- There's a move from technology as "risky" to technology as strategy. Manning cited computer networks as a tremendous advance, but cautioned that networks must be planned and must be accompanied by a rethinking of the way the organization does business;
- From organization as structure to organization as strategy. "We need to start giving up control and allowing people to think . . . and function as an orchestra."

He cited a case study of Arizona Public Service Company, in which a company used the paradigms to achieve dramatic improvements in customer focus and profitability, and ensure the company's survival.

Manning said these new paradigms are keys to successfully competing in the changing world water marketplace, and are already in use by several leading European companies in the water industry.

Final Notes

Other highlights of this Conference included a Wednesday night barbecue– cowboy style, a successful golf tournament using the TPC Scottsdale Course and the first NAWC Expo. As attendees prepared themselves to return to their homes, more than a few were heard to say, "See you in New Orleans," a reference to NAWC's 99th Annual Conference, to be held at the Hotel Intercontinental in New Orleans, from October 29 to November 2.

Note: Thanks to the NAWC Public Information Committee for its contributions to this article.



Arizona's own Barry Goldwater helped open the Conference.

The Honorable Charles Hughes, Chairman of the NARUC Water Committee.





The Honorable John Merchant.







- AWWA President-Elect Karl Kohlhoff.







Alan Manning



(I to r) Edward Tirello, Eugene Owen, The Honorable Ed Salmon and Bill Patterson.



(I to r) The Honorable Reginald Smith, Janice Beecher, The Honorable P. Gregory Conlon and Al Pak.



Rich Tompkins presenting a certificate of appreciation to Gail Brady, outgoing chairman of the Accounting Committee.



Rich Tompkins presenting a certificate of appreciation to Walter Brady, outgoing chairman of the Employee Relations Committee.



Rich Tompkins presenting a certificate of appreciation to John Alexander, outgoing chairman of the Small Companies Committee.



Rich Tompkins presenting a certificate of appreciation to John Isacke, outgoing chairman of the Government Relations Committee.



Rich Tompkins presents a water meter bookend as thanks to Bill Sankpill. Mr. Sankpill will be retiring from the Missouri Public Service Commission.



Rich Tompkins presents a certificate of appreciation to Jim Good, former Director of Government Relations for NAWC. Mr. Good is now a Vice President with California Water Service Co.



Rich Tompkins, past president of NAWC, passes on the gavel to new president Jack McGregor.



Jack McGregor presents a gift to outgoing president of NAWC Rich Tompkins, in appreciation for his work as president.



Rich Tompkins presents a placque to Bill Holmes, in recognition of Mr. Holmes' service on NAWC's Executive Committee.



Carol Allen, of the Pennsylvania Utility Commission, and Fred Ottavelli, of the Washington Utility Commission, at the NAWC Expo.



A sculptor displays his craft at the Southwestern Celebration and Dinner.



 A sand painter at the Southwestern Celebration and Dinner.



A musician at the Southwestern Celebration and Dinner.



 A musician at the Southwestern Celebration and Dinner.

NAWC-ers in their finest western attire, enjoying the Reception and Dinner at the Crown P Corral.



WELCOME TO . . .

Our Newest Member Companies

Back Creek Valley Utilities, Inc. Gerrardstown, WV

Bright Acre Water Co. Kingston, NY

Chaparral City Water Co. Fountain Hills, AZ

Jensen Water Co. Cabazon in Riverside County, CA

Lake Suzy Utility, Inc. Lake Suzy, FL

Mt. Charlie Water Works, Inc. San Jose, CA

Red Mills Water Co. Port Arthur, NY

Rogina Water Co. Talmage, CA

SB Water Co. Cherry Hill, NJ

Scotsdale Water & Sewer, Inc. Fayetteville, NC

Seaview Water Co. Longport, NJ

Swann Lake Water Corporation Huntington, NY

Valley Water Utility Co. North Pole, AK

Our Newest Associate Members

Wiley J. Archer Archer & Associates Providence, RI

Herbert Boyer Water Privatization Services New York, NY

Jorge A. Caballero Deloitte & Touche Parsippany, NJ

Peter Conner Cleanwater Ozone Systems Fort Wayne, IN

Rick DaSilva DaSilve Coatings Co., Inc. Farmingville, NY

Bruce Edelston Georgia Power Co. Atlanta, GA

James F. Grotton Everett J. Prescott, Inc. Concord, NH

Frank J. Hanley AUS Consultants–Utility Services Moorestown, NJ

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Brian E. Marshall Cathodic Protection Services/Water Works District Springfield, NJ

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Paul R. Moul P. Moul & Associates Cherry Hill, NJ

Jeremiah O'Connor Nat West Advisory Group New York, NY

John F. Skadberg Pizzagalli Construction Co. South Burlington, CT

Joseph N. Schmidt, Jr., Esq. Drinker, Biddle & Reath Princeton, NJ

John A. Stann A.G. Edwards & Sons, Inc. St. Louis, MO

Michael R. Thomassen American Express New York, NY

Jeremy N. Townsend Stewart Smith Southwest Inc.

Stephen L. Wilson Deloitte & Touche Houston, TX

NAWC's 1995 Eastern/Midwestern Customer Service Conference May 22-24, 1995

Annapolis, MD

Start making plans now to attend the 1995 Eastern/Midwestern Customer Service Conference, May 22–24 at the Annapolis Marriott in Annapolis, Maryland. Planned topics include customer expectations, conservation programs and customer service training, as well as the time-tested Idea Exchange Luncheon and Fred Eckardt Memorial Open Forum. These topics, combined with the beauty of the Chesapeake Bay, result in a program that you will not want to miss. For more information, call Jean Lewis at NAWC, 202/833-8383.

NATIONAL ASSOCIATION OF WATER COMPANIES HONORARY MEMBERSHIP AWARD-1994

presented to Chester A. Ring, 3rd, by J. James Barr, at the 1994 NAWC Annual Conference



NAWC Chairman of the Board of Directors J. James Barr (r) with Honorary Member Chet Ring and his wife Joan.

The person selected this year for the prestigious award of Honorary Membership in NAWC has been an icon in the water industry for over 40 years.

I would guess his first introduction to water can be attributed to his birthplace in a large logging town on the Penobscott River. He never lost his New England accent and at times it's a little hard to understand him—just ask his secretary who spent 27 years trying to figure out what he was saying during dictation. Nevertheless, there is no mistaking this awardee's dedication and devotion to the water utility industry.

He was an only child and was brought up to be a true gentleman—a person who showed his happiness and contentment with life by whistling . . . always a smile for everyone, always a joke to tell. This man can find humor in any situation, a lesson I'm sure we could all benefit from to reduce our stress level—and as an engineer, he was never without his trusted and dependable friend: his slide rule. One would never find a calculator on his desk. Caring and considerate by nature, every year this man would sent his mother roses on HIS birthday—to thank her for giving him life.

As we grow and progress from infancy into adolescence, it has been well documented that our life is pretty much defined by the time we reach the age of seven, and we spend the rest of our life following that chosen path. By the time our awardee was seven, he was glancing through Fortune magazines, mesmerized by the engineering designs on the front of some of their covers.

Following graduation from the University of Maine in 1950 with a Bachelor of Science Degree in Civil Engineering, this year's awardee began his water works career with the Pitometer Associates in Pittsburgh as a Field Engineer.

In 1952 he joined the staff of the American Water Works Service Company in Philadelphia. He went through the Cadet Engineering Program, went on to work as a Construction Inspector and then became Assistant Chief Distribution Engineer. At American Water Works Service Company, he was considered the company's "transmission main specialist," travelling across the U.S. to all subsidiary locations solving water transmission problems. When he travelled, he was known for going out of his way to find a good meal in every small town. Find a restaurant with a good salad and he was a regular customer!

It was while he was in Pittsburgh on assignment with American Water Works that our awardee met and married his partner for life—a partner not only at home, but on the golf course as well! Their first encounter in an A&P led to a lifelong commitment that produced a family with four children, the oldest son carrying on the tradition by becoming the 3rd generation engineer.

In 1959, our honoree left Philadelphia, and the American Water Works Service Company, and headed to the Garden State. There he accepted a position at Plainfield-Union Water Company as Chief Engineer. Bob Kean fondly remembers the first time he met with our awardee, who was late for their meeting at the Park Hotel. Bob said it turned out that our awardee, with his characteristic New England accent, kept asking people how to get to the "Pack" Hotel.

In 1961 the Plainfield-Union Water Company merged with the Elizabethtown Water Company and he became Chief Engineer of Elizabethtown. In 1967, he went on to become Vice President of Operations, and in 1978 he was elevated to the position of Executive Vice President of Elizabethtown Water Company, joining Bob Kean and Henry Patterson in the top management of the company. In 1987, our honoree became their new President and served in that capacity until retiring in 1992. Henry Patterson fondly recounts an early travelling experience with our awardee. It was a flight by prop plane to an AWWA Conference in Toronto. "Lucky for him the plane made frequent stops," remembers Henry. Despite his earlier aversion to airplanes, he went on to become a seasoned traveller, travelling to most of the 50 states. He also traveled to South America, Europe and Russia, sharing information about American water treatment methods and technology.

In 1975 our awardee was appointed by Russell E. Train, then Administrator for the United States Department of Environmental Protection, to a 15-member committee of the National Drinking Water Advisory Council.

As an officer of AWWA, he attended

the conference of the International Water Supply Association in Amsterdam—his wife excitedly accompanied him. One for not extending or prolonging business trips, he completed his business in five days rather than seven so he changed their plane tickets to return home earlier than expected. Needless to say, his wife was not a happy camper. It's rumored that at this point Elizabethtown Water Company's Board of Directors was contemplating holding its monthly Board meetings at Newark International Airport to accommodate his busy travel.

When he wasn't travelling, he was being recognized for his dedication to the industry:

In 1974 our awardee received the New Jersey Section AWWA "Man of the Year" Award. This award is given annually to the one individual who has given outstanding service in the water works field. In 1993 the Water Resources Association honored him with the Samuel S. Baxter Memorial Award for outstanding contributions to the water industry.

During our awardee's tenure with Elizabethtown Water Company, he saw the company mature and grow through acquisitions and population growth. The company's franchise area grew and this man managed the awesome task of keeping the water flowing. Keeping pace with growth meant expansion . . . expanding the treatment plants, expanding the operations center, expanding the service territory, and expanding the computer network.

As we have described, our awardee's credits extend well beyond the boundaries of Elizabethtown Water Company and extend well beyond the United States.

His "Presidency" did not start nor stop at Elizabethtown. He was also President of The Mount Holly Water Company, a subsidiary in the E'town family; he is the only person to have served as president of AWWA and NAWC. He was President of the American Water Works Association, President of the Water Resources Association, President of the National Association of Water Companics, President of the Fanwood-Scotch Plains YMCA, and President of the Fanwood-Scotch Rotary Club. It was when he wanted to throw his hat into the ring for this Presidency that his wife stepped in and put a lid on it!

His first venture at writing papers for publication goes back to the third grade when he won the Humane Society Award for a composition about his dog, Bingo. From then on, he was on a roll. As a member of AWWA since 1957, he authored numerous articles and papers about water works operations. He has served on various chapter committees, and was active on the national level. He became a trustee of the New Jersey Section AWWA, held the office of vice chairman and became chairman in 1969.

In addition, he is a licensed Professional Engineer and past member of the State Licensing Board for Water Works and Waste Water Operations in New Jersey.

He is also active in community affairsas previously mentioned he served as President of the Fanwood-Scotch Plains Rotary Club, President of the Fanwood-Scotch Plains YMCA, served as a member of the Union County Chamber of Commerce, was a member of the Muhlenberg Regional Hospital Building Fund, and sat on Plainfield Country Club's Membership Committee.

For R&R, our newest Honorary Members has only one form of recreation-golf, a love no one will dispute and one that's conveniently and happily shared with his wife and daughter. Our awardee had an exciting experience in 1987 as a marshall for Plainfield Country Club when the Club hosted the Women's U.S. Open Golf Tournament. He and his wife accommodated two international golf pros at their home-one from France and one from Spain. Word has it that evening golf talk at home with the women proved very enlightening and improved his handicap tremendously. In preparation for his retirement in 1992, he purchased a home closer to Plainfield Country Club where when the sun rises, our awardee can frequently be seen on the greens, using his infamous slide rule to determine the best route to the hole. Some people believe he was born with a slide rule in one hand and a golf club in the other! When asked who the better golfer is in the family, one can only go to Plainfield Country Club and look at the six Women's Club Championship Awards on the wall all under the name of Mary Ring. Her father taught her well.

As you must have all guessed by now, our newest Honorary Member to NAWC's 1994 Hall of Fame is Chet Ring and his first lady, Joan. Ladies and gentlemen, please join me in welcoming them.

1994 Management Innovation Contest



Ron Dungan presents Management Innovation Award to Kathleen Davis of New Jersey-American Water Co.

- 1- Customer Welcome Wagon New Rochelle Water Co.
- 2– Marketing Water Program The Connecticut Water Co.
- 3– Conservation PSAs Kentucky-American Water Co.
- 4– Partnering With Schools Today . . . Citizens Utilities Co. of IL



Ron Dungan presents Management Innovation Award to William Kuzia of Citizens Utilities Co. of Illinois.

This year, there were 10 entries in NAWC's Management Innovation Contest. Winners were selected by a committee comprised of Ron Dungan of General Waterworks Co., Bob Luksa of Philadelphia Suburban Water Co. and Floyd Wicks of Southern California Water Co. The committee selected three winners. New Jersey-American won for its submission "Building Consensus Through Public Information," submitted by Kathleen A. Davis. Southern California Water Co. won for its submission "Employee Suggestion Program," submitted by Randell J. Vogel, and Citizens Utilities Co. of Illinois won for its submission "Partnering with Schools Today," submitted by William Kuzia.

A list of all entries submitted follows. If you are interested in receiving copies of the printed materials submitted with any of the entries, please send a list, by number, of the entries that you would like, to Mike Horner, NAWC, 1725 K St., N.W., Ste. 1212, Washington, DC 20006.



Ron Dungan presents Management Innovation Award to Marilyn Florance of Southern California Water Co.

- Water . . . Our Most Precious Resource Philadelphia Suburban Water Co.
- 6- Water Quality Summary Report Citizens Utilities of IL
- 7– Summary of Multiple Billing California Water Service Co.
- 8– Building Consensus Through Public Information New Jersey-American Water Co.
- 9– Water Loss Control Southern California Water Co.
- Employee Suggestion Program Southern California Water Co.

1995 NAWC WESTERN CUSTOMER SERVICE CONFERENCE

WEDNESDAY, MARCH 22, 1995

Registration
Introduction & Welcome NAWC and CWA
Training the Trainer Dan Dell'Osa & Diane Rentfrow
Coffee Break
How rate design happens Stan Ferraro
Lunch-Idea Exchange
Marketing Your Organization for Success Georgia Messermer
Water—The Miracle of Delivery Moderator: Jim Good Ed Means, Metropolitan Water District Steven Kasower, Dept. Water Resource
Coffee Break
Asking the Questions Randy Vogel
Cheesecake Factory

THURSDAY, MARCH 23, 1995

7:30-8:30 a.m.	Coffee
8:30-10:30 a.m.	Can You Picture Service?
	Jason Lavin & Pate Schuh
10:30-12:00 p.m.	Brunch
TO CAN DOLLAR MANAGE	Commissioner J. Knight (invited)
	CA Public Utilities Commission

For hotel accommodations, a block of rooms is available at a rate of \$109, single or double, with an additional person charge of \$20. NAWC's room block is held until March 1, 1995. Please reserve early. To reserve, contact:

> Holiday Inn Crowne Plaza 300 North Harbor Dr. Redondo Beach, CA 90277 310/318-8888

CONFERENCE HIGHLIGHTS

As companies move toward the year 2000, their employee numbers will shrink but those remaining employees will be better trained. Is your company going to measure up in the future? Outrageous, thrilling, cohesive are expletives which outline the program "Training the Trainer" presented by Dan Dell'Osa and Diane Rentfrow from Southern California Water Company. This university concept written by Diane Rentfrow escalates the water industry's commitment to excellence in training and assures our industry a place in the 21st Century.

Stan Ferraro with California Water Service Company will lend his expertise on "How Rate Design Happens" a program to facilitate the removal of shadowy clouds that obstruct our understanding of rate design. Marketing Your Organization For Success by Georgia Messemer is entertaining as well as instructional on sound customer service response.

Is there anyone in California who really understands how our water gets to where it is going? Ed Means, Chief of Operations, Metropolitan Water District of Southern California will provide information on how the Colorado River and the State Water Project mix to deliver our purchased water in Southern California while Steve Kasower, Dept. of Water Resources will discuss the Bay Delta, The state water project and water re-use to provide the mix of purchased water and its effect statewide.

Jason Lavin and Pate Schuh will challenge our imagination with "Can You Picture Service?" One more segment designed to utilize and improve our customer service skills. Commissioner Jessie Knight of the California Public Utilities Commission has been invited to address the participants at the brunch which will conclude our event.

The Conference will conclude with a brunch at 10:30 a.m. on Thursday. This will feature awards given to the submittors of the best ideas at the Idea Exchange. NAWC Customer Service Conferences are always praised for the wealth of information that they provide as well as for sending participants back with a renewed sense of enthusiasm for their work. Make plans to attend today.

Who should attend this year's 1995 Customer Service Conference? Anyone willing to learn, accept new ideas, explore and assimilate better ways to do one's job. The cost will be \$200 per person, you can make reservations by contacting: Jean Lewis, National Association of Water Companies, 1725 K Street, N.W., Ste. 1212, Washington, D.C. 20006 (202) 833-8383. Hotel accommodations need to made directly with Holiday Inn Crowne Plaza, 300 North Harbor Drive, Redondo Beach, CA 90277 (310) 318-8888.

REGISTRATION FORM: NAWC WESTERN CUSTOMER SERVICE CONFERENCE

MARCH 22-23, 1995

Registration Fee: \$200 for NAWC Members, \$250 for Non-NAWC Members.

Company	Name	Title	
Street Address		City, State, Zip	
Telephone Number		First Name for Badge	

Please enclose payment with your registration form. Make checks payable to NAWC Western Customer Service Conference, and mail to National Association of Water Companies, 1725 K St., NW, Ste. 1212, Washington, D.C. 20006, before March 5, 1995. Refunds will not be issued for registrations canceled after March 5, 1995.

WINTER 1995

NAWC History: 1895–1920

by T. Ward Welsh

To celebrate NAWC's Centennial, Ward Welsh, formerly of American Water Works Service Co., has written this history of NAWC's first quarter-century. The next three quarter-centuries will be addressed by Mr. Welsh in the next three editions of WATER.

What a different world confronted those few dozen men from 16 small Pennsylvania water companies who gathered in 1895 at a mid-state mountain resort to form the business association that was to become the National Association of Water Companies.

The United States was a smaller nation then: 44 states with a population of about 70 million, a quarter of what it is today. And about 35 percent of those people lived in just five states: New York, Pennsylvania, Illinois, Ohio and Missouri.

Roads were unpaved. Horse-drawn wagons, carriages, trolleys and steam trains were the way you got around. Young Henry Ford was just starting to tinker in Detroit in an experimental gasoline-powered carriage. You got news by word of mouth or from newspapers; there were no telephones or radios. Home heating was by wood and coal; lighting, by oil lamp, though piped gas was fueling lamps and streetlights in America's more progressive communities. Most people outside the cities got their water from wells and went out behind the house to use the privy.

Democrat Grover Cleveland had just been elected president for the second time, the only president to serve non-consecutive terms. The economy was in the dumps: between 1893 and 1897 more than 15,000 businesses failed--including many fledgling water companies. A sevenyear-old organization, the American Water Works Association, was beginning to establish operating standards for public suppliers. (Millions of people in England and Germany drank filtered water, but only a few hundred thousand Americans in scattered cities enjoyed that protection.)

Focus on Fire Protection

There were probably 600 public water systems in the United States in 1895, most of them established in the 30 years since the Civil War. The driving force behind these utilities was not household convenience but fire protection and the need to water the streets to control dust. All across the country entrepreneurs-including pipe suppliers-were raising money to put together water systems for communities. Often a catastrophic downtown fire triggered business support for the venture. And invariably the new systems were introduced with great fanfare involving parades, speeches and dramatic demonstrations of fire flows with pumps throwing plumes of water high over the city park or lake. The message was that runaway fire would no longer be a major threat to the community.

The Greenwich (Connecticut) Observer noted when the public water supply came on line there: "The advantages of this enterprise cannot be overestimated. Insurance rates will fall 50 percent; dust on the avenues will be no more and the fear of disastrous fires will be something of the past."

Systems a Mixed Bag

The systems were a mixed bag: some fairly sophisticated, others merely tacked together to bring water into town as quickly and economically as possible. In 1916, the president of the Pennsylvania Water Works Association would look back, observing:

"In most towns, the matter of supplying water was left to enterprising citizens. They were good bankers, lawyers and merchants but many were mighty poor builders of water plants. They were conservative men, especially so regarding the money they themselves had to put up. They were going to pay no engineer's commission on so trifling a matter as building a water plant. It was merely a matter of digging a hole on some hill, pouring water into it, and laying some pipes to conduct the water to town. In 1896, there were some well-engineered plants, but a large percentage of the works in the state had been constructed in the above method." Subsequent managements would pay dearly in headaches and capital to rebuild these systems, he said.

Many a start-up company failed because homeowners were slow to accept untreated surface water. Their own wells were fine, thank you. In fact, most early public supplies could not match well water for clarity and taste. And by the turn of the century, the safety of those public supplies was suspect in many cities.

As if these business challenges weren't enough, Pennsylvania's private water suppliers felt threatened by the very act that provided for their franchises. The General Corporation Act of 1874 had authorized the formation of companies to supply water to the public and gave such companies exclusive geographic franchises. But in 1887 Pennsylvania's legislature passed an act which the State supreme court construed to repeal that exclusive right, at least as it applied to new companies. Later, in what came to be known as the Millvale Case, the court held that the Act of 1874 precluded only the incorporation of competing private companies and did not prevent municipalities from building water works to compete with existing private companies.

Ruling Could Undo the Industry

The water suppliers who congregated at Cresson Springs in 1895 knew that no community that was being taxed to support a public system would voluntarily support a for-profit one. Left unchallenged, they feared, this ruling would render their securities—and their very enterprises—worthless.

And so they came-by stagecoach or rail-to the beautiful 1,000-room Mountain House at Cresson Springs, built in the 1860s by the Pennsylvania Railroad as a summer resort and health spa for the well-to-do. High in the Allegheny Moun-



the sorth 1,000,000 gallons of pure waver every iventy; increased failed the water is constantly moving. The station to the city of Plainfield. There are twenty for hours, and their test tubes showing no decided institute up to within 16 ft. of the water state to the set of the outer test tubes showing no decided institute up to within 16 ft. of the water state to the set of the outer test tubes showing no decided in the city of Plainfield. There are twenty failt, water one hours out the city of the state of the outer test tubes showing no decided in the city of the state in the stat

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Centennial, continued

tains, not far from the Pennsy's huge works and yards at Altoona, the hotel offered clear mountain air, local mineral waters, riding trails, shooting ranges, tennis and bowling. Its commodious meeting and dining rooms were finished in local cherry and hemlock. It was Pennsylvania's answer to the famous Greenbrier 200 miles further south in the Alleghenies.

The court's Millvale decision was already under attack. Two petitioners were seeking a reversal. But the water company operators who came to Cresson Springs from as far as Meadville, 120 miles to the northwest, and York, 100 miles to the southeast, felt that their rights under various charters were not being effectively advanced. The situation called for concerted action . . , and greater vigilance than they had been maintaining to date.

The group organized as the Pennsylvania Water Works Association, formulated a constitution and drafted bylaws which were to serve the association practically unaltered for a generation. They elected J. Denton Hancock, of the Franklin Water Company, their first chairman. And the association joined the fight to reverse the onerous Millvale decision. The following year, the State Supreme Court responded. It ruled that by granting a private company a franchise to supply its water, a Pennsylvania municipality foreclosed the option to build a competing system. The water suppliers had reestablished a critical principle.

Issues Were Not Unlike Today's

Other issues on the association's plate in those early years were the companies' rights to protect water sources, the extent of their eminent domain powers, the standards used by the courts in fixing rates, municipalities' right to charge fees for pipeline inspection, a fair way to establish the value of a company being acquired by a town. They weren't unlike the issues of today.

One big difference, though, was that there were no regulatory commissions. Utilities were regulated by the legislatures and the courts. So those were the arenas where the battles were joined.

Treatment technology was evolving rapidly by the 1890s. Slow sand filters, in use for almost 50 years, were shown to be effective for removing both sediment and bacteria from surface waters. And, more recently, wood and iron rapid sand, or mechanical, filters, an American innovation offered in dozens of patented configurations, had been installed in Charleston, West Virginia; Belleville, Illinois; Atlanta, Louisville, Cincinnati and other cities.

The association met for one more year at Cresson Springs then moved its meetings-for the next 45 years, until World War II-to the Haddon Hall hotel in Atlantic City, one of the east coast's premier conference sites. Early on, it established a headquarters in Pittsburgh and formed committees to monitor all legislation and court decisions, at first in Pennsylvania, then nationwide. Laws or decisions that impacted water suppliers were recorded, filed and analyzed. Summaries were mailed to members and the association's counsel and other experts discussed the most important issues at the annual meetings.

Others Were Organizing, Too

The Pennsylvania association was not the only water supplier association meeting at the turn of the century. Operators in New England and other parts of the country had formed associations, too. But most groups represented municipal suppliers. The Pennsylvania group, described by its president as "the envy of all other states," was growing by leaps and bounds and was clearly the pace-setter in advancing the interests of investor-owned companies.

In 1898, the U.S. passed the first laws barring the dumping of waste into navigable waters and the U.S. Supreme Court ruled that utilities were entitled to a fair return on their investments.

What of the nation's water companies themselves at the turn of the century?

One of the largest-perhaps the largestwas the 31-year-old Indianapolis Water Company, growing rapidly after some shaky early years. The company had been founded and directed by movers and shakers in the state's capital. Three early directors were governors of Indiana in the 1870s and '80s and an early company lawyer, Benjamin Harrison, had been president of the United States from 1889 to '93. In 1900, the year that the Olds company started turning out cars at the rate of one a day, IWC was in the capable hands of Thomas A. Morris, a retired Civil War general and engineer who had been instrumental in building Indiana's statehouse, its key railroad, its first turnpike and the city's trolley system. He and his successors, local businessmen and philanthropists Frederick Davis and Linnaeus Boyd, could hardly have foreseen that a young and ambitious out-of-towner who was then developing small gas and electric properties in Indiana, would, in a few years, be the absentee owner of the Indianapolis Water Company. He would also eventually own the Philadelphia Suburban Water Company. But more later about Clarence H. Geist.

Kuhn Brothers Form AWW&G

A number of the independent water companies in Pennsylvania at the turn of the century had been built by Kuhn Brothers & Company of Connellsville. Kuhn Brothers had reorganized in 1886 as American Water Works and Guarantee Company of McKeesport to not only build and purchase water systems but to guarantee the payment of the principal and interest on their bonds. By 1900 AWW&G owned a score of companies from Pennsylvania to Missouri. It, of course, was to evolve, years later, into American Water Works Company.

In San Jose, California, a farming community midway between San Francisco and Monterey, early water company entrepreneurs had tapped the valley's rich aquifer and built a wooden flume to import the abundant rainfall from the nearby Santa Cruz Mountains. In the 1890s, the San Jose Water Company was feverishly buying up watershed lands to the west of the city and trying to negotiate water rights to Coyote Creek, east of town. The neighboring Bay City Water Company also was after those rights so it could sell the water to San Francisco and Oakland. San Jose eventually prevailed.

As the 20th century dawned, the 30year-old Hackensack (New Jersey) Water Company, which was serving a thriving city and its environs, retained a Massachusetts engineer, Allen Hazen, who had been to Europe to gather information on slow sand filters and had designed one that had dramatically curbed typhoid in Albany, New York. Hazen and George W. Fuller, a Louisville, Kentucky, engineer who was experimenting at the time with a rapid sand filter, were leading proponents of filtration in America. Hazen recommended that before undertaking a filter plant, the company build a reservoir so it could settle out the suspended matter that plagued its source, the Hackensack River. Work was begun immediately on a reservoir at Oradell. A year later, the company sacked Hazen and retained Fuller, who had demonstrated that he could do with two acres of filters what Hazen was proposing would take 125 acres. The key to Fuller's systems was chemically-induced coagulation before filtering. A technique using sulfate of alumina as the precipitant had been employed successfully in Omaha, Kansas City and Chester, Pennsylvania.

York, a Filtration Pioneer

Hackensack and most other companies were following the lead of The York Water Company in filtration. York, founded in 1816, was the oldest company in Pennsylvania and among the earliest in the nation. The city-like many others-experienced a high incidence of typhoid in 1899. Nationally, some 40,000 deaths a year were attributed to the disease. The York bacteria was traced to polluted wells, but the company, fearing its source was vulnerable, contracted immediately to build a four-million-gallon a day filter plant. It was completed in 16 weeks and delivered the city's first filtered water in March 1899. It was the third filter plant in Pennsylvania, but the first deemed to be entirely successful.

At the turn of the century, Connecticut's Bridgeport Hydraulic Company had 14 reservoirs and two distribution tanks, all constructed since the 1850s. Many of them reflected the vision of the legendary showman P.T. Barnum, who was president of the company from 1877 to 1886. But it was becoming increasingly obvious by 1900 that the system would soon be inadequate to supply the region, which was in the early stages of an industrial boom that would make it one of the Northeast's major manufacturing centers by the 1930s.

Around this time, BHC hired a young Lehigh University engineer, Samuel P. Senior, who would stay with the company 61 years-35 of them as chief executive officer. Senior envisioned-and brought to fruition-a vast expansion of the company's storage and distribution network.

Kean Feels Pressure to Build at E'town

Elizabethtown Water Company, approaching a 50th anniversary at the turn of the century, was pumping close to two million gallons a day in Elizabeth, New Jersey and had its eye on—and investments in—other companies to the west and south that eventually became part of the E'town system. The company president, U.S. Sen. John Kean (son of a founder and the grandfather of the current chairman) was also under tremendous pressure to find new water sources to serve the booming region.

In New York, the 15-year-old Long Island Water Company, with 2,100 customers and 50 miles of mains, was pumping 440 million gallons of water a year. It had survived a financial crisis that almost put it out of business and, under the management of one Franklin B. Lord, was looking ahead to better days.

Then, in 1901, when steamships began to outnumber sailing ships in the New York Harbor, the City of New York announced plans to build an infiltration gallery in the company's watershed. The company believed the move would jeopardize its own supply so it vigorously bought up as much land in the area as it could—almost 1,000 acres—to keep it out of the hands of the city. The Long Island "water war" finally ended in 1909 when the company and the city signed a contract limiting the amount of water the city could pump from LIWC's suburban watershed.

Oberlin, Ohio, built the nation's first large scale water softening plant in 1903, using lime and soda ash. And copper sulfate was shown to be effective in removing tastes and odors associated with reservoir algae.

A Business or a Profession?

In remarks to the Pennsylvania Water Association convened in Atlantic City about this time, Association President Murray Forbes, of the Greensburg Water Company, addressed a question still raised today: What is this work of ours, a business or a profession?

"I use the word 'profession'," Forbes said, "for a man who has the management of a private water company is, indeed, following a skilled profession, one which requires an immense amount of tact, ability and knowledge."



At the 1907 annual meeting, a discussion arose as to the advisability of reading meters monthly or quarterly. C.F. Drake, of the New Kensington Water Company, cited a case in his company in which "a customer's water closet had been leaking" and "the (quarterly) bill went up to \$16."

"We went to that woman and claimed the rent," he said. "But on investigation we found that her husband earned \$1.50 a day and that they had five children."

"Would you collect water rent from that man?" he asked. "If you did, you would be rotten-egged out of town. We dropped the bill."

Town's Low Death Rate Cited

Later at the same meeting, C. LaRue Munson, of Williamsport, told the group, now concerned about waterborne bacteria spreading disease, that "our city has the lowest death rate in Pennsylvania and, I think, the second lowest in the whole U.S. Whether it's because we live well and behave ourselves or have pure water, I leave that to you to decide."

Munson later raised the question of whether a water company, by agreeing to provide water for fire protection, makes itself an insurer. He thought not, he said, "but that's a question for a jury to answer."

Not mentioned at the meeting was the fact that the city of Nice, in France, had begun using ozone as a disinfectant, a practice that would not gain favor in the United States until the 1980s.

(continued on next page)

Centennial, continued

In 1908, Henry Ford introduced the Model T and chlorination was introduced in Albany, New York and Jersey City, New Jersey, leading the way for its widespread use—and a sharp decline in typhoid deaths—in the next few years. At the PW WA meeting that year a discussion arose over whether water suppliers might develop an alarm system that would alert personnel in the event of a surge in demand that might indicate a main break. One member volunteered that such a device might "ring you out of bed several times a night" when a large industrial user opened and closed valves.

"This would be very bad practice," Mr. Forbes, of Greenburg, frowned.

Association Targets "Inspection Fees"

That year Forbes expressed outrage over a \$30 a year per mile "inspection fee" some municipalities were levying on gas and water lines. The association scoffed at the idea that a police officer or a politician could claim to "inspect" a pipeline by walking above it. And even if they could, Forbes said, one company had demonstrated how long it would take someone to walk all its pipelines and had figured, at the prevailing wage rate (15c an hour), that a fair annual fee for inspections would be \$7.20.

Forbes called the fee a "blatant fraud" and the association vowed to fight it at every turn.

A year later, William Howard Taft was elected to succeed Theodore Roosevelt as President and the pH system for measuring acidity or alkalinity was developed. At the meeting in Atlantic City, the membership noted how household demand for water was soaring as sinks, water closets and bathtubs grew in popularity. In fact, one member noted, "since the introduction two years ago of running water here at the Haddon Hall Hotel, there has been an increase of over 30 percent in water used (per guest)."

That year members also voiced indignation at Pennsylvania's failure to control the discharge of waste by the state's mining companies and tanneries.

"Unless (we can send to the legislature) sufficient members who have the manhood . . . to compel such companies to retain their refuse on their own premises," one member warned, "we are going to continue to have trouble. Already along the rivers we find islands forming solely from the discharge of refuse. We've got to find representatives with enough courage not to become lackies of these corporations."

"Corporation Is a Public Servant"

"A corporation is a public servant," another member observed, "and it must answer to the public as a servant to its master. That is unquestionably the trend of public opinion today." That applies to member companies, too, he said, "and if a court or legislature says 6 percent is sufficient return, we must obey."

That year also the association noted the establishment of a new method of utility regulation in Wisconsin, where the first Public Service Commission had been formed. The commission was described as "a body of trained experts which passes on utility matters, thereby securing a uniformity of decisions" and avoiding the delays prevalent in the courts.

In 1910, the year the nation's first daily radio show was aired and motion picture attendance reached a million viewers a week, the Pennsylvania Water Association marked its 15th anniversary. President W.C. Hawley, who was to be either president or chairman of the group through 1936, noted that 15 years ago, Pennsylvania's water suppliers had been "a very inferior lot . . . with scarcely a legal leg to stand on." Now, he said, "we are unsurpassed in this or any other country in construction, equipment and efficient management."

"Unexcelled Investments"

"And we now stand on a foundation of legal decisions," he said, "that renders us more secure than (companies in) most other states, thus making our stocks stable and unexcelled investments."

"And," Hawley announced proudly, "our membership now includes almost all of the water companies in the state" and that was nothing to sneeze at "when you consider that Pennsylvania has more private water companies than all of the New England states combined."

Another topic of discussion in 1910 was who should oversee the protection of the state's water supplies and the adequacy of its water treatment plants. The medical profession had been lobbying for more supervision for years and, after opposing the idea briefly, Pennsylvania's water suppliers were now on the bandwagon.

Engineers might be the appropriate supervisors, Pittsburgh civil engineer J.N. Chester told the group, "but, unlike law and medicine, engineering is not recognized as a profession in Pennsylvania." He called on the association to support legislation to change that.

Two Quiet Years

Things were fairly quiet at the association's 1911 and 1912 meetings. A dozen new members were welcomed. Bills in Pennsylvania to bar the use of alum as a coagulant and to form a public utility commission had been defeated. A Pennsylvania court had ruled that a municipality couldn't look at a private utility's books until it demonstrated that it had the borrowing power to buy the company. The association discussed-for the fifth time in seven years-what compensation was due property owners when a company appropriates a stream's water by eminent domain. Riparian landowners were claiming that streams had the potential to power mills or generating plants and that they should be compensated for that potential value. The court found for the utilities, however, ruling that such property owners should only collect for actual losses, not theoretical ones.

The association reviewed other states' experiences with their new public utility commissions and concluded that members would benefit from the establishment of one in Pennsylvania because they would then have "nothing to fear from local politicians or the shifting of positions by the courts." Also, they reasoned, "the antagonism between the people and utilities should be largely removed."

Members broached the idea of extending their two-day meetings another day and letting manufacturers join and exhibit their wares on the third day. They also heard a paper, for the first time, on the value of public relations to utilities, noting that the electric power and railroad trade associations both had public relations committees.

Little Discussion of Finance, Rates

By and large there was very little discussion of financing or rates in those days, as opposed to operations-treatment techniques, quality control, accounting, etc., valuation methods, and, of course, legislation and litigation.

Clarence Geist bought Indianapolis Water Company in 1912, then, to the disgust of Indianans, he married a Philadelphia debutante and decided to make his home there, nearer his Atlantic City Gas & Electric Company.

In 1913 the association did, indeed, expand its meeting, doubling the volume of its published minutes. It took apart point by point-and ridiculed-a long academic paper on the 15 reasons municipal ownership of utilities is better than investor ownership. The point was made however, that the new PUC would require municipal water departments to keep their books the way the private companies did and that would make cost comparisons more meaningful. The formation of the Pennsylvania PUC was the big story of the year and Chairman Hawley noted that the act would "change the status of water companies in the state," presumably for the better.

These were changing times for the nation, too. Woodrow Wilson became president. The first electric refrigerators went on the market in Chicago. Stylish sleepers tossed their nightshirts in favor of pajamas. Congress ratified the 16th amendment, providing for the imposition of a federal income tax.

War in Europe Boosts Economy

More important, Germany declared war on Belgium and France igniting a world conflict that triggered unprecedented arms production and mobilization—and an economic boom in the United States' industrial centers. War plant hiring exploded the populations of East Coast industrial centers like Bridgeport and Elizabeth and, once again, water suppliers were scrambling to meet new demand.

That didn't help American Water Works & Guarantee Co., however. Angry bondholders put the company into receivership after investments in irrigation projects in the West went sour. The company was reorganized as American Water Works & Electric, which owned 32 water companies in 15 states in 1915.

At the meeting that year, Theodore Grayson, of Philadelphia, delivered a paper on the predicament of water companies who are sued by customers claiming polluted water caused sickness or death. The common defenses at the time were that the water company was performing a municipal function and was therefore not liable for lapses in its quality control and that it had little power to curb the causes of pollution in its watershed. In most cases, Grayson noted, the plaintiffs failed to show conclusively that water was the cause of the illness or the courts refused to hold the companies liable for pollution they didn't cause or have the power to prevent.

A popular part of the association's programs in early years was the Question Box in which members submitted written questions they wanted addressed at the meeting. At several meetings, the chairman curtailed discussion of other agenda topics to allow time for the Question Box.

Membership Reaches 160

In 1916, in a recap of the association's first 21 years, the executive committee cited a number of achievements: protecting the legal rights of members, advancing treatment technology and operating standards and attracting members. The group had 160 members that year including American Water Works & Electric, which had 70 separate municipal operations in the state, and Citizens Water Company, with 40.

In a 1917 report on the effect of the (continued on next page)



Clarence H. Geist (1866-1938).



Springfield Water Company's first pumping station on Crum Creek, west of Philadelphia (1892) predecessor to Philadelphia Suburban Water Co.

Centennial, continued

war on water suppliers, Association President J.H. Purdy, of AWW&E, noted that operations were disrupted at the worst possible time, when water demand was growing apace. Construction and maintenance were being delayed by a shortage of coal, oil, chlorine, iron pipe, valves and machinery and by the soaring costs of these materials when you could get them: up to 300% increases for coal and cast iron pipe; 175% for valves; 200% for iron fittings, and 150% for machinery and boilers.

Labor was impossible to find, Purdy noted, so companies were finding it necessary "to pick from the ranks of stragglers and the unreliable, to pay 30c to 50c an hour (twice the prewar rate) and to pay off every night" to keep them. Additional burdens were put on companies in warplant or shipyard communities, when the government built hundreds of thousands of rowhomes to accommodate workers.

Appeal Fails

The association cited the wartime emergency in appealing to the Pennsylvania PSC to postpone the imposition of a new uniform system of accounts for utilities. The appeal failed.

After the war, the association meeting focused for the first time on rates, specifically on the need to adjust rates to meet inflated costs and to permit the maintenance and construction that had been put off during the conflict. In addition, members noted that the establishment of the Public Service Commission, which they had anticipated would strengthen the position of water companies, had, in fact, undermined their securities because investors were wary of the PSC's "arbitrary" power to control earnings.

PSC Chairman Speaks

In 1919, the Chairman of the Pennsylvania Public Service Commission (William Ainey) addressed the association for the first time. He chastised members for blaming the commission for all their problems, then assured the group that the PSC would work with their companies to overcome the setbacks caused by the recent war.

These were fast-changing times. The population of the U.S. had grown by 50% since the formation of the Association. Telephones were in use nationwide; the radio was becoming a universal household appliance. A Navy pilot completed the first transAtlantic flight. Congress outlawed the sale of alcoholic beverages and gave women the right to vote.

By 1920, President Hawley was even more concerned about the impact of the Pennsylvania PSC on member companies. In seven years, it had had 21 members (including only a few with utility experience) because the turnover was so high. And a new governor had just appointed new commissioners who had to be brought up to speed on pending business. So much for the "body of trained experts."

Even more serious, Hawley said, the PSC law had made it "exceedingly difficult" to procure capital because utility bonds were paying considerably more than the 7 percent allowed rate of return which had prevailed since before the war. "The commission must act before a disaster overtakes the industry," he warned.

Water companies began to merge for economic advantage and to buy watersheds in outlying areas against the day their nearby sources would be inadequate or unfit for use. And, as the association marked its 25th year, the U.S. Supreme Court entertained Bluefield Water Works Case, which was to provide guidelines for determining an appropriate rate of return for water suppliers.

Next issue: The Depression, the Murdock years . . . and another war. .

REMARKS

at the Deloitte & Touche Northeast Public Utility Conference Absecon, NJ August 15, 1994

by J. James Barr Vice President and Treasurer American Water Works Company

Recently there arrived on my desk a summary of industry news articles that struck me as a reasonably accurate illustration of certain forces at work in "the world of water service." The headlines read:

- "Study Questions Safety of Water Across US"
- "Under Treated Water Flows to 50 Million"
- "Officials Defend Quality of NJ Drinking Water"
- "Congress May Dilute Water Laws"
- "Severe Ancient Droughts: A Warning to California"
- "In Towns Just Miles Apart the Water Supplies Differ Sharply"

and finally, the one that really made my day,

"Toilet Makers Flush with Water Saving Ideas" I can't help but note that buried in this media summary, in keeping with the prominence it received in the newspaper was a hardly noticeable summary of our 2nd quarter earnings announcement.

I beg your indulgence to my sensitivity. We had just reported the highest 2nd quarter earnings per share ever achieved and year-to-date income which was above last year. But, 1 had to use a magnifying glass to find that report obscurely included on the last page of the financial section of the newspaper.

I am certain it is obvious I am not the least bit upset by this.

In all seriousness, that media summary did a pretty fair job of highlighting at least some of the dynamics of the "world of water service." I say some of the dynamics because, for this particular summary, by coincidence, there was no reference to an emerging shift in the basic foundation for water service in this country.

I appreciate this opportunity to address these issues for just a few minutes and offer a perspective of what is happening in our industry. For those of you in the audience who are with energy or communications utilities, you will no doubt recognize what is perhaps an ironic contrast to forces at work in your business.

First, let's talk about water quality. Our customer opinion research indicates water quality is a significant issue on the minds of our customers. No doubt the recent headlines, and many other like them over the past several years, have contributed to this consciousness. Recently, those headlines have been prompted by a news conference in Washington during which the Natural Resources Defense Council (continued on next page)

WINTER 1995 2

Deloitte & Touche Remarks, continued

discussed their conclusions about drinking water quality drawn from data reported to EPA by various state agencies.

By way of background, the federal legislation entitled the Safe Drinking Water Act is undergoing the torturous process of reauthorization. That act, which was first passed in 1974, empowers EPA to establish minimum standards for drinking water quality. State health and environmental regulators have the choice to implement those or more stringent standards or allow EPA to regulate water utilities in the state.

Not surprisingly, every state has chosen to implement their own program and many have adopted more restrictive standards than anything EPA has mandated. In 1986, when the act was last reauthorized, Congress chose to impose certain regulatory dictates on EPA rather than allow the agency to follow their own agenda. There are those who suggest that when that happened, Congress was overly influenced by "environmentalists" and, consequently, went too far.

A coalition of state elected officials, NARUC and water utilities is now seeking to amend certain provisions that were added to this legislation. At the same time, EPA is seeking act amendments and there are those who oppose these efforts.

As it is probably apparent by now, I am just a bit skeptical about the timing of NRDC's news conference. Let me try to put all of this maneuvering into some kind of perspective. Many of us here will get up sometime during the night tonight to get a drink of water. That will be done in all probability without even turning on the light. We will ingest water without even looking at it. Therein, lies the perception and reality of drinking water quality.

I say to you-without equivocation and without regard to the headlines in my media summary-there is no reason anyone should hesitate to drink tap water. Day in and day out, it is safe to consume. But for the rare case, throughout the United States people can, with confidence, take a drink of water without having to worry about its quality. Water service provided throughout this country is a national treasure. It is a shame it is so seldom recognized for the value it represents. The NRDC does a disservice to the public. They cause concern when it is unwarranted by generalizing as they do with their reports which are sensationalized by editors who write headlines. The real tragedy in all of this is that there is a problem with the process of regulating drinking water quality that goes unresolved while the "political debate" rages.

Some of you may recall the serious outbreak of illness in Milwaukee, Wisconsin, that was the result of a failure in the water treatment process. People got sick and some died from contamination of the drinking water. For several weeks, water delivered to homes and businesses in Milwaukee was not safe to drink. I suspect you will be amazed at the realization that throughout this episode, the city never violated any drinking water standard prescribed by EPA or the State of Wisconsin under the Safe Drinking Water Act. So while people debate regulatory and political agendas–Rome burns.

The fact is, responsible water suppliers typically go far beyond anything mandated by either the federal or state government when it comes to drinking water treatment and monitoring. Meanwhile, in an atmosphere that is not conducive to resolving anything effectively with regard to water quality regulation, the debate goes on about the act. In principle, the concept addressed by the SDWA is sound. The concern we have is that the political environment which surrounds this legislation is prone to a reliance on public doubt or fear. Yet, the public is given no reasonable alternative and, in fact, none exists. Regulators must have appropriate authority to set effective standards and enforce them. Politics has no place in this process. If the public has reason for concern in this regard, it is that politics are involved.

One of the corollary issues which crops up in these debates concerns the issue of affordability. Some suggest that regulation under the act will likely drive the price of water service up to the point.that a significant part of the population will be forced to make choices about discretionary spending that may compromise their well being. There is a legitimate discussion absolutely essential in this arena. It concerns the difficult area of balancing risk against the cost of its reduction or elimination. In a political setting, this is an extremely challenging debate to keep rational.

Several years ago, EPA announced its conclusion that people could afford to spend about 2% of their income for water service. It didn't take the NARUC Water Committee very long to figure out what that meant in the way of rate increases that they would confront. Consequently, quite a commotion developed. EPA, in a very short time frame, probably found out more about water rate regulation than they really wanted to know.

To EPA's credit, they did recognize the implication of their policy, and, consequently, set out on a course to bring NARUC into their deliberations. That has become an effective forum for regulators on both sides to try and balance their concerns. But, to again get to the bottom line, the suggestion that the price of daily water service is likely to approach a level which is a significant economic burden to the customer overstates an issue.

As we have all witnessed recently, in horribly graphic scenes on nightly news broadcasts from Rwanda, safe drinking water is absolutely essential to life. There is a cost associated with making pure, safe water available when and where needed. That cost has and will continue over time to increase. But, that cost does not and will not rival virtually any other product or service you and I routinely rely or depend upon.

The true tragedy of water service in an economic sense, is that its cost is so far below its value that people have absolutely no concept of the real bargain they have. The abundant prevalence of water in our environment and its essential role in public safety and health leads to the conclusion that it should be available for use at little or no cost. But just as is the case with gas or electricity, unmanaged water is by itself lethal.

The water utility industry has over the years been extremely successful in providing water service at a cost well below a threshold which translates the water service bill into a consciousness in the customer's mind. Excluding at least some of the water utility people here tonight, and in keeping with our proximity to Atlantic City, I'd be willing to wager a reasonable amount that fewer than 10% of you can tell me the price you pay for water service at home. I'll extend that bet to include your personal chief financial officer. In today's world, that can't be said for most other things we buy and use daily.

The fault here lies with the water utility industry. We simply have failed to develop an appreciation for the true worth of the ability to use or consume water whenever we choose to do so.

Now let me shift gears for a couple of minutes and comment upon that fundamental shift in the foundation of our industry I mentioned earlier. Unlike other utility services, by a large margin throughout this country, water service is a function of government rather than business. In fact, about 80% of the population is served by municipal water utilities.

The industry I represent is small and highly diverse to the extent of size and territory. There are only 18 water utility companies regularly traded on one of the three major stock exchanges. American Water Works Company recorded revenues in 1993 of just over \$700 million and has about \$3 billion in total assets. Consequently, we are, in terms of size, two times larger than the next largest water utility. By these benchmarks, though, we are the smallest utility represented in the room tonight, water excluded, of course.

Our business is highly capital intensive; must contend with fixed costs which approach 80% of total cost; and operates on a technology base which is largely unchanged from that our predecessors utilized generations ago. Primarily as an outgrowth of this economic environment, water systems have evolved over time which typically serve well defined, although limited, areas.

Notwithstanding the dominance of government in the business, there are many examples throughout the country of daily water service that is provided by business enterprise albeit a monopoly service in the truest sense. Regulation can and does protect the public interest.

With the benefit of this track record and the fiscal pressures which are developing in the municipal sector, government officials are beginning to seriously consider alternatives. One of those alternatives is, "Why are we in the water service business?"

Given the economic environment of water service and the limits on resources municipal officials face, they are looking for ways to convert assets to cash and eliminate annual spending requirements.

The basic questions they consider—If the city of Indianapolis or San Jose or Baton Rouge or Chattanooga or Peoria can live with a "privately owned" water utility, why can't we do the same thing? Obviously, we and others think they can.

Given the fact that 80% of the market share is now not a part of the investorowned water supply industry, I believe you can sense the potential for a shift in the fundamental nature of the water business. As you examine recent developments not only in the United States but internationally, you will note what has been called "the leading edge of a wave" which is likely, over time, to significantly shift the organizational arrangement of the business of water service.

Strange as it may seem, other countries around the world have moved more rapidly in this direction than we have so far right here in the home of capitalism. But, nevertheless, we are moving.

On the government side, we have seen Indianapolis privatize the operation of their wastewater treatment facilities. Right here in New Jersey recently, Hoboken turned to United Water Resources for the operation of their water system, and shore communities like Allenhurst have sold their water system to New Jersey-American Water Company.

In southern New Jersey, our subsidiary, at the direction of state government, is constructing a \$165 million regional water supply project to supplement water supplies that have been depleted by area growth and development. This project is quite similar in concept to the regional water supply operation E'town Water Company has operated for years in northern New Jersey.

In West Virginia, state government has moved to enhance water service throughout the state by facilitating a regional supplier—West Virginia-American Water Company's ability to absorb public water districts. And the federal government has agreed to help fund water service privatization in West Virginia.

On the industry side, in the last 12 months:

American and its subsidiaries in Indiana, Missouri, and Ohio completed a \$125 million acquisition of water systems which, in certain situations, might otherwise have been sold to municipalities.

- United Water Resources merged with General Water Works Company with the expressed view of enhancing both utilities' ability to grow. That transaction was reportedly worth \$200 million.
- And in May of this year, our subsidiary in California announced its proposal to acquire, for about \$300 million, a publicly owned water district in Orange County, California.

This is a unique and complex proposal. Frankly, it is unsolicited and was triggered by the reaction of local residents to the way the district has been managed. In order to go forward, a local government agency other than the district's board of directors, and the California Public Utilities Commission, must approve the transaction. Currently, a significant portion of the revenue stream of the district is a result of its ability to impose taxes on landowners. Our proposal seeks to convert that revenue stream to customer charges which are regulated by the PUC and, in the process, put in place the discipline of a business mind set. Public opinion today indicates a preference for this classic privatization initiative.

Each one of those three transactions either was or is the largest in the industry's history. Let me conclude, as is perhaps my compulsion as a financial officer, by going back to the bottom line.

There is change evolving in the water business. It is perhaps ironic that the dynamics of these trends are, in certain respects, just the opposite of what those of you in the gas, electric and communications industry are dealing with today.

We tend to be moving toward the expansion of the role of rate base and cost of service regulation while you face competition and deregulation. All that really means is that we manage different business enterprises.

I wish you well as you tackle the challenges before you—ask for your prayers as we tackle ours—and seek the guidance and expertise of those who provide consultation in these endeavors.

In the final analysis, we must never lose sight of the awesome responsibility we share—that is to create value for investors by providing essential public services that people can depend on and enjoy.

THE CLEAN WATER INDUSTRY: CHANGE, CUSTOMERS, AND CHOICES

by Hampton D. Graham Chairman of the Board and Chief Executive Officer Jamaica Water Supply Co.

Excerpts from the text of a speech presented at the AIC Conference "Privatization and Consolidation Opportunities in the Water Industry," San Francisco, California, September 8, 1994

At conferences and industry meetings, in articles and speeches, we have examined and re-examined the remarkable changes that have taken place in our industry in just the last few years. Dramatic shifts in the dynamics of the water and wastewater business-what I call the clean water industry-have taken place, changing the face of the industry in the process. While once we would have described our business as a simple, monopolistic enterprise comprised chiefly of pumping water and reading meters, now we find ourselves discussing competition and consolidation, strategic alliances and privatization. Ours has become a stimulating, complex industry and inherent in its complexity is a whole new world of challenges and opportunities. If we are to take advantage of



Hampton D. Graham

these opportunities, and I'm assuming that those in attendance at this conference intend to, we need to get behind the change, understand what's driving it and harness it for our benefit. I believe that there is one, fundamental factor driving the change in our industry and further believe that we've been myopic in identifying the cause behind these shifts. It is, simply, the customerOur industry has been shrouded for so long in its protective monopoly shell that the voice of the customer has gone unheard. As Dr. Robert Hurd of Apogee Market Strategies, who authored the 1993 AW WA/AW WARF customer perception survey, summed it up:

"One thing I've learned is that rate payers need to be treated as customers. All of our polling shows that consumers are much more sophisticated today and have higher expectations than ever before. . . . And they have come to expect from government and public services the same kind of treatment they expect from consumer products and other services. . . . They are almost always willing to pay for products and services, but they want to know exactly what they are getting and they expect a high value. Why should . . . your local water utility be any different?"

If we are to take advantage of the myriad opportunities now available to us we must adopt a different approach to doing business. That means abandoning traditional views of what causes change in our industry, listening to our customers and devising new and creative structures to respond to fresh challenges. To provide perspective, I'd like to identify the factors that traditionally motivate change in our industry and explore how we can understand them better and benefit from them.

Traditional motivators of change, the factors we're used to dealing with, include:

- water quality issues: contamination, effluent quality, reclamation efforts
- laws and regulations: the Safe Drinking Water Act and Clean Water Act.
- industry economics: supply, treatment and distribution costs, labor costs, local taxes and the cost of capital.

How has our industry reacted to the changes brought about by these traditional motivators? Predictably, we have reacted with traditional responses:

- changes in operations to meet regulatory, economic and supply challenges
- more construction and the attendant capital expenditures
- more rate cases or, for the municipals, tax increases to recover these additional costs.

These are traditional, cost-driven responses to change: whatever it costs to make changes, we, the industry managers, have sought to increase rates to recover those costs. But the customer—the price conscious, quality-conscious customer—is demanding that they receive value for their money, that unexplained rate increases stop, that we become more accountable, and that we contain costs while still delivering the highest quality product. It isn't the regulators who are deciding the permissible rates to charge. It's the customer.

The Customer: Cardinal Change Motivator

New laws and regulations and the related economic implications are not in themselves the drivers of changes; they are the result of customer (a.k.a., voter) attitudes and actions. The profound changes we are witnessing today in our industry are coming from customers, either directly or through their intermediaries. Our business is selling clean water and returning clean water to the environment after use. And, it's the customer who decides what's "clean," not the legislators or regulators, not the environmental agencies and not even us, the industry managers. Admittedly, our customers can't simply switch "brands" the way they might switch toothpaste or other consumer products. But, if they aren't satisfied with the value of the product we're selling, they will speak up and, thus, become catalysts of change. We have evidence of that at Jamaica Water.

When I joined the company two-and-ahalf years ago, I was met by angry customers and regulators who suspected that mismanagement was at the root of the company's escalating rates and sub-par service. In fact, the real problem was that the company had not communicated with its customers, had not asked them how they rated their water service and had not involved them in the steps it was takingsome of them costly-to protect water quality by complying with increasingly stringent environmental standards. There were allegations of "overcharging" and a demand for "refunds" in extraordinary amounts. Our complaint rate was aboveaverage and our employees were demoralized. Our customers were making themselves heard, loud and clear.

We thus began a dialogue with our customers, along with other "intervenors" in the process, that brought about the remaking of Jamaica Water-changes in management, an organizational restructuring, a 21st-century collective bargaining agreement and the adoption of new processesall leading to improved productivity and, more importantly, improved value for customers. The settlement we reached with our customers and regulators to resolve the contentions and misunderstandings allowed us to avoid costly litigation and provided customers with more stable rates and credits, instead. Also in response to the collective voice of our customers, we are now taking steps to change the ownership of our company.

Undeniably, our experience in righting these perceived wrongs was at times difficult, but, in the end, vastly rewarding for all involved. Jamaica Water is a better company for having involved its customers. We made a concerted effort to reach out to our customers via public forums, one-onone meetings with local leaders and the press, customer roundtables and frequent written communications. We listened and what we learned is that, above all else, it is the customers who drive the change process.

New type customer participation: diagram

This is not a lesson we will soon forget. In fact, we've institutionalized the process at Jamaica Water. Our collaborative approach to solving problems-with the customer as our partner-provides us with the information we need to make the best business decisions and allows us to reach consensus with customers. What better way to seek approval from regulators than to approach them in partnership with your customers who, through the collaborative process, trust and support your proposals? As I've illustrated, the attitudes and actions of our customers can and do have a substantial impact on the way we do business in the form of new laws and regulations, price resistance, management and ownership changes.

It is the customer, the cardinal change motivator, who is driving the consolidation and privatization process thus creating business opportunities for entrepreneurial and innovative management teams of companies in the clean water industry. We are proud to serve at Jamaica Water Supply.

The Reauthorization of the Safe Drinking Water Act: Costs and Risks

remarks by The Honorable Diane K. Kiesling, Commissioner Florida Public Service Commission

> at the NARUC Annual Conference November 15, 1995 Reno, NV

In preparing a presentation on the costs and risks associated with the SDWA, I found very little actual cost data relative to small water systems. One reason for this, at least based on our experience in Florida, is that the small water companies, about 2,000 of them in Florida, are only just beginning to feel the brunt of costs related to the current SDWA. But, I have reached the conclusion that there is another reason for the difficulty in obtaining even projected cost data. That reason is that there are societal costs associated with safe drinking water which cannot be measured. Unmeasured costs reflect the costs to society from pricing necessary commodities beyond the reach of the impoverished or people on fixed incomes, from failing to detect and protect the public from water-borne diseases and illnesses which could or should be detected, and from allowing small non-viable water systems to be created and to linger while slowly going toward their fiscal death. As regulators we must keep these unmeasurable costs in mind when evaluating the costs and risks associated with providing safe drinking water.

I also find it difficult to discuss the costs of the SDWA on small systems without also considering related solutions, so, as a part of my responsibility as a regulator to identify adequate solutions to very real problems, I am gratuitously including some possible solutions. I have concluded that, although we may not be able to adequately determine all of the costs of regulation, we can be more proactive by predicting the effects of regulation on water systems and taking action before the public is harmed either physically or economically. Specifically, I believe that a small system viability assessment program should be used to determine whether a water system can survive on a going-forward basis, knowing that water service will become increasingly more costly to provide. The Association of State Drinking Water Administrators estimated in a recent publication that the cost of drinking water will increase from an average of \$100 to \$250 per year per household to \$500 to \$600 per year per household.

I would also note that with water conservation also becoming imperative, particularly in Florida, some of the costs associated with the SDWA are not necessarily bad because economists will tell you that the rise in cost of drinking water should reduce consumption to some degree. We have not found that to be universally true in Florida, but that is attributable to water having been a very abundant, underpriced commodity until recently.

I have prepared my remarks with a small system viability assessment program in mind.

Why is there such an interest in the SDWA and in the failed reauthorization legislation? One reason is that our ability to monitor drinking water expands as more sophisticated detection equipment is developed. In addition, the potential has increased for contamination from growth in population, industry, waste disposal, and the number of possible contaminants (i.e., new chemical waste products which may be carcinogenic). Detecting contaminants using sophisticated detection and remediating violations is expensive and can be exorbitant. Thus, the cost/benefit analysis included in the recently defeated legislation was offered as a reasonable solution to measure the need for detection and treatment versus the cost. At present, in Florida, the utilities must test for the identified contaminants and then they must use the best available treatment method for achieving compliance before any variance may be considered. Of course EPA has authorized the states' primary agencies to be flexible in the granting of exceptions and variances, but as a general rule, most of those state primary agencies are reluctant to deviate from the strict EPA mandates . . . something about liability if someone became ill. The more proactive methodology would be to first measure the costs of the regulation versus the benefit to be derived from it.

Whether you use EPA's estimated annual cost of over 1 billion dollars or industries' latest estimates of 4 billion dollars, a recent AWWA Journal article by Robert S. Raucher,¹ under the 1986 SDWA amendments, concluded that nearly 99% of the total carcinogenic risk reduction is attained for about 60% of the total cost; the other 40% of the cost achieves only 1% of the risk reduction. The article further states that if the regulations were focused on systems serving 550 or more, almost 90% of the total cancer risk reduction would occur at only 43% of the cost.²

Some costs associated with any safe drinking water regulation are readily identifiable, if not readily quantifiable. First, there are the costs associated with testing, which are quantified by what is being tested for, how often testing is done and the equipment required. Additionally, there are the costs of monitoring levels of certain contaminants and of treatment associated with what is found during testing. The cost of treatment is driven by the chemicals, equipment, duration, and even capital improvements required to provide adequate treatment. There are also associated maintenance costs.

Florida has approximately 7,200 water systems, half of which are non-community; 1,200 are non-transient. Of the 2,400 community systems, 85% serve less than 300 people and even fewer ERCs. In 1993, the SDWA monitoring requirements were applied to the 350 systems with more than 10,000 customers. More stringent testing for ground water became effective in 1994. The source of 95% of Florida's drinking water is groundwater. Therefore, we are now just realizing the financial impact of the mandates of the SDWA. In February of 1994, Florida's Department of Environmental Protection did a massive mailout to the approximately 2,000 small systems serving 25 to 10,000 customers, advising of the testing requirements due by December 31 of 1994. It is expected that these testing requirements will cost systems from \$6,000 to \$6,500 for the first year and \$500 for the two following years. So far only 35% of those small systems have submitted the required monitoring results. The response rate, with only two months left to achieve compliance is indicative of the many small water systems' limited ability to meet these regulatory requirements. (This may suggest that these systems are unable to provide safe and reliable service at affordable rates.) It is anticipated that many of these systems will be abandoned or forced into bankruptcy if not absorbed by other utilities. Florida, with its thousands of small systems, will be particularly hard hit. Therefore, it is important to inject reason into the standard setting process and consider the cost of compliance. Without the SDWA reauthorization's state revolving fund provisions, this cost is ultimately borne by utility customers. For example, data we received from North Carolina indicates significant increases in customer's bills in 1994 due to current SDWA requirements. The increases range from 5% to 133%, depending on number of customers and entry points. These increases result from the cost of testing only, and do not include any plant improvements or modifications to correct any problems reflected through testing.

In Florida, we have a statutory provision which allows utilities to pass-through certain expenses, such as SDWA testing costs, without having to file a full rate case. That is, the agency has given staff administrative authority to approve testing costs requested by utilities. The Statute also provides pass-throughs for increases in expenses for electric power, ad valorem taxes and regulatory assessment fees; however, in Florida the amount of the allowed testing expense is amortized based upon testing frequency. Therefore, utilities are forced to pay the full amount of the test in the initial year even though they will not recover the amount until the end of the amortization period. For example, a test done every three years is amortized over three years. The Commission processed 33 pass-throughs for water testing costs. In North Carolina, utilities are allowed to collect the full amount of testing in the year it is incurred through a surcharge. The amount of the surcharge would, of course, change from year to year. This surcharge would be difficult to pass on to Florida consumers and Florida's unique demographics have made such volatility in rates unacceptable. According to 1980 data, over 40% of Florida residents were retired and 1 of every 6 citizens received a Social Security check. By 1989 almost 1 in 5 Florida residents were retired and 1 of every 6 citizens received a Social Security check. By 1989, almost 1 in 5 Florida households had retirement income and by December 31, 1991, 1,868,801 retirees in Florida were receiving Social Security and 2,728,646 Floridians were receiving some kind of check from Social Security.

We also know, since the failure of reauthorization, that approximately 90% of the Florida systems will fail the radon testing. Treatment for radon usually consists of aeration. Aeration causes corrosion which then causes an unacceptable increase in the amount of lead and copper found in the water. Approximately 25% of Florida systems are already expected to fail the lead and copper standards without consideration of the effects of treatment for radon at current levels. So much for some of the costs.

In measuring risks, the EPA uses estimates related to the number of incidences of an illness that are avoided. That is, in measuring the risk of carcinogens in drinking water, the EPA makes a determination of the number of individuals who are expected to be spared from cancer thanks to regulation. They also consider how much money people are willing to pay to reduce the risks. Years ago, treatment of water reduced or eliminated the risk of cholera, typhoid, dysentery and hepatitis at a very low cost. However, as I mentioned earlier, the cost of treatment has risen with the sophistication of the equipment to identify contaminants and the growth in the number of contaminants. In the AWWA Journal article which I referred to earlier, several tables analyzing cost-effectiveness and risk avoidance of cancer were published. Using the data in the tables, the authors of the Journal article conclude that a significant portion of the risk reduction can be achieved through the regulation of a limited number of contaminants that account for a relatively modest share of the total compliance costs3 and that using a cost benefit analysis can help give decision makers more meaningful choices.

This is where small system viability assessment comes in. Approximately two thirds of the water systems in the United States serve 500 or fewer people. Small systems have problems with meeting regulatory standards (due to small size, deteriorating physical infrastructure, lack of access to capital, and lack of technical and managerial capabilities). Of special concern regarding compliance with the SDWA is its impact on very small water utilities, for which environmental/regulatory compliance issues are elusive, especially in comparison to issues of basic economic and regulatory survival and financial viability. SDWA has added another layer of concern for utilities and regulators due to the mandated cost of compliance. The SDWA is enforced by en-(continued on next page)

Reauthorization, continued

vironmental agencies, while the economic regulation is done by the PSC. Environmental and economic regulators need to adopt viability assessment policies, agencies must work together to regionalize facilities, encourage interconnections with or sales of small nonviable systems, and discourage creation of new utilities, especially small underfunded systems, which should be the subject of viability analysis prior to permitting. The intent of viability analysis is to identify small systems that are getting into trouble so that their problems can be worked on before they are entirely non-viable, abandoned or bankrupt. This also provides an earlier opportunity for them to be absorbed by larger, viable systems. A viable utility is one which is self-sustaining and has the commitment and the financial and technical ability to meet the regulatory standards on a long-term basis. We need to look for incentives which regulators can offer to viable utilities to encourage such acquisitions or transfers.

Recognizing that many small drinking water systems will fail as the provisions of the SDWA are implemented, we, as regulators, must develop comprehensive viability assessment programs to insure that the public continues to receive safe drinking water at a reasonable price. We must coordinate with state environmental regulators to develop workable viability plans. This was the thrust of the resolution passed by NARUC at the summer meeting.4 Many states already have mechanisms in place to measure the viability of new systems which apply for permits from the state regulatory agency. In Florida, where we have had a MOU with our state Environmental Protection Department, new systems must first obtain a certificate from the PSC, which determines whether the owner has the financial and technical ability necessary to provide adequate service. This is the type of inter-agency interaction necessary to insure that new systems are viable. However, in developing a viability assessment policy, we must also examine the viability of existing systems.

In adopting a Small Drinking Water System Viability Assessment Program and entering into an interagency memorandum of understanding to facilitate coordination of the state public utility agencies and other state agencies involved in safe drinking water programs, I would envision one of the first steps to be to evaluate the number of existing small systems in your state and their financial condition (look at capital, revenues, annual reports, needs for system expansion or repair due to growth or regulatory compliance). Viability assessment models have been developed to measure the fiscal viability of systems and would be a useful tool in making preliminary assessments. After analyzing the existing systems, a plan should be developed which addresses the needs of the small drinking water systems and alternatives for those systems which are troubled or non-viable. The plan should consider legislative changes, as well as internal policy changes and agreements with other regulatory agencies necessary to implement the plan. Initiatives already implemented in some states to improve viability of small systems include special rate case assistance, accelerated depreciation, emergency funding, simplified reporting, and emergency assistance. For nonviable systems the following have been used: initiating voluntary mergers/acquisitions/ receiverships; allowing positive acquisition adjustments; approving higher than normal rates of return for certain acquisition and improvement costs; interconnecting with other systems. In fact, New York issued a Statement of Policy on Acquisition Incentive Mechanisms for Small Water Companies on August 8, 1994, and, among other things, made acquisition incentives available in appropriate circumstances. Among those incentives are adjustments to rate base, accelerated depreciation, amortization of acquisition costs, and to a lesser degree, departures from traditional rate making such as using a ratio of revenues to O&M costs to determine revenue requirements, allowing a premium on the rate of return, and delaying or phasing in recovery of costs.

Some states have actually assumed responsibility for operating failed systems. There are many tools available for us to control the failure of systems and to insure the continuous provision of safe drinking water to the public at reasonable rates. The key element, however, is for commissions to act now and to take a proactive role in safeguarding the financial integrity of drinking water systems in this country by developing meaningful, comprehensive, viability programs and adopting a Small Drinking Water System Viability Policy Statement.

When systems are merged or acquired by a viable utility, there can exist separate rates for each system. The issue of rate equalization or uniform rates for all systems should be addressed by regulators in order to fully realize the benefits of the viable utility, such as economies of scale and sharing of capital improvements among systems.

In implementing uniform rates for existing systems, regulators should anticipate adverse reaction from customers due to the short run perception of "winners and losers." That is, some customers will see an immediate increase in rates and some a decrease. For instance, an often-mentioned concern of customers is that the impact of CIAC charges is diluted due to the inherent averaging in uniform rates. However, while uniform rates may be creating an immediate subsidy for some systems, at some point all customers will reap the benefits of uniform rates at the time their system needs some improvement or modification to meet environmental requirements and these costs are spread among the total customer base. The bottom line is that inequities occur in any rate structure and whether a system is a "winner or loser" will change from time to time as conditions change.

In summary, as economic regulators, we have a significant role in ensuring that utilities can continue providing safe, reliable water service at an affordable price. We must urge Congress to include the cost-benefit analysis requirement in the next reauthorization of the SDWA. We must also coordinate with the various state environmental agencies to develop viability policies and programs. And finally, we must take a proactive role in the restructuring of drinking water regulation and the related changes in the water industry. Thank you.

NOTES

^{&#}x27;Robert S. Raucher et al., "Cost-effectiveness of SDWA Regulations," Journal AWWA, August 1994, p. 28.

²Raucher et al., p. 28,

¹Raucher et al., p. 35.

^{**}Resolution Regarding Small Drinking Water System Viability,* sponsored by the Committee on Water, adopted July 27, 1994, reported NARUC Bulletin, No. 32-1994, p. 12.

The Reauthorization of the Safe Drinking Water Act: Costs and Risks

remarks by James B. Groff, Executive Director National Association of Water Companies

> presented at the NARUC Annual Conference November 16, 1994 Reno, NV

Today we have been asked to focus on the Safe Drinking Water Act (SDWA), its costs and risks. The cost of drinking water is important, for that cost has risen and will rise even more dramatically over the next ten years. Can the cost of drinking water rise to the point where this substance, so necessary for life itself, is unaffordable for large segments of the population? While some argue that the poor and those on fixed incomes are already facing a crisis in this regard and having to decide which other necessities, such as food, clothing and medicine, are sacrificed in order that increases in the cost of water are accommodated. I believe that as long as government prudently regulates, municipal and investor-owned systems alike will find ways to ensure that the cost of drinking water remains reasonable and affordable.

In the water quality area particularly, government needs to regulate those contaminants that are known to have adverse health effects at low exposure levels (i.e., microbials, human carcinogens and contaminants with acute health effects) and stop regulating contaminants believed to have safe exposure levels, and low risk.

A 1993 study commissioned by the American Water Works Association concluded that about two-thirds of the 84 contaminants currently regulated by the EPA do not pose a major threat to public health. In addition to consuming significant resources, however, the current standard setting process ends up frightening and even misleading consumers, many of whom are uneducated, indigent or elderly. There have been significant increases in the cost of drinking water already. Ernst and Young report that between 1988 and 1992, the average monthly residential bill for water and sewer increased 23.4 percent for over 140 cities. They went on to note that Los Angeles' rates had increased 73.9 percent, while Chicago and Boston's rates increased 79.2 and 106.5 percent respectively. NAWC's own data indicates rate increases ranging from 25 to 35 percent over a comparable period.

As is discussed in more detail later, the questions of risk cannot be simply characterized as a one in a million or one in onehundred thousand chance of an occurrence. Certainly if it is affordable, everyone in this country should be able to ingest water from their community water suppliers' distribution systems with the confidence that they stand no more than a one in ten-thousand or perhaps one in onehundred thousand risk of an adverse health effect. But remember that 25 percent of the population have depressed immune systems. That's one reason why we boil baby formula. What confidence in drinking water should that 25 percent be provided, and at what cost to everyone? The answer lies in striking a balance, difficult as that may be, between affordable, high quality water, and low risk of an adverse health effect.

Also to be weighed is the risk of immediate or acute adverse health effects, predominately from microbiological or viral contaminants such as those that affected 400,000 people in Milwaukee last year, and the longer term risk from primarily chemical contaminants, that only may be manifested after consuming two liters of contaminated water per day for 70 years. To address affordability, the law must give management greater flexibility to address such differences, to federal and primacy agencies.

Now to focus on the increasing cost of drinking water as it affects the customer's disposable income and hence. I will admit that this focus provides an opportunity that I simply cannot forego.

During the deliberations on the reauthorization of the Safe Drinking Water Act (SDWA), the industry was frequently, and in my view unfairly, accused of attempting to weaken existing law. Nothing could be further from the truth. The industry's involvement was simply to "fix" legislation that everyone, including the environmental community, agreed was "broken," and make that legislation more practical, cost effective and efficient.

Most are aware that SDWA compliance costs must be passed through to the customer, since there is no other source of financing required facilities. But most are not aware that it is concern for the impact of the rising costs of drinking water on the customer that drives industry involvement in the legislative and regulatory proceedings addressing water quality. Without this concern, there is little motivation for the industry to be involved in what are frequently stormy debates and, in the process, risk exposure to charges that it's objective is to weaken public health protection.

(continued on next page)

Reauthorization, continued

Yet insofar as the investor-owned industry is concerned, there has been little acknowledgement of the efforts the industry, supported by the NARUC, have put forth. Those efforts included advocating inclusion of risk reduction analysis and other reforms that will save consumers money.

I find this alleged lack of concern for the customer particularly ironic in the instance of the investor-owned industry, since the investor-owned industry stands to earn higher rates of return by incorporating any and every requirement the government, by fiat, demands. Further, I personally wonder why the industry found so few consumer advocates in its corner during deliberations of this consumer issue.

But our focus today is on costs and risk. In this regard, you should be aware that the NAWC is now embarking on an effort that may, and I emphasize the word "may," suggest that the cost of SDWA compliance pales in comparison to those costs the industry will face to rehabilitate, improve and extend its infrastructure, an infrastructure we take for granted and depend upon continuously.

Recently, one of our members analyzed its distribution system costs and found that pipe that was originally placed at \$2.88 a foot, was being replaced in 1993 at \$94.36 a foot. (Yet another member's analysis of SDWA versus infrastructure costs revealed the former to be 26% of the combined total over the past five years.)

These replacement costs excursions, which are far above inflation rates, relate not only to the intricacies of abandoning old pipe and installing new, but also to the complexities occasioned by the need for traffic control, maintaining service, environmental and safety concerns and similar. In just the past three years, distribution system replacement costs have escalated by over 20 percent and many of our members anticipate these costs to increase by a factor of 10 or more over the next five years.

The Association's initial attempt to quantify the national costs for infrastructure replacement and improvement suggests an amount approaching \$4.6 billion a year. Add this to EPA's \$1.4 billion SDWA compliance cost figure, or AW/WA's \$4.1 billion compliance cost figure, and pretty soon we're starting to talk real money.

Now some municipalities may be able to conceal these increases in property taxes, but for the investor-owned industry, and many cities that charge customers the true cost of drinking water, the potential for consumer rate shock is significant.

If one adds (lets split the \$1.4 -\$4.1 billion difference) \$2.7 billion to the \$4.6 billion for infrastructure and divides the result (\$7.3 billion) by 242.7 million people, we find an increase of a little over \$30 (\$30.08) per year for every man, woman and child served by a community water system. Said another way, at 2.7 persons per household, that's over \$80 (\$81.27) annually, if-and it's a big if-the costs are spread evenly among every home in the country. But, alas, costs are infrequently, if ever, spread equally. Certainly the economics of scale prevail in this industry, which is 30 to 40 percent more cost intensive than any other utility.

At the Great Lakes Conference of Public Utility Commissioners last July, Scott Rubin, a leading public utility consultant, observed:

- "Providing safe drinking water is an absolutely essential public health program. The safety of our drinking water must be assured...."
- (2) "Public health protection is not free, drinking water is not our only important public health program and as we all know, there is not enough money to go around."

He concluded that when the federal and state government require poor people to divert meager resources from one public health need to another, government has the responsibility to insure that it's obtaining meaningful public health protection for the dollars diverted. If government does not, it is simply harming the health of the public.

Organizations representing governors, mayors, county and city officials and state health agencies were active participants in a "Coalition" that included regulators, the NAWC and other drinking water organizations. The Coalition strongly advocated, as part of the SDWA reauthorization, provisions that would require EPA to compare the health benefit to be achieved by progressively more stringent maximum contaminants levels (MCLs), to the additional costs of treatment (and ultimately, the additional costs to the consumer) required to meet each more rigorous MCL. The Coalition knew of no other mechanism, as imperfect as that mechanism might be, given today's knowledge of science and processes, to ensure that "Meaningful public health protection" is obtained for the dollars diverted.

Few will argue that assessing the additional risk to exposed populations of higher, less stringent MCLs and evaluating the funds to be saved or the ancillary benefits to be achieved, is a burdensome and a difficult task. Regardless, I agree with Scott Rubin that there is significant potential for greater harm to public health if regulation drives the cost of water so high that the public is forced to reduce their expenditures for food, heat and medical care, in order to consume water that reduces their risk of an adverse health effect from one in 100,000 to one in 10,000. Such tradeoffs must result in positive net benefits, to the extent that they can be quantified.

The question then becomes, as eloquently articulated by Dr. Graham, Director, Harvard Center for Risk Analysis, "Can we afford to devote enormous attention to tiny, and in some cases, speculative and/or phantom risks, and neglect the larger risks that can be reduced at relatively modest costs to citizens?"

Unfortunately, there is both a public perception, and a political evaluation of risk. Dr. Graham points out that the public's perception that life is becoming more risky is not well grounded in actuarial facts. Since 1950, life expectancy at birth has increased from 65 to 72 years for males, and from 75 to 79 years for females. Dr. Graham continues that while it is difficult to validate or invalidate the public's perception that the overall quality of the environment is worse today than it was 5 or even 20 years ago, the best available evidence suggests that the quality of air, water and food has improved steadily since 1970. Regardless, the public's understanding of relative risk is imperfect, and he concludes that, "If we are to make further strides against premature deaths and impaired health status, it is critical that citizens and policy makers focus our limited attention span and scarce resources on the big risks."

And what are those big risks? Accord-

ing to Dr. Graham, the number of life years lost before age 65 are about comparable for injury, cancer and heart disease. But it is injury that is the dominant cause of lifelong crippling conditions, such as paraplegia and quadriplegia. He states that, "As a society, we frequently refuse to invest \$50,000 per life year saved in trauma prevention when much larger investments per life year saved are routinely made to prevent various environmental and occupational causes of cancer." He further notes that recent reviews of epidemiological and toxicological literature suggest that considerably less than 5 percent of human cancer can be traced to causes that are within the jurisdiction of the U.S. Environmental Protection Agency.

From a political standpoint, policymakers are insisting that incremental risk of cancer be reduced to less than one chance in a million lifetimes. While it is a fact that we know too little about the causes of cancer as they relate to pollution and/or contamination, and therefore should be concerned about these incursions into our pristine lifestyle, Dr. Graham points out that it is also true that a baby born today has a four in a million chance of being killed on the ground by a crashing airplane during his or her lifetime.

In considering risk, benefits and cost, Dr. Graham states that increasing the frequency of screening for cancer causes the marginal cost per life year saved to increase from less than \$10,000 to over \$250,000 and comments that it is hard to argue that we should be investing much more than \$250,000 per life saved, since a similar level of investment in prevention of heart disease, trauma or AIDS would be considered extravagant. In this regard, I understand that EPA's water quality regulations are based on a \$3 million to \$8 million investment per life year saved.

Now what can we do to bring some rationality to all of this? In my view, the most important thing is to convince the federal government and particularly the Congress, that a greater share of available resources has to be devoted to basic health effects research that addresses the contaminants that are found to occur in drinking water supplies today. By identifying those contaminants that present the greatest risks to exposed populations, quantifying their relative threat and establishing cost effective MCLs, the public will be truly served. To accomplish this, however, current law requires significant revision.

We need to understand the fundamental tenant of toxicology, that "dose makes poison" and how that applies to each contaminant found in drinking supplies. We also need to ensure that each federal agency makes use of the best available science in the performance of risk analysis and the results are available to the customer in terms laymen comprehend. People must understand that they are paying more to avoid a real risk and that they, and their children and their children's children, will benefit from the investment they are making in their drinking water system.

In summary, I believe this country needs to shift its priority from attempting to purify water to the point that it's a little more than H2O, to sound health effects research that allows quantification of the risk posed by those substances which sophisticated analytical techniques are now finding to exist in both raw and finished drinking water. Only by establishing such a process, can we continue to assure that limited resources are cost effectively spend for the benefit of the public, and that the cost of drinking water remains reasonable for all Americans. **6**

NAWC Centennial

by Catherine Gibbs Harris, APR West Virginia-American Water Co. Chair, Public Information Committee

Viva la 1995! Let's welcome the new year with open arms and local plans to celebrate the 100th birthday of the National Association of Water Companies. Much has happened in the water industry during this century and even more will occur in the near future.

The focus on drinking water is at an all-time high level of exposure and scrutiny, and we must not understate the tremendous scope of our responsibility to provide quality drinking water and quality water service to a population of 20,384,861 across the United States. As we all know, our responsibility includes a serious liability as well.

Clean, safe drinking water is an emotional issue. Our product is ingested by children, babies, the elderly and the chronically ill. As water purveyors, we should all be proud of what we do and not shy away from telling others that we do it well and with great sincerity and expertise.

We are asking NAWC members to take a moment and reflect on the advances made over the past 100 years; the growth the industry has experienced, and the many changes you've survived and that will continue to challenge your companies and your personnel. Then, please take some quality time and look at the future of your company and service areas to prepare yourselves for the most intense decade in the history of the water industry—1995 to 2005.

NAWC will conduct a year-long celebration of the investor-owned water industry which will consist of several items. To help commemorate our accomplishments, NAWC will sponsor a Centennial Dinner in Washington, DC, in February; WATER Magazine will publish a historical feature in each of the four 1995 issues; and, the Centennial Celebration will peak at the Annual Conference in New Orleans in late October.

The Public Information Committee has developed a "To Do List" of ideas to implement during the year. You can promote the centennial theme on your letterhead, in advertisements and bill inserts, on company vehicles, and in many other low cost ways. Let's step forward and remind our customers what a great job the investor-owned water industry has done and will continue to do to provide the most valuable resource and service-quality drinking water and quality service.

WINTER 1995 3

MUNICIPAL UTILITY VALUATION:

From the Municipality's Point of View

by James S. Kelly, Financial Manager Madison Water Utility, Madison, WI

Municipal officials throughout the United States are, by and large, conscientious in their role as custodians of public assets. However, because of the nature of the municipal beast, it can be difficult for a municipal official to make the transition to viewing a utility as a profitable entity.

Indeed, the perception of value is often expressed in more qualitative terms (ranging from "omigod, not that again!" to "Well! What have we got here!") rather than as a concept of asset value or return on investment. The "Bottom Line" for a municipality is often quite different from that of an investor owned utility.

A municipality will often have a comfort level in ignoring its utility unless issues of annexation or zoning occur. But, as the realities of complying with the Safe Drinking Water Act are brought into focus, attention of an unwelcome sort occurs. It is under these circumstances that opportunities for changes in utility organization can develop.

Here is the paradox: A well-run municipal utility can provide a positive value to the community, whereas a utility that has significant problems less attractive to a potential purchaser can be a negative factor.

Let's look at some of the perceptions of municipal utilities. Unfortunately, many of these perceptions are often true.

 "Cigar Box" accounting: Municipal utilities very often have fund accounting more suited to tax generated cash flows than enterprise activities. Concepts such as book value and depreciation are given nominal recognition, if at all. Even in those few states that regulate municipal water utilities, unrealistic depreciation schedules and artificially low allowed rates of return will be found, primarily because municipal officials are unfamiliar with these concepts.

- Basic utility operating practices may be missing. Standard maintenance procedures, infrastructure replacement policies, and even dependable maps of the system may not exist.
- Utility goals many be secondary to municipal policies. Such non-related notions as annexation policies and zoning requests could find their way into utility operations and planning. Other unspoken policies may result in the mayor's nephew finally finding a job in the water department.

Small wonder, then, that it takes something like the Safe Drinking Water Act to help officials "re-engineer" the municipal organization chart. Some states have recognized the problem. The New York State Public Service Commission has recently set up a plant to aid acquisition of small water utilities by means of rethinking traditional views of valuation and rate making. Their Acquisition Incentive Mechanism (AIM) provides for alternative ways to value small utilities. New York hopes to provide an incentive for very small independent firms to be acquired by larger firms.

On the other hand, a well run municipal utility can be a distinct asset. A utility that has fully costed water, good utility operating practices, and an infrastructure replacement policy can have the result of not only being able to absorb overheads and provide a reasonable return, but also to deal with the SDWA. One of the major differences between the municipal utility and investor owned utilities becomes apparent here. Municipal utilities typically have no access to equity funding beyond that of their own retained earnings. Another major difference lies in the lack of incentive to accomplish these goals. Realistically, utility goals are often lumped together with other municipal goals and then suffer from lack of attention.

Another dimension comes from the role of the municipal official as politician. Wearing this hat will invariably lead to the question, "What about the people?" Inevitably the private concern will strive to do the job with fewer people. As a selling point to stockholders this is an excellent tool. However, the municipal "stockholder" will often be the person in the job being targeted.

The municipality, then, looks at these issues:

- The utility as an annexation or zoning tool;
- The utility as a repository for personnel problems;
- The utility as a supplier of "free" services, the costs of which don't find their way to the tax roll,
- The utility as a source of cash under the guise of charges that may or may not be based on cost.

Modern planning and land use approaches minimize the usefulness of the water utility as a tool to control annexation or zoning. As the trend to effective land use planning develops, municipal officials will become aware that this tool is meaningless.

In a serendipitous situation, a combination of early retirement, attrition, and other jobs in the municipality will nullify the effect of any lay-offs involved in a privatization bid. The problem may well exist that the mayor's nephew would be out of a job; no one ever said it would be easy.

The price elements for a municipality will then include:

- · The cost of "free" services;
- The values of charges made to the utility;
- Capital recovery of the investment in the utility.

These elements must be balanced against the real value of the utility as a going concern composed of working assets providing an appropriate return. If done properly, this view of a utility will enable the municipality to find whether or not it is deriving real value from its investment. By holding the value of the investment up to scrutiny, two major questions develop: 1) Is the investment providing a real re-

turn to the owner?

(Note that fully costed rates must be included in the analysis. A utility with superficial pricing policies is passing along an unknown subsidy every time a bill is presented to a customer.)

 Is this capital best invested in a utility or in another municipal venture or investment? Long term treasury securities may be considered as a benchmark.

The water industry in the United States is leery of change. One of the reasons is that the quantum changes affecting the energy and telecommunication utilities have been slow to arrive at the water utility. Another is the structure of the industry-large numbers of small municipally owned utilities. The major difference between other utilities and water is that the product is ingested. The Safe Drinking Water Act, then, provides much the same incentive for change as the other utility industries. A large, well run, municipal utility will be able to deal with these changes. Other communities may well find an answer in having a proven investor owned utility provide water services.

James S. Kelly is the Financial Manager of the Madison Water Utility, Madison, Wisconsin. He has over 17 years experience in the utility industry, and has authored the Wisconsin Section, AWWA, policy on "Privatization, Consolidation, and Regionalization of Water Utilities in Wisconsin." Mr. Kelly is the 1991 recipient of the George Warren Fuller Award, and holds an M.B.A. in Finance from Loyola University.

WATER/WASTEWATER PRIVATIZATION

by Robert W. Poole, Jr. The Reason Foundation

Nineteen-ninety-three marked a continuation of the trend toward water and wastewater treatment privatization. Domestically, the most notable developments were the utilization of contract operations by larger cities and the increasing scope of services (e.g., entire public works departments) under contract.

In November 1993, legislation to amend the Clean Water Act to provide a definition of a "publicly owned treatment work" based on purpose rather than ownership was introduced by Senator Frank Lautenberg (D-NJ). By holding privately owned treatment plants to the same treatment standards as publicly owned treatment works (rather than more stringent standards), the bill is expected to remove an impediment to private investment in municipal wastewater treatment plants.

Two of the EPA's three pilot projects on infrastructure privatization moved forward in 1993.

In November 1993, Indianapolis awarded a 5-year, \$87 million contract for the operations and maintenance of its two advanced wastewater treatment plants to the White River Environmental Partnership. The contract will cut the city's annual wastewater treatment operating budget from \$30 million to \$18 million, or 40 percent. The city's facilities (combined capacity of 243-mgd) will be the largest in the country to come under private management.

Another EPA pilot project advanced in 1993 and in early 1994. The villages of Germantown and Carlisle, and the city of Franklin, Ohio, passed resolutions authorizing a consultant to negotiate a 20-year service agreement to shift ownership of the Franklin Area Wastewater Treatment Plant to Wheelabrator EOS (WEOS). The 4.5-mgd facility, which is owned by the Miami Conservance District, has been operated by WEOS since 1987. If completed in mid-1994 as expected, the transaction will mark the first full privatization of a grant-funded wastewater treatment plant ever, or of a municipal plant since the 1986 Tax Reform Act.

The city of Silverton, Oregon, the site of the third pilot project, has made less progress given that its plan relies on changes in the tax code. In terms of privatization beyond contract operations, two other projects are noteworthy.

The EPA has given the city of Petaluma, California, a \$30,000 grant to document the city's progress in structuring a service agreement for the design, construction, operation, and possible finance of a new \$25-million wastewater facility. The city's experience with a turnkey-private operation is expected to offer a viable privatization model. As of early 1994, the city was drafting a service agreement and preparing to issue RFP's by April.

The city of Laramie, Wyoming, is preparing RFQs for the upgrade and operation of its \$13-million wastewater treatment plant. The project will be notable because the turnkey portion of the contract will be financed with State Revolving Fund loans. The city was encouraged to adopt this privatization strategy by an August 1993-CH2M Hill study which indicated that, compared with the traditional procurement approach, privatization could reduce total project costs by at least 10 percent and accelerate project de *(continued on next page)*

WINTER 1995 35

Privatization, continued

livery.

In addition to a large number of O&M contracts awarded by small- and mediumsized cities, a few large cities either awarded O&M contracts or began reviewing privatization options in 1993.

In April 1993, Newark, New Jersey, awarded Profession Services Group (PSG) a five-year contract to manage the city's 80-mgd Pequannock Water Treatment Plant, which serves 500,000 people. The contract is expected to save the city \$1 million annually, or near 40 percent.

In 1993, the Philadelphia Water Department made two significant moves toward privatization. Following a report by Camp Dresser McKee indicating that the Philadelphia Water Department could secure significant savings by privatizing its sludge management operations, in October 1993 the department issued an RFP for those services.

In early 1994, the department selected Camp Dresser McKee to provide assistance in procuring a contract operator for the city's Southwest Water Pollution Control Plant, a 200-mgd advanced secondary wastewater plant.

Major sludge management contracts included Waterbury, Connecticut, Naussau County, New York, and San Diego, California.

One notable trend in 1993 was the increasing scope of management contracts to include entire water and wastewater systems as well as entire public works departments.

Swainsboro, Georgia, expanded its service contract with OMI to include the remaining public works department functions. OMI is now responsible for the city's street, vehicle and cemetery maintenance, and building inspection, and administration.

Roanoke, Alabama, awarded a threeyear contract to PSG for operations of entire water, wastewater, and natural gas systems. The \$300,000 per year contract will reduce the city's utility costs by about 30 percent.

Alton, Illinois (pop. 33,000), issued an RFP for a contract for the city's public works department, which includes water and wastewater systems, garbage collection, street maintenance, and golf course.

Similarly, PSG has been awarded five-

year contracts by Moore, Oklahoma, and Wakulla, Florida, which include responsibility for a wide range of functions beyond only wastewater treatment. These broader-scoped contracts join Pikeville, Kentucky (PSG); Mustang, Oklahoma (PSG), and Hinesville, Georgia (OMI).

Major International Developments

Britain's North West Water was very active around the globe in 1993. The U.K. water company led a consortium that was awarded a 20-year \$2.43-billion contract to build, upgrade, and operate Malaysia's national sewage system.

In Bangkok, Thailand, North West Water's consortium won a \$260-million turnkey contract for a 135-mgd wastewater treatment plant, 51-kms of interceptor sewers, and a 5-km tunnel. And the firm was awarded a \$9-million contract to design, build, and operate a wastewater treatment plant for the Portuguese territory of Macao.

North West Water also led a consortium which was one of the four to be awarded a 10-year contract to modernize Mexico City's water and wastewater treatment systems. Other winning consortium leaders include: Lyonnaise des Eaux-Dumez, Severn Trent, and Compagnie Generale des Eaux. Phase 1 of the contract includes census of users and installation of meters, phase 2, establishing billing systems, phase 3, infrastructure rehabilitation and expansion.

Cuernavaca, Mexico, awarded U.S. Filter a 12-year concession to design, build, own and operate a 14-mgd secondary wastewater treatment plant.

In late 1993, Wellington, New Zealand (pop. 160,000) issued an RFQ for the design, construction, and operation of a wastewater treatment plant. The city is interested in Build-Own-Operate-Transfer proposals offering private finance options.

Price Waterhouse and Black and Veatch were selected for privatization studies of water-supply systems in Jamaica and Chile, respectively. The Asian Development Bank is funding a study of the privatization options for the water-supply systems serving industrial and resort areas in Thailand.

Mr. Poole is President of the Los Angeles, California-based Reason Foundation. The Reason Foundation expressly retains the copyright to this material. Any requests for permission to reprint the article should be directed to the undersigned.

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Are there other people within your company that should be getting WATER magazine, but are not? NAWC will be glad to add any number of employees from Active Member companies to the WA-TER mailing list. Just call the office at 202/833-8383, or clip this ad out and mail it to:

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1994 Water Utility Compensation and Benefits Survey Results

by Gerry Stoffel, Managing Principal, Saje Consulting Group

The 3rd Annual Investor-Owned Water Utility Compensation and Benefits Survey consisted of the following two parts:

Part 1: 1994 Investor-Owned Water Utility Compensation and Benefits Survey

The traditional compensation and benefits survey was published and distributed to participating companies in late July. The survey analyzed annual cash compensation (i.e., salary and annual incentives) for 21 executive, managerial, supervisory and professional positions covering 322 incumbents at 18 water utilities. The survey was conducted over a three month period between April and July 1994. In addition, the survey gathered general policy and practice information concerning 401(k) plans.

Part 2: Customized Position Analysis

This year, a number of utilities requested a more detailed competitive analysis of their company's positions. The customized analysis lets companies request a detailed review for individual positions from a list of 48 positions. The positions covered in the "custom" analysis include the 21 positions from Part 1 and 27 additional positions.

PART 1: 1994 SURVEY HIGHLIGHTS

A. Compensation

1. Salary

As with previous surveys, our analysis

showed a strong correlation between salary level and various measures of position responsibility (i.e., revenues, customers, assets, pumpage and employees). Generally, management at larger water companies are paid more than their counterparts at smaller utilities. This relationship is most pronounced for senior management (e.g., Chief Executive Officer, Top Financial Executive, etc.). A CEO moving from a company with \$25 million in revenues to a company with \$100 million in revenues could expect a salary increase of 42%. A CEO moving from a company with \$100 million in revenues to a company with \$200 million in revenues could expect a salary increase of 19%. A top financial executive moving from a company with \$25 million in revenues to a company with \$100 million in revenues could expect a salary increase of 36%. A similar executive moving from a company with \$100 million in revenues to a company with \$200 million in revenues could expect a salary increase of 17%.

For lower level, non-supervisory, multiple incumbent positions (e.g., engineers), the size of this company has minimal affect on salary. However, for some supervisory positions (e.g., Customer Service Supervisor), we found a strong relationship between salary and the average hourly rate of subordinates. A customer service supervisor whose subordinates make \$13 an hour would receive a 14% higher salary than a supervisor whose subordinates make \$10 an hour. A customer service supervisor whose subordinates make \$16 an hour would receive a 10% higher salary than a supervisor whose subordinates make \$13 an hour.

2. Annual Incentives

Two-thirds (12 of 18) of the survey participants provide annual cash incentives to at least one executive position. The prevalence and size of incentives decreases as we move lower into the organization. For example, the median target incentives for a Chief Executive Officer and Top Financial Executive are 25 percent and 15 percent respectively.

B. 401(k) Practices

Prevalence and Participation

16 of 18 survey participants have 401(k) plans. On average, 80 percent of eligible employees participate in the plan.

Contribution

- Employee Contribution: 10 of the 16 companies allow the employee to contribute more than 10% (8 companies) or have no stated maximum contribution (5 companies). Note: the 1994 limit by the IRS is \$9,240.
- Company Match: 9 of the 16 companies match 50% of the employee's contribution. 10 of the 16 companies provide maximum contributions between 2% and 4%. The type of company match most frequently used is company stock (10 of 16 companies).

(continued on next page)

Compensation, continued

Investments

- 1. 14 of the 16 companies have the employees direct the investment of their 401(k) assets.
- 2.14 of the 16 companies provide guaranteed income contracts as well as mutual funds. The most frequently mentioned (7 companies) number of mutual funds offered is 5 funds (7 companies). Also, no participant provides more than 5 funds.

PART 2: CUSTOMIZED ANALYSIS HIGHLIGHTS

The customized analyses provides a greater level of detailed analysis for a company's individual positions. The analysis takes into account:

- 1. Local salary levels for the geographic area in which your positions are located. The local labor market in which you compete for workers can significantly influence salary levels of lower level exempt and non-exempt positions. For example, secretaries and supervisors in northern New Jersey or Los Angeles are paid differently than in Maine.
- 2. Relevant size or scope. There is a direct correlation between the size of the com-

pany (e.g., revenues, customers) and the competitive salary level for executive and upper middle management positions. The customized analysis will take into account your position's size and scope in developing the overall competitive salary level.

- 3. Utility and general industry data (when applicable). For example, a General Accounting Manager position is one that can be found in both utilities as well as non-utility firms. Therefore, the customized analysis would present the competitive salary being paid in comparably sized utilities as well as comparably sized general industry firms,
- 4. Significant responsibility differences between your company's position and the survey position. For example, if your customer service manager is also responsible for management information systems, an adjustment should be made to the General Accounting Manager competitive market data to take into account the additional responsibilities.

The following exhibit illustrates how the Customized Analysis is presented.

SURVEY METHODOLOGY

The survey was developed through a series of discussions and meetings with representative participants. This approach helps ensure that the survey positions and topics are relevant for all participants.

Participants represented a wide array of investor-owned water utilities with respect to size, business diversity and organization structure.

The annual survey is intended to provide management and their Boards with timely and useful compensation related information which will assist them with either auditing their current compensation practices or developing new programs.

ABOUT SAJE CONSULTING GROUP

Saje Consulting Group is a human resource consulting firm based in Langhorne, Pennsylvania. Saje principals have consulted and worked with NAWC member companies on compensation and benefits related issues since 1984.

Saje is currently planning the 1995 survey. If you are interested in participating in the 1995 survey or would like to receive detailed information on a Customized Position Analysis for positions within your company, please contact Gerry Stoffel or Tom Howitt at Saje: Saje Consulting Group, Inc., 390 Middletown Blvd., Ste. #602, Langhorn, PA 19047; telephone: 215/741-2669; fax: 215/752-2299. *

	(Compensation in \$ Thousands)								
Company Position	Survey Position/ Scope	Industry	Saje (2)	Ecs (3)	Conf'l (4)	Ecs (5)	Initial Market Consensus	Adjustment (6)	Final Market Consensus
Vice President Operations	Top Operations Exec./ \$90MM Revenues; 200,000 Customers	Utility General Industry	\$xxx No (\$xxx Comparab	- le Position		\$1000	+10%(a)	\$xxx
Accounting Manager	General Accing. Mgr./ \$90MM Revenues; 200.000 Customers	Utility General Industry	yy -	yy -	- w	-	W W	5%(b) 5%(b)	W W
Customer Service Supervisor	Customer Service Supx/	Usliy	ш	22	-	-	22	-	22
1.4.0.20	Northern New Jersey	General Industry	-	-	22	22	22	100	22

1004 COMPETITIVE COMPENIEATION DATA(1)

(1) Compensation survey data has been updated to reflect competitive levels as of January 1, 1995.

[2] Soje, Inc., 1994 Intestor-Owned Water UKRy Compensation and Benefits Survey.

[3] Executive Companisation Services, Inc.: Utility Industry survey providing scope related and geographic pay data.

(4) Confidential Survey within Soje's library: General industry survey providing executive and middle management pay data.

(3) Executive Compensation Services, Inc.: General Industry survey providing scope related and geographic pay date.

6 Adjoutments

> (a) +10% adjustment reflects the additional responsibility associated with managing the Human Resources function. (b) -5% adjustment reflects not being responsible for the general ledger.

\$ Safe Drinking Water: At What Price?

Water Leaders Discuss Critical Issues and Trends in the Water Industry as Part of a CoBank Water Leadership Survey

> by Peter R. van Dernoot with Nancy Jorgenson

CoBank executives recently interviewed 33 water industry leaders throughout the United States representing all facets of the water industry. This is their report.

"The public is willing to pay more for water that meets new safety standards," says James Groff, executive director of the National Association of Water Companies. "The question is, how much more?"

It's clear to rural water industry leaders that everyone wants good drinking water. It gets murky when you try to answer questions about how to provide quality water:

- How safe is safe?
- · At what price?
- Can rural water providers, especially small providers, meet tougher health standards and survive increased federal regulation?
- What structural changes must water companies make?
- What type of systems can provide the best water service?
- What financing alternatives are available?

Ken Hide, vice president and manager of CoBank's Rural Water Department, observes that water leaders are deeply concerned about resolving these issues. "Despite the tough issues, each executive interviewed remains optimistic about his company, the industry and even the national economy," he reports. "In fact, 64 percent of the executives believe the economy will improve through 1995, and 29 percent think it will remain essentially the same. All anticipate increased revenues in the short term, although coupled with increased plant and testing expenses. Virtually all expect to hire additional employees."

Critical Issues

When asked to name the three most critical issues facing the water industry, James Groff, executive vice president of the National Association of Water Companies (NAWC), bluntly expresses the view of many: "Regulation. Regulation."

In fact, 55 percent of the interviewees identified "increased regulation" as the number one issue. "Regulations will drive everything, and regulation is here to stay," says Tom Duck, executive director of the Texas Rural Water Association.

Another 23 percent tag the closely related issue of financing as their principal concern. Funding regulatory compliance especially worries smaller company leaders as they have fewer customers to share the cost.

Most Critical Issues

55%-Increased regulation

23%-Financing

22%-Restructuring, aging plants, available sources of water Given anticipated Congressional reauthorization of the Safe Drinking Water Act (SDWA), and the growing list of regulated contaminants, it's not surprising to see regulation and financing ranked at the top. "There has been a quantum leap in the regulation of contaminants," says Jack Hoffbuhr, deputy executive director of American Water Works Association (AWWA). "Regulations on lead alone grew from three pages to 500 pages."

That's going too far, contend some respondents. "SDWA doesn't respect local conditions," says Jan Wick, president, Avion Water Co., in Bend, Oregon. "Their view needs to be moderated." Adds Groff: "EPA admits they have regulated contaminants without having all the necessary scientific background."

While SDWA testing requirements are burdensome, some believe they are necessary to provide safe water. "We must succeed in making logic out of the regulations," says Jim La Plant, manager of the Central Iowa Water Association in Newton, Iowa. "New research and development, technology and financial resources will make this possible."

David Monie, manager of the Logan Wells Water Co. in Cherry Hills, New Jersey, says, "Testing costs have become much less of an issue than a few years ago because of competition to get the testing (continued on next page)

At What Price? continued

business. It will get better for the water industry, not worse."

Still, the regulatory price tag steepens. EPA estimates compliance costs for new regulations at \$14.6 billion, of which \$8.6 billion will fall on the shoulders of small water companies. "When you see water bills go from \$20 to \$50 a month, will the public be able to pay?," asks Charles. Hughes, commissioner, North Carolina Utilities Commission.

Structural Changes Expected

To deal with regulations and their costs, industry leaders expect major structural change. "New regulations are driving infrastructure changes," says Eddie Daniel, general manager of Cash Water Supply Co., in Greenville, Texas.

Of those interviewed, 35 percent expect their own organizations to experience an acquisition soon, and 69 and 64 percent, respectively, expect more mergers and consolidations.

Structure Changes

69%-mergers 64%-consolidations

35%-acquisitions

More water companies will look for ways to share the expense of billing, meter reading and other activities. "I see formation of major water wholesalers," says Rob Johnson of the National Rural Water Association. "That's the way of the future, the way EPA is pushing us."

Consolidation cannot be avoided, agrees Ken Peterson, a lawyer with Craig, Small and Werkenthin, a law firm in Austin, Texas. "SDWA compliance will impose higher costs on the public water supply, which consumers will resist," he says. "Economies of scale just don't apply in small companies."

AWWA encourages co-op arrangements on equipment and supplies. AWWA's Hoffbuhr notes that small systems themselves are beginning to see that they can't afford specialized personnel and compliance. "As state regulators find small systems out of compliance, they will urge the companies to hook up with a neighbor," he says.

Mark Safty, an attorney with Holland and Hart of Denver, works with water systems across the West. "If water operators are smart, they'll realize the financial advantages of size," he says. "Economies of scale ease costs such as attorney fees, compliance and general operation."

But changes won't come easily notes Nelson Stader, a retired water company manager and a member of CoBank's board of directors. "It will be hard for some companies and managers to give up their historical turf, but the need is there," he says.

Rich LaRochelle is legislative director for the National Rural Electric Cooperative Association (NRECA). "Some small systems may be hesitant to merge with another system," he says. "Yet the reality is that environmental regulations and economies of scale will drive a move toward consolidation. Everyone believes there will be fewer systems and that these larger systems will be able to better serve their communities."

LaRochelle represents the nation's rural electric co-ops, which have become more interested in the water industry. He says a significant portion of people served by rural electric co-ops are not served by water systems. "NRECA's marketing surveys show that 25 percent of all electric co-ops in the nation will do something on the water issue," he adds. "Twenty percent say they will own or operate a water system in the future."

States will compel change as well. According to Hoffbuhr, states won't have the resources to regulate 1,000 water systems each. Watch for state commissions forcing developers to work with existing systems. "The days of providing a silent service are over," says Hoffbuhr. "The industry will have to be far more involved with the public to communicate increasingly complex issues."

Environmental concerns continue to be complex and controversial issues for the industry. As water demand increases, so will conflict between agricultural and environmental interests. Water companies are caught in between. "There is a natural tension between farmers and their cooperatives and their water companies," comments Tom Van Arsdale, vice president of environmental policy for the National Council of Farmer Cooperatives (NCFC). "Environmentalists promote legislation in areas of wellhead protection plans, irrigation, runoff, watershed and groundwater. It's an opportunity for us all to work together toward real world solutions. Our Environmental Policy Committee at NCFC works on those solutions. And some of our member co-ops take a holistic approach to dealing with these problems."

Funding Sources

New regulations and the inevitable structural changes and rising costs pose another concern for water companies, as Ken Petersen succinctly summarizes: "Where is the money going to come from?"

Financing needs include both increased compliance costs and upgrades as well as plant expansion and line extensions. Estimates of the amount of capital as a percentages of existing plant required during the next three years range from 10 percent to 400 percent, most of it long-term debt.

Traditional financing sources include Farmers Home Administration grants and loans, state bond banks, community block grants, and a few dedicated private sector sources such as CoBank. However, funding does not come as easily or quickly as the leaders would like. Water company executives would love to see faster approval of loans and more availability of both short- and long-term loans. They also prefer fixed rates for debt financing in order to better calculate costs, though a few want the option of both fixed and variable.

Eddie Daniel of Cash Water Supply cites the need for faster turn-around: "It's unrealistic to tie down the engineering for a project today when you can't get federal financing for two years."

Charles Hughes of the North Carolina Utilities Commission points out a common complaint among small system borrowers. "Most banks still require water company owners to use their personal assets as collateral," he says.

Of those interviewed, 67 percent think federal assistance should help finance the impact of the SDWA and the Clean Water Act. Additionally, 75 percent feel that state revolving funds should be available.

"If the government mandates programs such as the SDWA and the Clean Water Act, the government needs to pay for them," says Fred Curry, chief of the Water Utilities Branch of the California Public Utilities Commission. "Otherwise, it will keep on mandating more and more rules. State revolving funds have to be there to bail out the extreme situations. Water is a health and welfare issue."

Stan Patty, manager of Newcastle Public Works Authority in Oklahoma, agrees: "If the federal government puts the monkey on our back, they should make the money available."

Hoffbuhr says that, traditionally, AWWA is opposed to revolving funds, but some state grant funds may be needed to keep rates acceptable: "We need some sort of revolving fund to help basket cases, but there won't be enough for all systems. We need a variety of financial mechanisms."

In Scottsdale, Arizona, Gary Goodman, president of Bermuda Water Co., echoes the sentiment. "Without state revolving funds, testing alone could bankrupt some of the very small companies," he says.

But not everyone wants public assistance, state or federal.

"If you have a debt, you should pay it," Nelson Stader says. "Revolving funds should be a last resort." Lawrence Rider of Nittany Water Co. in Howard, Pennsylvania, adamantly opposes a revolving fund: "It will just get burned up in administration and won't help people."

Jan Wick at Avion Water Co. says, "Public assistance funding disguises the cost of SDWA, and the citizenry needs to know the real cost of government programs." Jim Gallagher, chief financial officer of Southern California Water Co. in San Dimas, fires a final volley: "Better government is less government."

The debate may be moot. Listen to Bob Nash, U.S. Department of Agriculture undersecretary for Small Community and Rural Development: "There will never be enough money for what we want to accomplish without the active involvement of the private sector. Government cannot, and should not, serve as the main funding source for economic revitalization. I'd like to see more public-private partnerships where our rural development agencies work with lending institutions to leverage federal resources."

Clearly, private financing will play a larger role. "Federal guarantees would help," Rich LaRochelle comments. "USDA's current policies don't encourage effective use of private funding sources. We need to make sure there's a private component to stretch available federal dollars." Phil Sherman, a CPA at Sherman, Barber and Mullikin in Madison, Indiana, notes that while financial options have increased, more options are needed. "Water companies are just beginning to learn about commercial loans," he says.

NAWC's Groff explains a benefit of private financing: "You get funds faster, and time is money."

Mark Safty at Holland and Hart represents many public water systems that issue their own debt. "The public debt market is bound up with rules; a company has to go to thousands of bond holders to get things changed," he says. "The flexibility provided by private banks can save public systems hundreds of thousands of dollars."

But can-and will-private lenders put up the money? While many leaders say they'll rely on local and regional banks for financing, they're wary about local bankers' willingness to lend to the industry.

Pennvest is the bond underwriting arm of the state of Pennsylvania. "There is inadequate credit available to finance the water industry in rural America," says Paul Marchetti, executive director at Pennvest. "We can't meet demand-we have very little capacity to fund private systems."

If private lenders step forward, will they understand local industry needs? "There is a Nebraska way of doing things and there is a Wall Street way," says John Trecek, vice president and general counsel of Municipal Bond Underwriters in Omaha. "It's best when you know what will work."

What Price Water?

Wherever funding comes from, a glass of water is going to cost more in the future. "Texans are used to cheap water," says Eddie Daniel of Cash Water Supply, "but the price is going up. Water is our most essential commodity." Tom Duck predicts rate shock: "Some water systems haven't raised rates in 20 years—and brag about it."

Gene Whatley, executive director of the Oklahoma Rural Water Association, expands. "Since water falls from the sky, people think it should be free. Well, it costs a lot to deliver. People don't understand the impact of SDWA."

Water leaders believe consumers will pay much more than they do now for good quality water. The question is, how much more?

Several suggest that the monthly cost of cable TV is a good upper benchmark. But many feel rates could easily double, and others foresee rate hikes as high as 200 to 300 percent where aging plant infrastructure requires replacement.

"It's what you're used to," concludes Hoffbuhr. "It may not be the rate as much as the percentage increase that sets people off."

Who Can Provide the Best Water Service?

Uncertainty about the price of a glass of water raises yet another question: Which delivery system provides a quality glass of water at the most economical price? Those interviewed are evenly split in their preference of consumer-owned cooperatives or investor-owned utilities (IOUs). At AWWA, Hoffbuhr maintains a neutral stance: "The key is public involvement, from the people who drink the water."

The Future?

As water companies, regulators, financial institutions and ultimately the paying consumer struggle with these tough issues, what does the future of drinking water look like in this country?

One thing is certain: demand for quality water will only increase, particularly in rural America. A March 8, 1994, article in The Wall Street Journal noted that several of the 20 fastest-growing counties in America are rural. "The shift reflects the restructuring of corporate America," the Journal reports. "Businesses, to slash costs, are moving large chunks of their operations from downtown office buildings and suburban office parks to more rural areas."

Those businesses, and homes that will rise with them, will need water.

"It's vital," says Rob Johnson of NRWA. "If you don't have water and waste management, industry won't move in." That's one reason the nation's rural electric cooperatives are carving out a niche in the water industry. "Electric cooperatives recognize water development as an opportunity to serve their communities," says NRECA's LaRochelle.

Many leaders emphasize educating the (continued on next page)

At What Price? continued

public and regulators about water issues. "We have to get better organized to educate regulators who aren't familiar with local water issues," suggests Jim LaPlant. NAWC's Jim Groff adds, "Educational efforts must focus on the impact of regulation and how it's driving up costs."

AWWA sees a need to educate the public as much as regulators. "Technicians cannot make the decisions on their own about the critical issues of the industry," Hoffbuhr says. "The public must be involved." Just as crucial—educating and attracting high-quality employees. "Utilities have focused on treatment, not maintenance," he says. "Keeping systems maintained and clean will be increasingly important."

The public's role and public perception of the water industry will be key, reflects CoBank's Ken Hide, in summarizing survey results. "The good news is that quality leadership is in place. We are confident that good water will continue to be available to consumers. The challenge will be explaining the cost of quality to the public."

Peter R. van Dernoot is a consultant for CoBank, Rural America's Cooperative Bank, which provides financing to creditworthy water and waste disposal systems serving largely incorporated areas or communities of 20,000 or less population. Nancy Jorgensen is manager of customer communications for the bank. CoBank provides more than \$159 million in loans and commitments to systems in 18 states. The bank also provides financing to rural electric co-ops, rural telecommunications systems, agricultural cooperatives and other businesses serving rural America, and finances exports for the benefit of U.S. agricultural cooperatives. For more information on CoBank, call Denver, 1 (800) 542-8072, or Atlanta, 1 (800) 255-7429.



by Peter Shanaghan Small Systems Coordinator U.S. Environmental Protection Agency

We believe the answer for small systems is fundamental structural change—not necessarily shared pipes, but shared management. While a single small system might not be able to afford the services of a qualified operator, a group of systems probably can.

There are about 20,000 community water systems which serve populations of less than 100 persons. There are another 20,000 systems that serve 100-500 persons. Many of these systems are weak institutions and will be hard pressed to provide safe, reliable service and comply with SDWA standards.

Many of these systems could improve their performance through restructuring. Restructuring can take many forms. Some systems can "pull themselves up by their bootstraps" by raising rates, installing meters and adopting financial and management discipline. Others will need to contract out for operations and management services. Still others will find it best to physically or administratively merge with another system.

Practical, appropriate technologies are available, and more are being developed, for use by small systems needing treatment. These technologies, coupled with remote monitoring and control of the technology, offer great promise for providing safe, reliable service to small systems, even if the systems are geographically isolated. Some state drinking water program are embracing these new technologies while others are more conservative. EPA hopes to gain new authority through SDWA reauthorization to better facilitate the use of lower cost technology.

Many in the water industry have devoted great energy to seeking reduced regulation of water systems. I believe the public interest would be better served by focusing this energy on addressing the fundamental, underlying problems in the industry. Many creative solutions are available. Collectively, we need to stop talking about it and start acting to improve small system performance.

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Executive Director's Report

by James B. Groff

It's difficult to believe that another year has drawn to a close. It has been an extremely busy one, replete with many new ideas and initiatives. Successes include the Annual Conference in Scottsdale, the "Fly-In" in February, heightened small company activities, greater interface with the federal agencies and water programs at each NARUC meeting, to name but a few.

Certainly there was much to provide encouragement, but there were also frustrations. Predominantly, the lack of success, despite a great deal of hard work by many, in repealing the tax on CIAC and reauthorizing the Safe Drinking Water Act (SDWA).

The failure to repeal the tax on CIAC was particularly frustrating, because despite the IRS position not to oppose repeal of the tax, the strong support of Rep. Bob Matsui (D-CA), Andy Jacobs (D-IN), and many others, and the agreement of the Chairmen of the Finance and Ways and Means Committees not to oppose repeal of the tax, the necessary provisions were never carried to the House or Senate floor because there was not tax legislation that could act as a vehicle to carry these provisions.

Nor did the Safe Drinking Water Act reauthorization fare any better. Despite many, many hours of negotiations between Coalition members and Senate and House staff members, which ultimately resulted in compromise bills being enacted in each house, time ran out before differences could be resolved and a compromise bill passed for the President's signature and enactment into law.



Nevertheless, something is amiss. At this point in the year, life in the NAWC offices should not be nearly as hectic. After a very successful conference, staff should be engaged in wrapping up its details and planning and initiating 1995's efforts.

However, that is not the case. Not only are preparations already underway for the Association's 99th Annual Conference in New Orleans, staff is also enmeshed in developing the details of several special activities, the first of which is scheduled for February 28, 1995, commemorating the Association's 100th anniversary. This date allows the Association to invite commissioners and commission staff attending the National Association of Regulatory Utility Commissioners winter meetings in Washington, D.C., to the event. In order to reduce travel, the Board wisely decided to combine the Association's mid-year meetings (Nominating Committee, Executive Committee and Board of Directors meetings) and annual Congressional "Flyin" with this first observance of the Association's centennial.

Complicating staff efforts, however, is contractor work in connection with the renovation of the Association's office spaces in downtown Washington, DC. The renovation is being undertaken as a part of the Association's renewal of its office space lease for five years.

One of the first issues to claim the Association's attention in 1995 will be reauthorization of the Safe Drinking Water Act in the 104th Congress. In addition, however, since the Republicans control Congress and have promised a middle income tax cut as part of their "Contract with America," there should be an excellent opportunity to repeal the tax on CIAC. Both of these issues will be at the core of the Government Relations Committee's deliberations as we enter a potentially bountiful Congressional session. Look, however, for a different Congress, particularly in the House where not only will committee chairs change from Democrats to Republicans, committee names may change from (for example) "Ways and Means" to "Revenue" and "Energy and Commerce" to "Commerce and Health." Environmental issues (e.g., SDWA, CWA, etc.) apparently will be under the jurisdiction of the new "Environment and Natural Resources" committee, whose chairperson has yet to be named. Further, not only are there a number of defeated incumbents and their staff looking for employment, there are also committee staff vying for new and/or re-(continued on next page)

(continued on next page)

Executive Directors Report, continued

organized committees' positions. Never a dull moment in your nation's capital.

Along with its Hill efforts, the Association will continue to pursue with Treasury lengthening the terms of O&M contracts of government assets funded with tax exempt financing, and broadening the definition of "for the public good" as it applies to exemption from the tax on CIAC.

The new format, began last year, for the annual meeting of the Association's Board of Directors in Scottsdale, Arizona, generated interesting discussion and many constructive ideas. Subsequent to opening remarks by Board Chairman Barr, Board members discussed, over lunch, staff provided summaries of the meeting's action items as well as other relevant issues. Officers at each table then summarized the exchanges after President Tompkins' and the Executive Director's synopses of Association activities for the year.

At this meeting, the NAWC's Board of Directors approved an infrastructure white paper, revised the subsidy policy for small company participation in Association events, approved the Florida Chapter's bylaws revisions and a 1995 Association budget totalling \$1.6 million; elected officers and the 1995 Nominating Committee and reviewed standing committees', regulatory relations', government relations' and the WICC's activities.

The Board approved budget for 1995 anticipates expenses exceeding projected income by \$116,000. Expenses reflect a continuing increase in Association activities and a commitment to recognize 100 years of achievement. They also reflect the Association taking advantage of an opportunity to lease adjoining office space. Had the Association not taken advantage of this opportunity, it would have forfeited its chance to expand during the remainder of its five-year tenure in this building. Nevertheless, operating with a deficit depletes reserves, and, accordingly, the Association may need to consider a modest dues increase in 1996.

During his presidency, Bill Holmes initiated a program designed to revitalize the Association's committees. Subsequently, in early March 1993, members of the Executive Committee met to discuss and frame issues for the Association's committees to undertake. During that meeting it was agreed that, in general, committees should be asked to pursue specific issues, as well as encouraged to develop responses to concerns raised by committee members. It was also agreed the committee chairs should discuss committee activities during an Executive Committee hosted breakfast for committee chairmen at each annual conference. In Scottsdale, the Executive Committee-Committee Chair breakfast revealed that almost all of the NAWC's standing committees were involved in activities that will provide significant benefit to the Association's members.

Because of space constraints, only a few of the committees' plans can be reported here. Regardless, the following will give some idea of the scope of committee activities envisioned in 1995 and beyond.

The Accounting Committee worked extensively on reformatting the Association's F&O report. This allows separately listing holding company information and adds consistency to the report. Committee members, principally Gail Brady, also extensively investigated, for accuracy, the data submitted for the report by member companies. In addition to making presentations at various NARUC meetings, this committee is attempting to make itself more accessible to both external organizations and to the Association's membership. Positive response to these efforts is beginning to give the committee greater recognition within the utility industry.

The Association's Committee on Chapters is striving to make all chapters more active by coordinating the exchange of officers at chapter events, exchanging information and hosting a meeting of chapter chairpersons to share information and promote organizational initiatives.

The Customer Service Committee will coordinate both an Eastern and Western Customer Service Conference; distribute a customer service survey and develop an "idea booklet" that will ultimately be provided to the membership. The results of a customer service survey, which is designed to give each company a chance to evaluate itself as well as evaluate its performance against other companies, will be entered into a database at the NAWC's Washington office for subsequent use by Association members. A health care benefit/cost (as a percent of payroll) survey will be distributed in early 1995 by the Employee Relations Committee. Committee members have particularly gained from discussions of a wide variety of employee related issues, which are in many instances unique to water utilities, during committee meetings. The committee is seeking additional members and is pursuing the development of a system to collect, and subsequently disseminate, additional information on health care matters, as well as issues relating to labor laws.

The primary mission for the Finance Committee is to expedite commission approval of financing of capital intensive facilities. They also hope to proceed with the development of a financial database and participate in meetings with the NARUC Water and Technology Committee that address financial matters. New projects for 1995 will consist of reviewing company insurance needs for major risks, such as catastrophic coverage, and enhancing the image of the investorowned industry within the financial community.

The focus of the Government Relations Committee will be to pursue federal legislation and regulations that are burdensome to the industry or impede privatization, including repeal of the tax on CIAC and revisions to the SDWA, that will make the law more cost effective, efficient and practical to implement.

In addition to investigating possible improvements to WATER magazine, the Public Relations Committee is participating in the development of events designed to recognize the 100th anniversary of the Association.

The Rates and Revenues Committee has completed a draft paper on "Construction Work in Process and Post-In Service Property." The committee plans to submit this paper for approval to the Executive Committee and subsequently discuss it with the NARUC Staff Committee on Water. In addition, the committee is asking chapters to report recent rate decisions and is pursuing a "regulatory event" notification process that would allow the committee to participate in such events in pursuit of the Association's goals. In this regard, staff was asked to investigate the need for a fax hotline, which could be used to inform members of upcoming meetings,

and initiate a system of indexing the various white papers and position papers that have been developed to date.

In addition to presentations to the NARUC Attorney's Conference, the Regulatory Law Committee is pursuing a white paper on the distribution of the gain of sales on utility property. The committee's efforts on the paper have been delayed, but it should be complete by year end.

The Regulatory Relations Committee will use infrastructure and privatization as the principle issues to be discussed during the various NARUC regional conferences in 1995.

Now that the Small Companies Committee has an insurance program, a short form bookkeeping program and a financing program underway, it is looking to provide a computerized bookkeeping system for small systems. This committee is also investigating expansion of the Association's insurance and financing programs in order to improve their availability to members, and exploring the potential for allocating state revolving funds on a regional basis.

The Taxation Committee believes that it would be advantageous to develop a link to NARUC and participate in various NARUC meetings. The committee will provide support to the repeal of the tax on CIAC effort and to the Association's attempt to lengthen O&M contract terms to 25 years, establish a clearinghouse of tax rulings and continue to pursue the consolidated tax adjustment issue.

Last but not least, the Water Technology Committee provides technical support on an "as needed" basis. The committee plans to become more involved in OSHA (specifically proposed federal sentencing guidelines for corporate environmental crimes), and analyze reports that misrepresent the drinking water industry.

1994 was an active year and 1995 promises even greater activities. We look forward to the new year and its challenges and wish each and every one of you the best for 1995.

P.S.

The success of the Association's 98th Annual Conference in Scottsdale, Arirona, has been widely acclaimed. Despite the fact that the Association's staff conference coordinator, Mike Horner, had to leave to attend to matters associated with his father's sad and untimely death, the conference "came off without a hitch." That fact is not only a tribute to Mike's vision and planning, but also a tribute to the dedicated individuals at Bridgeport Hydraulic Co. (the host for this conference), and particularly Dan Neaton and his "team," all of whom were guided by Jack McGregor. Not to be overlooked is the resourcefulness of Audra Zellner of NAWC's staff, who stepped in and took over many of Mike's responsibilities. As an unusually involved participant in this particular conference, I commend each and all for their superb work, and thank them for their outstanding efforts.

NRRI Report on Revenue and Conservation

The National Regulatory Research Institute (NRRI) recently released the report, "Revenue Effects of Water Conservation and Conservation Pricing: Issues and Practices." The report was written by Dr. Janice A. Beecher, NRRI Senior Research Specialist; Dr. Patrick C. Mann, NRRI Associate and Professor of Economics, West Virginia University; Dr. Youssef Hegary, NRRI Senior Research Associate, and John D. Stanford, NRRI Graduate Research Associate.

Water conservation can be exceedingly beneficial to the environment, society, and consumers, but not necessarily to water supply utilities (especially in the short term). Philosophical support for water conservation invariable encounters the practical issues of water utility economics. Conservation behavior and conservation pricing affect the balance between the price of water and the quantity of water demanded. Depending on a utility's predetermined revenue requirement, changes in quantity or in price may or may not result in revenue deficits, surpluses, or consequential instability.

The disincentive for water utilities to promote conservation appears to be strong. Traditional economic regulation tends to reinforce the disincentive for utility-sponsored conservation. Regulated utilities generally are more motivated to invest in supply-side resources and increase sales than to engage in demand management. Reductions in utility sales through conservation can cause revenue erosion and uncertainty, which in turn can reduce profits to investors and increase perceived risks. However, reductions in revenues may be accompanied by reductions in costs. Moreover, revenue uncertainty for water utilities can be anticipated and quantified, and coping strategies can be developed through improved utility planning.

Commission policies and practices in the area of water conservation are evolving, as revealed through a detailed NRRI survey of commission staff members. Generally, commission policies and preferences in the area of energy conservation have not been transferred to the water sector. Although commission experience in the water conservation area remains somewhat limited, staff members are highly aware of conservation and planning issues and their potential relevance to water utility regulation. Commission interest in efficiency pricing and conservation-oriented rate structures appears to be growing. In several states, policies related to water conservation and planning were under development at the time of the NRRI survey. However, some state commissions clearly have not embraced the idea of water conservation. In general, utility conservation programs must be shown to be cost-effective before cost recovery is allowed by regulators. Like other utility activities, conservation activities involve a degree of regulatory risk.

Developing industry-specific policies on conservation and conservation pricing is a formidable challenge. In meeting this challenge, water utilities and regulators have begun to recognize efficiency as a viable resource option for the water sector. Many of the concerns about the effects of conservation on water utility revenues can be addressed by taking a long-term, efficiency-oriented perspective.

Regulatory Relations Report

by Sharon L. Gascon

The NARUC Water Committee met in mid-November during the NARUC's 106th Annual Conference and addressed a host of regulatory issues including water research needs, small system viability and communication with ratepayers on the rising cost of water. The ever growing interest by regulators in water issues has caused this hard working committee to expand the length of its future committee meetings and request more water specific economic research.

On the committee's agenda is a seminar on privatization, to be held on Sunday, February 26, 1995, at the J.W. Marriott in Washington, D.C., during the NARUC Winter meetings. If any of our members are interested in attending this seminar, NAWC will be publishing more information in NewsFlow as it becomes available. The Staff Committee on Water will also undertake, in the near future, a survey to determine what viability programs exist in states that economically regulate water, as well as the legal authority for such programs.

The Water Committee is pursuing additional water research support from NRRI. Chairman Charles H. Hughes praised the value and quality of past NRRI research efforts in the water area over the past several years, and expressed to NRRI's Director, Dr. Douglas Jones, that the growing water issue agenda adopted by the committee suggests that additional research would be needed.

The NARUC Water Committee and Subcommittee on Public Information, in cooperation with the U.S.E.P.A., has produced a brochure that discusses why the cost of drinking water is rising. The brochure will be available to commissions for distribution to ratepayers after the first of the year.

Dr. John D. Graham, Director of Harvard Center for Risk Analysis, addressed regulators during a general ses-



sion at NARUC's Annual Conference on the subject of "Making Sense of Risk." Dr. Graham reflected on the degree of protection EPA is seeking with drinking water standards, as compared to the amount of cost and risk that are associated with other environmental and health risks. He pointed out that the public's perception that life is becoming more risky is simply not well grounded in facts. Dr. Graham went on to say that since 1950, life expectancy at birth has increased from 65 to 72 years for males and from 75 to 79 for females. He also pointed out that the public's perception of the overall quality of the environment is worse today that it was five or even 20 years ago. However, the best available evidence suggests that the quality of air, water and food has improved steadily since 1970. Regardless, the public's understanding of relative risk is far from perfect and he concluded that if we are to make further strides against premature death and impaired health status, it is critical that citizens and policy makers focus their limited attention span and scarce resources on the big risks.

The NARUC Water Committee also sponsored a panel on the reauthorization efforts of the Safe Drinking Water Act. Panelists included: Jim Groff, NAWC's Executive Director; Diane Kiesling, Commissioner, Florida Public Service Commission; Diane VanDe Hei, Executive Director, Association of Metropolitan Water Agencies, and Peter Shanaghan, Small Systems Coordinator, U.S.E.P.A. The panel was moderated by Water Committee Vice Chairman David Williams. (A copy of Commissioner Kiesling's and Jim Groff's articles can be found beginning on page 28 and 31, respectively.)

Discussions by this panel were also focused on risk assessment considerations debated during the Safe Drinking Water Act reauthorization. EPA's representative, Peter Shanaghan, took the opportunity to express his opinion that the reauthorization seemed to be entirely too focused on cost-benefit issues. Observers, however, predict that the debate over acceptable risk levels and the cost of protection will continue to be an important factor in future SDWA deliberations.

In response to questions and concerns from regulators regarding the inability of small systems to meet SDWA standards and monitoring requirements, Mr. Shanaghan offered that waivers were available through state primary agencies for small systems. Commissioner Kiesling pointed out that in her state waivers were not readily available and, in fact, the primary agency was not granting them due to the possible liability associated with such a decision.

REGULATORY HIGHLIGHTS

NARUC Officers Elected at 106th Annual Conference

The National Association of Regulatory Utility Commissioners (NARUC) elected its officers during its annual convention in Reno, Nevada, in mid-November.

Montana Public Service Commission Chairman Bob Anderson was elected unanimously as the 104th President of NARUC. He succeeds Commissioner Keith Bissell of the Tennessee Public Service Commission. He was elected to the commission in 1990, for a four year term, and was recently elected to another four year term. Prior to joining the commission, he was a consulting engineer. Commissioner Anderson has also been the President of the Western Conference of Public Service Commissioners. He is a member of NARUC's Committee on Energy Conservation.

Elected to the office of First Vice President was Commissioner Edward Salmon, a commissioner with the New Jersey Board of Public Utilities. Commissioner Salmon is a member of the NARUC Committee on Communications. He was appointed to the New Jersey BRC by Governor Florio in July, 1991, for a term that runs until March 1997. Before his appointment to the commission, he held elected office for more than twenty years, having been elected twice to the New Jersey General Assembly and serving as the chairman of the Assembly's Economic Growth Committee. He has also served as a freeholder, mayor and municipal commissioner in charge of public works. Commissioner Salmon has also spent 27 years as an educator where he held the positions of teacher, administrator and coach in three sports.

Commissioner Bruce Ellsworth, with the New Hampshire Public Utilities Commission, was elected to the office of Second Vice President of the Association. He was first appointed as a commissioner in 1986 by then Governor John Sununu. He was appointed to another six year term in 1986 by Governor Judd Gregg. Commissioner Ellsworth first joined the commission as a Gas Safety Engineer in 1972. He is an active member of NARUC and a member of the Association's Executive and Gas Committees.

NARUC Awards Utility Companies for Excellence in Education Through Community Partnerships

NARUC established the Excellence in Education Awards program three years ago to provide national recognition to exemplary utility/education partnerships that showed significant progress in achieving the original six National Education Goals. This past year, with the passage of the Goals 2000: Educate America Act, NARUC expanded the focus to recognize those partnerships that target significant results for school reform and system change in schools.

NARUC encourages local utilities to

support these efforts through establishing education partnerships in their communities which will effect systemic change in America's education system. One of the most important factors in developing these partnerships is to create a sense of ownership and collaborative spirit by involving utility employees, teachers, administrators, parents, students and other community members. The awards program is administered and coordinated by the National Association of Partners in Education, Inc., in Alexandria, Virginia.

Commissioner Keith Bissell, during the National Association of Regulatory Commissioners Annual Conference, presented the Thomas P. Harwood, Jr., Excellence in Education Award to the Florida Power Corporation-for their partnership with the Pinnelas County School District. The utility had a long-term commitment to the school district to address five of the eight National Education Goals: readiness for school; high school completion; student achievement; teacher education, and parental involvement. Through creative, results oriented programming, the partnership has helped achieve the following milestones:

- 70 Pinellas public schools have a Doorways Program that provides college scholarships, tutoring, mentoring, health and support services for at-risk children;
- 380 children have received the commitment of full-tuition college scholarships;
- 130 schools have received training in Total Quality Schooling;
- 800 students participate in tutoring and mentoring activities;
- the school district has revised its technical education curriculum, and
- school dropouts have decreased from 12 percent to 4 percent during the past five years.

The selection of the Thomas P. Harwood, Jr., Excellence in Education award was made by a panel of judges, with representation from NARUC, Florida Power & Light Company, (last year's award recipient) Fairfax County Public Schools, NYNEX and Baltimore City Schools.

NRRI Reaches Funding Milestone

The National Regulatory Research Institute (NRRI) reached a funding milestone late this summer when the Georgia and Nebraska Public Service Commissions agreed to begin funding the NRRI. With the addition of those two commissions, every state public service commission in the nation has agreed to fund the NRRI.

State-provided funding of the NRRI was begun in 1982 after the NARUC at its 93rd Annual Meeting in 1981 voted to approve a funding formula designed to allow the NARUC member states to fund NARUC's own research arm. For the early years of NRRI existence, the U.S. Department of Energy provided NRRI's financial support. Since 1982, the number of state commissions funding the NRRI has grown from one which had agreed to fund by the end of FY 1982, to twenty-two in 1983, and to fifty-one, (including the District of Columbia) at present.

New Commissioner Appointed to Florida PSC

Commissioner Joe Garcia was appointed by Governor Lawton Chiles to complete former Florida Public Service Commission Luis J. Jauredo's term ending in January 1998, and took office August 19, 1994.

Prior to his appointment to the PSC, he served as Executive Director of the Cuban Exodus Relief Fund, a project of the Cuban American National Foundation, since 1988. The organization is responsible for initiating and developing the first private sector refugee resettlement program in U.S. history.

Before joining the foundation, Commissioner Garcia was the Assistant Director for the Salvadoran American Foundation, where he coordinated fundraising efforts for humanitarian relief campaigns.

Commissioner Garcia received a Bachelor of Arts degree in Politics and Public Affairs, as well as a law degree from the University of Miami.

Indianapolis Water Customers To Get Refund

The Indiana Utility Regulatory Commission ordered a \$325,794 refund to customers of the Indianapolis Water Co. at the request of the utility. The refund, which will result in customers receiving a one-time credit of about \$1.46 per meter on their bills, was unanimously approved by the commission.

(continued on next page)

Regulatory Relations Report, continued

The utility sought the refund to prevent double recovery of certain taxes as a result of a policy change undertaken by IWC. The policy change involved taxes placed on developers that install new lines and equipment which are eventually taken over by the utility. Under IWC's previous policy, the utility paid those taxes and recouped that money through rates.

Because the policy took effect in 1993, IWC sought the refund to alleviate any concern regarding double recovery of the taxes. The refund amount includes an interest rate of six percent from the date of collection until the date the refunds will be made.

Massachusetts Investigating Incentive Regulation

The Massachusetts Department of Public Utilities is conducting an investigation into the potential impacts of replacing traditional cost-of-service regulation with performance-based incentive alternatives.

Utilities and others have been asked to provide recommendations on performance-based incentives which will promote the following objectives:

- · control costs of service;
- · increase operating efficiencies;
- reduce regulatory burdens;
- · ensure innovation, and
- · strengthen utilities' financial integrity.

Uniform Rate Structure

The Florida Public Service Commission has allowed Southern States Utilities, Inc. to implement statewide uniform rates for water services, finding the averaged rate structure superior to stand-alone charges for individual service districts. The commission also rejected alternative rate structures including: uniform rates with subsidy cap; stand-alone rates adjusted by a uniform company-wide amount; uniform rates excluding return on investment; stand alone rates with residential rate cap, and county-wide rates.

The commission found that while the uniform rates involved the greatest level of subsidies between service districts, the rates structure produced charges that are affordable for all of the utility's ratepayers, even those at the poverty level. It also added that spreading costs among all ratepayers was an important factor given the widespread need in the water industry to replace aging infrastructure while at the same time upgrading treatment facilities to meet increasingly stringent environmental standards. Furthermore, the commission said that statistical analyses performed by its staff showed no correlation between significant cost factors and revenues that might support individual system rate adjustments. (Docket No. 940391-El, Order No. PSC-94-1106-FOF-El, Sept. 7, 1994.)

Strategic Planning

The New York commission has directed all large water utilities in the state (those with annual revenues in excess of \$1 million) to file long-range strategic plans on a yearly basis. It found that formal planning requirements were necessary to ensure that the utilities and ratepayers are adequately prepared to finance construction to meet Safe Drinking Water Act and Surface Water Treatment rules as well as other corrective actions to an aging infrastructure necessary to maintain high quality service. (Case No. 94-W-0066, Aug. 31, 1994.)

Gain on Sale of Property

Ratepayers and shareholders of California Water Service will split the gain earned by the utility on the sale of 26 properties during the 1980s. The California commission has ruled that the customer portion of the \$881,125 gain will be used to offset plant outlays for the next five years. It found that the water utility had incorrectly allocated the entire proceeds to shareholders and directed the application of interest to the gain account from the date of the sale of each parcel. While stressing that the sharing policy it had upheld in the order applied only to water utilities, which commonly hold significant amounts of undepreciable property, the commission noted that such a formula would also work to encourage utilities to seek the highest sales price possible to depreciable property. (A92-11-001 et. al. Sept. 1, 1994.)

Utility Procurement and Affirmative Action

The California commission has issued a series of policy determinations concerning its affirmative action procurement program for the state's utilities. While declining to increase the established goals of 15% for minority and 5% for women owned businesses, the commission ruled that public agencies working under the same state program had achieved a 30% total in awards to qualified firms. It urged the utilities to "rethink their reluctance" to voluntarily increase compliance. Nevertheless, the commission warned the utilities that any technical or economic assistance offered as part of outreach activities should be administered on a voluntary and "race-neutral" basis to avoid attacks on constitutional grounds. (Decision 94-08-027, R. 93-09-026, Aug. 3, 1994.)

New York Citizens' Utility Board

A New York appeals court has overturned an executive order by Governor Mario Cuomo directing the state commission to certify a single Citizens' Utility Board (CUB) to represent the interests of residential utility customers throughout the state. The New York Supreme Court, Appellate Division, 3rd Department found that the governor violated the principle of separation of powers by exceeding the legislature's policy on ratepayer representation in utility proceedings. According to the court, state law charges the commission, the state Consumer Protection Board and the state Attorney General to protect consumers in such utility commission cases. (No. 760499, July 14, 1994.)

PSC Approves Water Planning Agreement

The Nevada Public Service Commission approved a settlement agreement involving Sierra Pacific Power Company's application for approval of its 1995-2015 Water Resource Plan. The decision will allow Sierra to spend between \$4.9 million and \$5.3 million on water conservation and water resource management activities over the next four years, depending on drought conditions. The agreement also delays action on several issues relating to a proposal to drill bedrock wells, with hearings on these issues expected in late January 1995.

The agreement includes a plan to pay for installing water meters in homes currently without meters; under state law no meter retrofit customer would be involuntarily billed at the metered rate until 90 percent of the system is metered. **Recent Regulatory Decisions**

by Stephen B. Genzer and Mark L. Mucci LeBouef, Lamb, Greene & MacRae, L.L.P.

Pennsylvania Court Rules De Facto Utilities May Not Charge Rates

In a decision issued August 19, 1994, the Commonwealth Court of Pennsylvania ruled that the Pennsylvania Public Utility Commission (PUC) may not approve rates for a de facto public utility, only for utilities which comply with the statutory requirement for a certificate of public convenience and necessity. In Popowsky v. Pennsylvania PUC, Case No. 2151 C.D. 1993 (August 19, 1994), the Pennsylvania Office of the Consumer Advocate (OCA) had challenged the legality of rates charged by Public Service Water Company (Public Service) to 610 customers in an area of Pike County known as The Escape. Public Service had commenced water service on July 1, 1992, but had not filed for a certificate of public convenience or an initial tariff until August 1, 1991. The OCA filed an intervention in that proceeding, and raised the issue of the legality of rates then being charged by Public Service. When Public Service subsequently attempted to terminate service to 22 customers for non-payment, the issue of the legality of such terminations was included in the proceeding. The matter was considered along with similar proceedings for a related sewer company, with the same result.

The decisions of the PUC and the appellate court both addressed the issue of whether, as a defacto utility, Public Service could charge for service, and terminate service for non-payment of bills. On October 13, 1992, the PUC issued an opinion stating that a de facto utility could continue to charge rates in effect during the pendency of an application for an initial tariff, and could terminate customers for non-payment.

The appellate court considered first the OCA's contention that Public Service was operating illegally. The PUC contended that Public Service's operations were not illegal, but that as a de facto utility it was subject to PUC regulation. The appellate court disagreed, concluding that the language of Pennsylvania's public utility statutes required a utility to hold a certificate of public convenience and necessity before rendering service. Since under the law a utility could only charge its tariff rate, and Public Service did not have a tariff, the rates which it was attempting to charge were not lawful. Thus, the PUC could not require a customer to pay bills due under the invalid tariffs.

Finally, the court acknowledged the difficulties inherent in its ruling. In determining that the PUC could not authorize tariff charges during the pendency of an application for a certificate of public convenience and necessity, the court recognized that the PUC had an interest in ensuring that service was rendered to customers during the application process. However, the court nevertheless concluded that this was a gap in the statutory scheme which could only be remedied by the legislature.

Approval of Single-Tariff Rates Upheld by Illinois Appellate Court

The Appellate Court of Illinois has affirmed a decision of the Illinois Commerce Commission (Commission) approving single-tariff pricing for Illinois-American Water Company, Monsanto Company, et al. v. Illinois Commerce Commission, Appellate Court No. 5-93-0213 (May 16, 1994). The Court concluded that the Commission had the authority to conclude that singletariff pricing was appropriate, and that such pricing was not unfair to customers. The Commission had approved single-tariff rates for the company's Southern Division, consisting of its Alton, Cairo and Interurban districts. The Commission had concluded that the single tariff both provided benefits to all of the company's customers in those districts, through rates stability, and was consistent with proper cost-of-service principles.

The Appellate Court noted that, under the Illinois public utility law, only "unreasonable" differentiation in rates between customer classes was prohibited. Thus, the (continued on next page)

Recent Regulatory Decisions, continued

Court concluded that the Commission could properly conclude that the single tariff pricing was appropriate, due to the lack of a material difference in the cost of service, and due to a recognition of the benefits of broader-based tariff rates.

Illinois Commerce Commission Authorizes Post-In Service AFUDC and Deferred Depreciation

In a decision dated August 24, 1994, the Illinois Commerce Commission (Commission) has authorized Indiana-American Water Company to continue the capitaliration of the Allowance for Funds Used During Construction (AFUDC), and to defer the accrual of depreciation, for two construction projects in the company's Kokomo and Seymour districts. Petition of Indiana-American Water Company, Case No. 39924 (August 24, 1994). The company had requested that the Commission authorize the continued capitalization of AFUDC for treatment plant improvements, and improvements to a pump station, pending the inclusion of such projects in the company's rates as part of rate base. The company had provided testimony that the capital expense associated with the two projects was very significant to a utility the size of the company. The relief requested by the company represented approximately 15% of the company's pretax earnings level. The company represented to the commission that it would be filing a full rate proceeding in the near future.

The Commission approved a settlement implementing the company's proposal. The Commission found that the earnings erosion which would result from denial of the company's request would be significant. The Commission also found that the impact on individual customers would be small. The Commission concluded that the accounting treatment requested by the company would benefit both the company and its customers, by improving the company's ability to obtain or attract financing at favorable terms.

California PUC Confirms Decision Limiting Rate Base Inclusion of Property to Original Cost

In a decision issued August 3, 1994, the California Public Utilities Commission (PUC) denied a request for a rehearing of its determination that California Water Service Company could only include the original acquisition cost of land purchased in 1963, but only recently placed into service, in the company's rate base. Re California Water Service Company, Application No. 91-09-016 et seq., Decision No. 94-08-31 (August 3, 1994). The company had not included the land, which was used as a parking lot, in a request for rate base treatment until 1990, when the company first dedicated the land to public service. The company had not previously received any regulatory treatment of the land as plant held for future use. The company had nevertheless requested that, in addition to original cost, carrying charges incurred since the original acquisition in 1963 be included in the calculation of the rate base value of the land.

The PUC noted that the treatment which the company had requested would give the company more relief than if the land had been treated as plant held for future use. The PUC also criticized the company for delaying its request for rate base treatment of the value of the land until after the PUC had already approved the cost of constructing the parking lot on the property for inclusion in rate base. The PUC expressed the view that it should have been apprised of the full cost of the parking lot up front, instead of being informed of an additional cost only after issuing its approval.

The PUC reiterated its policy that only actual purchase price, and not fair market value at the time the land is placed into service, could be placed into rate base. Among the reasons cited by the PUC was that such treatment would bypass the prudency review which would be engaged in by the PUC, when acquired plant would be included in an account for plant held for future use. The PUC noted its skepticism regarding the cost-effectiveness of utility acquisitions of property far in advance of the proposed use of property.

The PUC concluded that, consistent with its policy as expressed in prior cases, only the original cost and not the appreciated value of the land could be used for the inclusion of the land in rate base. It rejected any arguments made by the company on equitable grounds, on the basis that the company had chosen to delay requesting rate base treatment for the land's value. The PUC stated that, under its requirement that "original cost" be determined at the time land is placed into service, that such original cost would not include simple appreciation in value during the time the land was held by the utility.

Illinois Commission Approves Accelerated Accounting Treatment for Facilities Retired as a Result of Safe Drinking Water Standards

In a decision dated July 7, 1994, the Illinois Commerce Commission (Commission), as part of its approval of a purchased water adjustment, an accounting treatment for Eldorado Water Company for plant which Eldorado proposed to retire, instead of upgrading to meet new water quality standards. Illinois Commerce Commission v. Eldorado Water Company, Case No. 93-0219 (July 7, 1994). Eldorado proposed to retire a reservoir, treatment plant and surrounding land, contending that it would be prohibitively expensive to upgrade the treatment plant in order to utilize water from the reservoir. While the Commission Staff did not disagree with the proposal to retire the plant, and for Eldorado to instead purchase additional water from another source, there was a disagreement as to the proper accounting treatment.

Eldorado requested that the cost of the reservoir and land, and the value of the undepreciated plant, be retained in rate base, that the ongoing costs to maintain the reservoir be included as an operating expense, and that the remaining plant be amortized over a 10 year period. The Commission Staff proposed to exclude the plant from rate base, and have the loss incurred by the company recovered through an amortization.

The Commission concluded that, as the plant was no longer in service, it would not include the land or the undepreciated plant in rate base. However, the Commission did agree with the 10 year amortized recovery proposed by Eldorado. The Commission also agreed with Eldorado that the utility plant in question would have no salvage value, and thus approved full recovery of the remaining value.

Thanks to S. B. Givens of American Water Works Service Company, Louise A. Knight of Malatesta, Hawke & McKeon, and Frank J. Miller of Huber, Lawrence & Abell, for sending in items of interest.

Federal Agency Notes

by Mark Planning

Looking Back at 1994

As 1994 closed, legislators, regulators and local elected officials were examining with greater interest than ever the several hundred examples of where private companies are operating and maintaining public-owned water supply and treatment facilities, or where local officials have sold their facilities to private partners. It is not difficult to understand why.

Strict environmental regulations resulting from federal water laws, combined with cutbacks in or the total lack of federal assistance to comply with these mandates, is driving municipal interest in public-private partnerships. In August, Victor Ashe, President of the U.S. Conference of Mayors, said the Safe Drinking Water Act (SDWA), the Clean Water Act and the Resource Conservation and Recovery Act (RCRA) cost local governments more money than any other federal statutes. In fiscal year 1993, the Clean Water Act costs cities with populations over 30,000 \$3.6 billion. The SDWA cost these cities \$600 million.

In 1986, the last year the SDWA was reauthorized, Congress specifically required EPA to set standards for 83 contaminants but included no provision in the Act to allow EPA to refrain from regulating the contaminants if they are not found in drinking water supplies. The result is that EPA expects public water sys-



tems to pay about \$1.4 billion per year through 1995 to comply with the rules for the 83 contaminants that are currently regulated. Industry estimates, by comparision, run as high as \$4 billion per year. As many as 112 contaminants could be regulated by next year.

In 1986, Congress also required EPA to set standards for a minimum 25 additional contaminants every three years starting in 1991. This mandate, if retained by Congress during next 1995's reauthorization, will require public water systems to test, monitor and treat their water for over 200 contaminants by the year 2000. In addition to promulgating 25 new standards every three years, EPA is prohibited from setting standards based on public health risk reduction benefits. This restriction has resulted in expensive regulations that too often provide little or no health benefits to the public.

Because many of the standards have only recently gone into effect, most communities are just beginning the initial monitoring to determine whether certain contaminants are present in their water. Two major regulations, which regulate 38 contaminants, took effect during the past two years: the Lead and Copper Rule and the Phase II Rule. The Phase V Rule, also promulgated recently, established regulations for 23 contaminants. But what about the standards for contaminants currently listed for regulation? These contaminants, which include disinfection by-products, radionuclides, arsenic and sulfate are among the most expensive to regulate. Requirements to meet the proposed radionuclides rule, the proposed disinfection by-products rule and the anticipated arsenic rule will require local officials to spend billions over the next few years. In fact, compliance with these three rules alone is estimated to cost more than double the EPA estimate of \$1.4 billion to meet standards already in place.

Although EPA remains severely underfunded, its newly centralized enforcement structure is taking more enforcement actions against SDWA and Clean Water violators. According to the FY 1993 Enforcement and Compliance Assurance, the number of civil cases re-(continued on next page)

Federal Agency Notes, continued

ferred by EPA to the Department of Justice for violations of water laws increased during FY 1993. EPA referred 338 civil judicial cases, down 6 percent from FY 1992, but program-specific increases were recorded for Safe Drinking Water Act and Clean Water Act programs, which, when combined, rose 9 percent from FY 92. Enforcement actions drive compliance-or they should-but as new regulations take effect, compliance for many systems is difficult, if not impossible to achieve, because of insufficient financial resources, technical expertise, or both. As new regulations are implemented the number of violations will continue to rise for many small systems.

Another reason behind the growing interest in public-private partnerships is the infrastructure crisis, or the capital requirements cities face to restore their water infrastructure. In July, the National League of Cities announced that infrastructure needs are the second most adverse factor affecting local budgets this past year, just behind the rising costs of health care and ranking even with the costs of complying with unfunded federal and state mandates. For small cities, the single most unfavorable factor causing fiscal problems comes from infrastructure and capital needs, much more than crime, health care or mandates.

Distribution lines and related infra-

structure have been allowed to decay because repairs and maintenance are frequently the first thing to go when municipal budgets get tight. Maintenance can always be put off, or so it seems, until the next year. But it is now evident to local officials and the trade groups that represent their interests in Washington, that they must start looking at public-private partnerships and other innovative solutions to pay for the costs of repairing and replacing failing infrastructure.

Last year the Water Environment Federation (WEF) surveyed publicly-owned treatment works (POTWs) of all sizes about their equipment (e.g., pumps), service (e.g., mechanical and process designs) and treatment chemical (e.g., disinfectants) needs for 1994 and 1995. Total needs for ongoing treatment efforts were found to be about \$1.9 billion for 1994 and \$2 billion for 1995. About half of this amount is for equipment replacement or upgrades, with the remainder for services and chemicals. These needs do not represent new facility construction. They represent only one part of the operations and maintenance funding needs for the 15,700 POTWs currently operating throughout the country. The survey estimates that demand from new facilities would increase the treatment product needs by 10 to 15 percent annually.

A similar survey released recently by the Association of Metropolitan Sewerage Agencies (AMSA) estimates capital needs

for its 100 members of \$32.4 billion for the period 1993 to 1998, AMSA states that rehabilitation costs reflect a growing emphasis on the repair and replacement of existing treatment systems, many of which were built in the early years of the Clean Water Act. According to the report, federal assistance is expected to finance only \$2.3 billion, or 7.9 percent of the total \$32 billion. Currently, local governments, through rates and taxes, carry 84 percent or more of the capital burden, in addition to 100 percent of the sharply increasing operation, maintenance and replacement costs. Projected funding includes State Revolving Loans, which are ultimately repaid with local funds, increasing the real burden to local governments to over 90 percent of the total wastewater capital costs. AMSA estimates new construction needs for small and medium municipalities, which are not represented by the Association, at over \$30 billion.

The AMSA report states, "the message is clear . . . the call is for a bold, new direction for our future clean water efforts." Testifying before Congress in May, WEF urged Congress to remove statutory and regulatory barriers to encourage public/ private partnerships.

For the first time in several years, policymakers, regulators and elected officials are looking to public-private partnerships for assistance with their compliance needs and capital requirements. 1994 saw lots of activity. 1995 may see even more.

Quorum Call, continued from page 53

rization legislation in the House will be in a significantly stronger position to champion these issues. Bliley will either be chairing the Subcommittee with primary jurisdiction over environmental legislation, or maybe even chairing the Full Committee on Energy and Commerce, which has final review of environmental legislation before it goes to the floor of the House.

Though Republicans will run the show, they all don't agree. We can expect sharp divisions within the Republican caucus between the deficit hawks and the supplysiders when it comes to fiscal year budgeting and taxation. That is, between those who feel we must get the deficit down before all else and those who believe that we must cut taxes first in order to spur business so we can grow out of the deficit in the long run.

Similarly, we can expect a difference of opinion from Republicans when it comes to environmental legislation. There will be those who want to rewrite environmental law in order to assure that resources are focused on areas which can affect the greatest public safety, and those who will advocate turning more of the responsibility over to states and getting the federal government out of such minutia altogether.

How President Clinton responds to the New Majority remains to be seen. We can expect to see the as yet unused veto pen from the President. However, it is in both the President's and Congress's best interest to work together as much as possible. Like it or not, they both need each other if they want to get anything done. However, Presidential politics is already rearing its head, and as the 1996 Presidential election moves into high gear later in 1995, you will see more and more posturing and less and less co-operation.

This means, if nothing else, that the coming months should be very interesting. The 104th Congress could offer great opportunities for the investor-owned water industry, but at the same time the rules are changing and we must be ready to adapt to a changed and changing landscape.

^{*} As of this writing, some results from races still not confirmed.

Quorum Call

by Louis Jenny

The 1994 Congressional Elections

What Happened

Earthquake, Hurricane, Tsunami, Seachange. These terms have all been used to describe the 1994 Congressional Elections. And they might be inadequate metaphors to truly convey what happened to Washington that day. On Tuesday, November 8, the American people (not some mindless geological force) returned the power of the entire Congress to the Republicans after forty years. Many had guessed that the Republicans would take over the U.S. Senate, but few guessed the House would go G.O.P. However, when the 104th Congress convenes in January of next year, in fact Republicans will run both the House and Senate-though by slim margins as compared to those enjoyed by the Democrats in recent years. The Senate will have 53 Republicans and 47 Democrats, and the House will have 231 Republicans, 203 Democrats and one Independent.*

The enormity of this can't be overstated. It has been forty years since Republicans controlled the House. The Senate has been in Democratic hands for those same forty years except six from 1981 to 1987. What started as an anti-incumbent year clearly turned into an anti-Democratic year-a year in which we saw for the first time since 1862 a sitting Speaker of the House fail to win his re-election bid. Members with huge amounts of seniority, power and money (Foley [D-WA], Rostenkowski [D-IL], Brooks [D-TX]) went down in this odd year. Younger members with bright futures also failed (Sasser [D-TN], Synar [D-OK]). Exactly why the electorate turned so savagely against Democrats is a subject of vastly different interpretations. However, it was not just one factor which caused this Democratic meltdown, but rather many different forces, some long festering, some shortterm, which coalesced in 1994. These in-



clude: the convention that a President's party loses Congressional seats in non-Presidential election years; some expected Republican gains brought about by redistricting which didn't fully take affect in 1992 due to Clinton's win; Clinton's own unpopularity; general anti-incumbency; the Healthcare Reform Initiative debacle which made Congress look so wasteful and ineffectual; in the Senate, a coincidence that many more Democrats than Republicans were up for election (21 Democrats, 13 Republicans); and, similarly, the fact that more Democrats than Republicans chose to retire or seek other office bringing "open" seats into play (34 Democrats, 20 Republicans). These and dozens of local and regional factors led to the Republicans sweep which saw not one incumbent Republican lose his or her bid for re-election.

What It Means

The 104th Congress convening in January of 1995 will be younger, and more fiscally and socially conservative, yet ironically with less reverence for the traditions of Congress, particularly in the House. That Congress–again particularly in the House–will also feel that it has a mandate to change not only the way Congress does business, but will also feel free to examine and reconsider many federal programs and statutes long considered sacrosanct.

For the first time since 1953, a Repub-

lican will be running every Committee and Subcommittee in Congress. On the floors of both chambers of Congress, the Republicans will be setting the agenda, controlling the debate, and calling the shots. Newt Gingrich (R-GA) will be the new Speaker of the House and that promises not only very different policies but also a very different style from that body than we are used to. Gingrich will undoubtedly be more confrontational, outspoken, and partisan than any Speaker in recent times. As a true economic and cultural conservative, we can expect bills and initiatives moving through the House which will challenge the Clinton Administration to its core. Bob Dole (R-KS) will be the Majority Leader in the Senate, and though the agenda of that chamber will be the Republican's to set, the style will likely not change as radically as we can expect in the House. Senator Dole was briefly majority leader in the 1980s, and has a much more traditional style than Gingrich.

The Tax Committees will be chaired by Senator Packwood (R-WA) in the Senate, and Congressman Bill Archer (R-TX) in the House. From Packwood, we expect little departure from what we have seen in recent years. However, the House has primary jurisdiction over tax legislation, and soon-to-be Chairman Archer has let it be known that nothing is sacred. This extends into the basics of our tax code. Archer has mentioned that his Committee may consider doing away with income tax as we know it, replacing it with a progressive consumption tax. Though nothing this grandiose will happen in the first 100 days, it does indicate that potentially everything is on the block.

On environmental issues: Congressman Bliley, who co-sponsored the NAWC endorsed Safe Drinking Water Reautho-(continued on page 52)

Tax Adviser

Planning for Non-Taxable Contributions

by W. Frank Morgan Price Waterhouse LLP, Stamford, Connecticut

Over the past twelve months, the Internal Revenue Service (the "IRS") has continued to rule in favor of taxpayers with respect to contributions based upon the "public benefit" exceptions outlined in IRS Notice 87-82. The published rulings summarized below provide examples of the non-taxability of contributions to capital under IRC Section 118 (a) as opposed to the taxable treatment imposed by the Tax Reform Act of 1986 (the "Act"). While the Act expressly provided that a contribution in aid of construction ("CIAC") made by a customer or a potential customer is taxable, the IRS has ruled in specific situations that certain payments are contributions to capital and excluded from gross income. A review of these rulings may serve as examples in structuring the receipt of future contributions.

Background

The legislative history to the Act indicates that the receipt of CIAC by utilities is a prepayment for future services to customers. Since passage of the Act, the IRS has ruled on the taxability of contributions by whether such prepayments result in an increase in services and/or a benefit to the person receiving the prepayments. As guidance, the IRS and taxpayers have looked to the Committee Reports for the Act which state:

"A utility is considered as having received property to encourage the provision of services if the receipt of the property is a prerequisite to the provision of the services, if the receipt of the property results in the provision of services earlier than would have been the case had the property not been received, or if the receipt of the property otherwise causes the transferer to be favored in any way."

However, where the contribution benefits the public as a whole, IRS Notice 87-82 exempts such receipts from taxation. The Committee Reports state that "it is clearly shown that the benefit of the public as a whole was the primary motivating factor in the transfers." It is this public benefit exception that utilities should consider in avoiding the taxation of contributions.

1994 Private Letter Rulings ("PLR")

In 1994, the IRS has continued to issue rulings where the public benefit exception has been cited. The first PLR (9401035) issue in early 1994 on the issue of CIAC ruled that state grants to an electric cooperative for the design and construction of a power transmission intertie between various towns were nontaxable. The IRS ruled the grant resembles the public benefit motivation outlined in the most prominent case on the subject, Brown Shoe Co., Inc. The IRS concluded that the grant was provided to enhance the local economy and the reliability of the whole system. The IRS also concluded the grant satisfied the criteria for a non-shareholder contribution to capital as described in Chicago, Burlington & Ouincy R. Co.

The second PLR, 9410018 (see the Tax Advisor column in the Fall 1994 issue of WATER for a more extensive analysis), affirmed that a utility may receive a nontaxable transfer of utility property where the transfer was intended to benefit the public at-large. In this ruling, a public water supply system was transferred, not for the direct benefit of any particular customers, but to improve the fire protection system for the town. While the residents could have decided to connect to the public water system, there was no assurance of any expansion in the number of water customers.

A similar conclusion was reached in PLR 9411007. In that ruling, payments by mobile home park owners to a natural gas utility to convert a master meter customer to an individual meter system were not for the provision and/or expansion of services, but were to improve the safety and the operation of the natural gas distribution facilities pursuant to the state's public policy. Compliance with the state's safety guidelines was also cited as a benefit to the surrounding community.

Another example of the public good exception was in PLR 9427008. The IRS ruled the purchase and upgrade of a group of cities' street light systems was a nontaxable CIAC. The IRS found that the contributions would benefit the public in general through the increased safety provided by better lighting, and would not directly benefit any particular customer. Any additional lighting would be treated as the provision of a new service, and therefore would be taxable as CIAC. This ruling also addressed the cities' contributions in the transaction and concluded the payments were non-shareholder contributions.

And finally, PLRs 9448005 and 9448006 indicated that the county's contributions to a utility for relocation of existing power lines would clearly benefit the public as a whole. The IRS ruled that the improvements would not be made for the direct benefit of any particular customers of the utility in their capacity as customers. Furthermore, the relocation was undertaken for either reason of community aesthetics, or in the interest of public safety.

As an alternative to the public good exception to avoid taxation, PLR 9420012 provides another example. In this ruling, a utility and an unrelated partnership agreed to develop a waste to energy facility. Under the agreement, the partnership upgraded and refurbished the generating facility. As the transaction permitted the sale of power by a non-customer, the IRS held the upgrades were not taxable CIACs, following the guidelines set forth in IRS Notice 88-129 concerning certain payments or transfers of property to a regulated public utility by a qualifying facility.

In the final example (PLR 9443019) for 1994, the IRS ruled that a regulated public utility did not receive taxable CIAC when the line owners transferred replacement or modified circuit-breakers in which the utility had an ownership interest. The IRS ruled that the upgrade and reinforcement of the transmission system were necessary only for the acceptance and transmission of electricity. As a result, there was no increase in the net capacity of the co-generated facility, and, therefore, the receipt of the facilities would not be treated as a taxable CIAC. However, where the utility received payments from the line owners to replace or modify the circuit breakers, income was recognized from the construction in the same manner as any other taxpayer constructing similar property under contract (IRC Section 460).

Conclusion

The above published rulings were decided on their specific facts and circumstances. While their individual circumstances are different, they represent examples of what should be considered in structuring the receipt of contributions to avoid taxation of such amounts. Structuring a transaction to benefit the overall public good while not increasing the overall provision of services, should be reviewed and evaluated as contributions are received.

Pipeline to Small Companies

NAWC and Donald R. Frey & Company Form Computer Software Alliance

The NAWC recently formed an alliance with Donald R. Frey & Co., Inc. As a part of this pact, Frey and Company will provide accounting and utility billing software to NAWC members at exclusive prices.

The systems offered are designed for investor owned water companies. All operate on generic Open Systems like UNIX (TM), MSDOS (TM) and local area networks. They feature real time, interactive processing. The accounting accepts the NARUC chart-of-accounts.

The following was prepared to provide the membership with a profile of the company and its extensive background in specialized application software.

Twenty years ago, very little packaged software was available. What was available by Donald R. Frey Donald R. Frey & Co., Inc.

was of poor quality and expensive because writing it was very complex and laborious. Documentation was almost nil since it had to be prepared on a typewriter. Support was weak. Programs were usually written by one or two individuals. When the programmers left the project, the knowledge left with them.

Technology has changed. Alternative application software solutions are available. Their design is accomplished by professionals. More powerful computers have permitted greater program flexibility. Quality support is available. Documentation is robust. The cost of a software package has become very attractive.

In order to compare alternatives, it would be helpful to describe evolution of Frey & Company's operation over the last twenty years. Then contrast our current offering with those available in-house or from customer providers. Two important issues, Open Systems and Graphical User Interfaces, will be briefly discussed.

Since 1974, Donald R. Frey and Company has been developing and selling specialized software for utility billing and accounting applications in national and international markets. Actually, the firm sells more than programs. It offers over thirty-five years of computer experience, twenty of those serving the specialized needs for a multitude of customers.

Donald R. Frey & Co.'s staff is exposed to many operations each year via product inquiries, customer support and trade association meetings. Annual user meetings (continued on next page)

Pipeline to Small Companies, continued

are held and surveys are conducted to determine the needs of clients. This makes us a valuable resource for ideas and problem solving techniques. The staff can often provide fresh insight into problems and their solutions. Our service goes well beyond just writing programs.

In the early days of the business, software was designed and written for specific makes and models of computers. We were compelled to do this because each system had unique programming languages, operating systems, etc. Each time a new line of computers was released, a major conversion of the software was necessary. It was like "reinventing the wheel." Problems also arose if a machine was not successful. The software conversion investment might not be recovered. Generic programming languages, operating systems and machine designs were needed to make the software business practical.

A search was begun for a generic programming language. That is, one that would work in the same fashion on almost any computer. In the early 1980's a company was located that offered a truly generic programming language. One could design and write software on one computer and install it on an entirely different machine. The only requirement was a special program called a runtime. The runtime caused the software to work properly with almost any computer. Frey & Co. could now focus on developing more powerful and versatile software. The burden of conversions had been eliminated.

In 1982, a generic computer operating system was being touted by AT&T called UNIX (TM). An operating system is a large complex program that manages a computer's resources (i.e., memory, printers, storage, space, communications, etc.). The OS, as we call it, is a vital part of any modern computer system. A lot of time and training is required to master each OS. New operating systems also take many years to become fully developed and reasonably error free. AT&T designed UNIX to make it easy for its employees to work on a variety of computers. This operating system has been around since the early 1970's as an internally used system.

In this time period, microcomputers began evolving into viable systems for commercial use. Up to that point they were primarily the venue of hobbyists. Tandy Corporation introduced a microcomputer called the Tandy 6000 which offered a variant of the UNIX operating system called XENIX (TM). It also supported the generic programming language we were using. XENIX was a multi-user system that could support multiple terminals and printers. These capabilities compared favorably with minicomputers costing five times more. Soon, major vendors like NCR and Sperry began offering larger systems supporting UNIX.

In the mid-eighties, IBM announced a new personal computer using an operating system called MSDOS (TM). It became an overnight success. These systems also supported the generic programming language. Our software became available on them almost immediately. Over the next five years, these systems became more powerful and useful. Later, they were expanded with the introduction of local area networks (LAN). They were now capable of being multiuser systems.

The nineties have started the beginning of the demise of mainframe computers, as well as proprietary operating systems and languages. Most computer hardware has become a commodity product. This is the era of Open Systems.

What are Open Systems? They are a concept. They offer the buyer the flexibility to mix and match hardware, operating systems, programming languages and application software to suit their needs. Don't be misled! If the system doesn't have all of these capabilities, it isn't truly Open. Some companies are calling their systems Open. However, they are only open in the sense that they can communicate with other systems of their own brand using proprietary software and/or hardware. This is called interoperability. It is not an Open System.

Another major change is coming about. It is the way software is being designed. Years ago, software developers fought constant battles debugging software being converted from one computer to another. When that problem was eliminated, they looked for ways to improve the product's design. They also wanted to make software easier to use. Improved programming languages and more powerful machines have led to many major improvements. Today, quality applications provide popup windows that allow the user to look up information on-the-fly as they process their work. For example, if one doesn't know the account number for a customer, you can search for it based on just a few letter of their name. If the customer's account doesn't exist, you can create one while you are in the midst of processing an order for them. Press a key and the User Guide appears on the screen, turned to the correct page. Good software is now consistent in the way it operates and appears.

In the early age of computers, the expert was often the one who knew how to program the machine. That was their sole specialty. They relied on the customer for application knowledge. This was often a hit or miss method of development. Critical details of design were often not in the program because they were overlooked. As designs became more elaborate, it became clear that the computer expert needed a second discipline in order to do a good job. Today, software developers are faced with the additional requirement of providing human factor engineered user interfaces. That is, they have to design programs that are consistent in behavior and are easy to use.

Microsoft Windows and other GUI (Graphical User Interface) products are becoming more common. They have both good and bad points. These GUI's try to simplify the use of a computer by providing a consistent interface (i.e, means of communicating with the user). They make it easier to control devices like printers. They provide on-line help and allow the use of pointing devices like a mouse. These features can be useful when working with a document (e.g., word processing) or graphical (e.g., Paintbrush) application. If you are doing procedural applications like accounting, GUI's can get in your way and may even slow you down. A mouse is not a helpful tool for order entry and general accounting. The software industry has introduced so many icons (those little pictures), that one almost needs a book on icon identification. They have become overused.

Additionally, there is a lack of consistency in the implementation of many GUI standards. IBM, Apple, Microsoft and UNIX all have differing approaches. They all have good and bad features. These interfaces are also difficult to carry out and maintain. GUI standards are still evolving. They are an important part of the software process. They have raised the software developer's awareness of the importance of consistent, user friendly interfaces.

Before leaving the issue of GUI's, a word is in order about the amount of computer power needed to use them. In the days before the GUI, a 386 based PC would operate comfortably with a million bytes of memory and a forty-million byte hard disk. With the advent of a GUI systems, typical requirements now dictate a minimum of two-hundred million bytes of disk space. They also need eight-million bytes of memory to operate efficiently. Is the GUI interface worth the added cost?

Another change coming is multimedia. It's here now and is growing rapidly in the education and entertainment market. In the next few years, it will find a multitude of applications in the commercial market place. Why not have a picture of the meter location appear on the meter reader's hand held unit? Why not get the customer to authorize automatic utility bill payments from their bank accounts? Why not record customer complaint or service request calls on the computer for playback?

In view of the foregoing, it's appropriate to consider how to go about satisfying software needs now and in the future. The approach will depend, to a great extent, on one's level of expectation.

Does your firm contract with someone to write software based on the design you dictate? Does this individual have the application, programming, and user interface expertise to provide a state-of-the-art result? Is it going to be cost effective?

If your firm has a data processing staff, the impulse may be to write your own software. Be careful not to become trapped by this apparent solution. A lot of baggage comes with this approach.

The staff may be attuned only to the way the work is now done in your office. They may lack the broad industry exposure and multiple disciplines that are needed when considering different approaches. If this is the case, the resulting software may be lacking. It may not contain the hardware, software and industry improvements that might be useful to your operation.

Support is a problem routinely associated with in-house and custom program development. If you have a large staff, support may not be a major problem. If that is not the case, employee turnover or illness can create a support disaster.

Documentation of in-house systems is something that is typically done when things get slow. If you dispute this, visit a computer store. Select any quality application package and compare its documentation to yours. The comparison normally speaks for itself.

Cost is important. Commercially developed software costs about one-fifth of an in-house developed system. Don't be misled by estimates offered by an in-house staff. Their figures are usually a fraction of what it will take to do a complete job, including thorough testing and documentation.

New software contains many errors. These are largely avoided with established packaged software.

Time is an important commodity. It comes in limited quantities and there is never enough of it. Packaged solutions are usually available almost immediately. Compare this with the months or years required to develop systems. There is also the cost associated with the delay in making these improvements available.

Some situations may need a custom program or system. These may be legitimate. An example might be unusual state regulatory requirements. However, before resigning yourself to a total customer system, examine the cost of a packaged system with modifications. A rough rule of thumb is ten percent. If you can find a package that can be modified to meet your needs and the changes constitute ten percent or less of the total software code, do it. Change beyond that level tends to be so great the conflicts develop with the original design of the package.

A concluding comment needs to be made about software acquisition. Don't fall prey to the "I have a friend who knows how to program" trap. The worst decision that can be made is to contract with a part time programmer who has no application knowledge to develop software.

Out of necessity, this discussion has been brief. However, it does provide a reasonable reference point for management to begin an evaluation.

Frey & Company welcomes the opportunity to discuss your current operating environment. We also would be glad to offer suggestions on how we can serve your future needs and interests.

For more information, call Frey & Company toll free at 1/800/659-3739. Their hours are 8:00AM-5:00PM EST, Monday-Friday.

Gerald M. Hill (1941-1994)

Gerald M. Hill, director of rates for United Water Resources Management and Services Company, died on November 21 as the result of injuries sustained in an automobile accident. Hill, 53, joined General Waterworks Corporation in 1970 as senior rate analyst. He represented the company's utilities with regulatory agencies in the 14 states where they operate. Hill had recently advanced to his position at United Water, which merged with General Waterworks.

"Gary will be greatly missed both as a friend and for his contributions to the company," said Ronald Dungan, president of General Waterworks. "Gary was an energetic person with a positive attitude who was well liked by everyone."



A resident of Springfield, Pennsylvania, Hill is survived by his wife Rita, and their daughter, Jennifer. Hill graduated from Villanova University in 1964 with a B.S. in economics. He was active in the Lions Club.

Company Profile

The Story of Bridgeport Hydraulic Co.



Bridgeport's first distribution reservoir, depicted in this 1872 illustration, was actually a masonry tank

Imagine Bridgeport, Connecticut, at the turn of the 19th century. It was not yet a city, merely a borough of the neighboring town of Stratford. Horse-drawn wagons moved through its streets. The finest houses were those of the ship captains who called the community home. And the busiest "center" was the waterfront, where local farmers and merchants hawked produce and wares to the crews of sailing vessels that put into port to trade and replenish supplies.

One of the items most in demand was water, which was for sale by the cask. It was fresh water from nearby springs and lakes. No one could tell exactly how long the water had been in the casks, but, then again, no one knew of any other way to deliver it to the sailors. And then, in 1818, the Reverend Elijah Waterman had a better idea.

Rev. Waterman's property atop Bridgeport's Golden Hill contained springs of excellent water that had been used for centuries by the Pequonnock Indians who had lived in a village on the southern slope of the hill. The enterprising pastor cleaned and deepened the springs and laid hollow log pipes under the community's streets all the way to the waterfront. There the water flowed into a trough providing fresh running water to the ships's crews. Rev. Waterman had devised Bridgeport's first water delivery system.

Bridgeporter Lewis C. Segee carried forward Rev. Waterman's enterprise, and next came a group of entrepreneurs who formed The Bridgeport Golden Hill Aqueduct Company. That company purchased the Waterman-Segee pipeline in 1826, a decade before Bridgeport was incorporated as a city.

In 1845, a pre-Christmas fire demonstrated the necessity for further improvements in the city's water delivery system. The fire broke out in George Well's Oyster Saloon on Bank Street and spread rapidly from building to building in the community's main business district on the waterfront. Fire fighters tried to combat the fire with water pumped from the harbor, but the tide was low and an adequate flow could not be maintained. When the flames finally burned themselves out, 49 wooden structures had been destroyed. The business district was rebuilt along Main Street, but the "Great Fire of 1845" would not soon be forgotten.

About eight years later, the city's Common Council granted "Nathaniel Green and his assigns" the exclusive privileges of laying water pipes in the community. Green was to furnish Bridgeport with "an abundant supply of pure water for all domestic and commercial uses."

Green and his associates formed the Bridgeport Water Company and set about to fashion a water system that would live up to the Council's expectations. They built Bridgeport's first distribution reservoir, a masonry tank into which water was pumped from nearby Factory Pond. They laid water mains beneath the city's primary streets and completed Bunnell's Lower Reservoir, formed by construction of an earthen dam on the Pequonnock River.

Perhaps the young company had taken on more than it could handle, for after only two years in business its bonds went into default, and its property was taken over by the bondholders through foreclosures. It was out of business by 1855.

Under the leadership of Joseph Richardson, a new water utility proposed to pick up where the short-lived Bridge-



The legendary showman P.T. Barnum, president of BHC from 1877 to 1886, played a key role in the company's early expansion efforts.

port Water Company had left off. Established through a special act of the Connecticut General Assembly, it was incorporated as an investor-owned company in 1857, assuming the assets of Green's defunct organization. The new utility was named "the Bridgeport Hydraulic Company," subsequently shortened to "Bridgeport Hydraulic Company," or BHC.

With little fanfare, BHC went about the business of expanding the rudimentary distribution system it had inherited. Major projects were out of the question during the Civil War, so it wasn't until the 1870s that the company turned to its first program of supply system expansion. By 1876, BHC had completed its Island Brook Supply System, which more than tripled its reservoir capacity.

Meanwhile, the famous showman Phineas T. Barnum was in the wings awaiting his opportunity to influence the fortunes of the company. Yes, the same Barnum who had successfully exhibited "General Tom Thumb" and the original Siamese twins, and masterminded "The Greatest Show on Earth"--that Barnum was about to take center stage in BHC's business affairs.

P.T. Barnum was a bona fide resident of Bridgeport. His interest in the company had intensified during his one-year term as mayor of Bridgeport in 1875. The mayor felt that the water rates were too high, and in a rather badgering letter to the company's Board of Directors, he suggested that BHC sell itself to the city or else assure the city that it would put all its works in good order immediately.

Two years later, another fire dramatically underscored the city's need for an ample and reliable supply of water. Again, water supply proved inadequate to control the blaze. This time, in addition to destroying property, the fire claimed 11 lives. That same year, Barnum got his chance to "put the company's works in good order." He was elected its second president.

Phineas T. Barnum served as BHC president for nine years. Under his personal direction, the company constructed additional reservoir capacity at higher elevations. This move was calculated to correct the low-pressure problems that had plagued the city's fire fighters since the earliest days.

With the panache that marked his show business ventures, Barnum applied his energies to the public water business. Horse Tavern Reservoir and Trumbull Pond were placed in service during his tenure. And, Easton No. 1 Reservoir was constructed by the Citizens Water Company, another water utility for which Barnum was president. The 76-year old Barnum, meanwhile, returned to his first love: show business. He began immediately to prepare his circus for a tour of London.

By 1889, the once-sleepy fishing village on the Pequonnock River had become a vibrant industrial center with a population of 70,000. Factories hummed with activity, turning out clocks, corsets, sewing machines, cartridges, and boxes; passenger and freight railroads chugged in and out of the city on regular schedules. About the same time, trolley lines were being installed in Bridgeport to replace the "horse railroad," and coal and wood stoves began to give way to a newfangled idea called "cooking with gas."

In response to a rising demand for water, several small water companies were formed, each attempting to serve a segment of the Greater Bridgeport area. Little water utilities seemed to be popping up everywhere. Eventually, BHC acquired these small companies as it broadened its service area.

With Bridgeport growing by leaps and bounds, it became essential to plan ahead ... way ahead ... half a century or more! Leading this effort was a young Lehigh University graduate named Samuel P. Senior. He joined BHC in 1901, at the age of 27, as engineer and superintendent. He was destined to stay with BHC for 61 years—35 as chief executive officer.

Senior envisioned a vast expansion of the existing water storage and network and distribution system, and with the blessing of company management, he led in the planning and execution of a program that would anticipate the demands of the growing industrial area.

The new supply system would be comprised of "a large watershed with large storage reservoirs at higher elevations," and interconnected for safety. Senior personally explored and surveyed reservoir sites that were sufficiently removed from urban environs, and therefore less subject to (continued on next page)



BHC water quality control lab, 1914. Although lacking today's sophisticated technology, BHC even then supplied exceptionally high-quality water.

BHC, continued

pollution. Furthermore, the minimum size of pipe in the distribution system was set at eight-inch diameter; virtually all outmoded four- and six-inch pipe was replaced by larger pipe.

The new policy began to take shape in 1905, the year the 2.3-billion-gallon Trap Falls Reservoir was placed in service. It was the first of BHC's four great reservoirs, which are still considered the backbone of the region's water supply. Senior planned them all. He directed their construction, and they stand today as a tribute to his foresight and initiative.

By 1914, the demand for water in the rapidly growing Greater Bridgeport area had reached eight billion gallons a year. Then came the "war to end all wars." Bridgeport's arms and munitions factories were pressed to the limits of their capabilities. Local automobile, submarine, and brass companies received war contracts, too. And the city began to swell with newcomers who came to work on the war contracts. The population exploded by 60,000 between 1914 and 1916. And everyone needed water.

By the time the war ended in 1918, water demand had surged to 13 billion gallons a year. But Senior's foresight had paid off. The 3.8 billion-gallon Aspetuck-Hemlock Supply System and several small reservoirs and river diversions were brought on line during the war, averting a potential water shortage in the metropolitan area.

In 1920, Sam Senior was elected president of the company. For the next two decades, Senior led the company through periods of dramatic change—change for the nation, as well as for the water utility.

In the 1920's, BHC concentrated on its reservoir construction program. Obsolete, low-elevation reservoirs were decommissioned, and the property was sold to raise capital for expansion. Construction of the 5.8-billion-gallon Eason Lake Reservoir, which had been postponed during World War I, was finally completed in 1926. Meanwhile, the company was proceeding with the acquisition of land for the huge reservoir planned for the Saugatuck River Valley. And then came the Great Depression.

During the financial crises that swept throughout he United States and Europe,



Samuel P. Senior, president of BHC from 1920–1955.

the company held its own. In fact, Greater Bridgeport managed the hard times extremely well: Major industries remained open, and only two banks failed. Nevertheless, it was not the most opportune time to begin work on a major capital project, so construction was postponed for the duration of the depression.

By the mid-1930s, Senior had overseen the acquisition of 4,500 acres of the watershed land needed to create the company's largest reservoir, the Saugatuck. Before the decade ended, BHC had obtained the additional acreage and rightsof-way needed, and at long last began the construction of a dam on the east branch of the Saugatuck River.

During the Second World War, the Greater Bridgeport area was again in the forefront of the nation's industrialized cities, filling war contracts for fighter planes and helicopters, submarines and ammunition, valves and uniform buttons. The population of the metropolitan area had grown to about 200,000. The company was in a race against time; the 11.9-billiongallon Saugatuck Reservoir was badly needed to augment the existing water supply.

The project was mammoth! Land had to be cleared of trees and houses. A mass of 80,000 cubic yards of concrete would be used to construct the dam. The surface area alone to be occupied by the great body of water would be 870 acres. Six miles of new roads and four new bridges were to be built. A series of pipelines and tunnels would connect Saugatuck Reservoir to Aspectuck Reservoir. It was a big job, and it was handled with the expertise and efficiency that had become a mark of the company and its chief executive officer.

In January 1942, the Saugatuck Dam was completed; the reservoir was allowed to fill; and in July of that year, the new facility was placed in service. The reservoir approximately doubled the capacity of BHC's surface supply.

The company grew steadily after the war, mirroring the growth of suburbia. To serve its enlarged franchise area, the company extended existing water lines and installed miles and miles of new water mains. Still, the demand for water continued to grow.

The creation of additional large reservoirs became a problem. Post-war residential and commercial development made it



BHC's back-office operations, 1929.

impractical and expensive to assemble the large blocks of land that would be necessary. But groundwater sources held promise.

BHC's utilization of wells that tap the underground reservoirs known as "aquifers" introduced a new, efficient, and economical source of water. Several well fields were already in operation when, in 1952, the company opened its Housatonic Well Field in Shelton. This well field taps one of the largest supplies of potable underground water in all of New England.

The company celebrated its 100th anniversary in 1957. The communities it served at the time had a total population of more than 270,000. They were using an average of 45 million gallons of water every single day—a far cry from the days of P. T. Barnum!

Frederick B. Silliman was BHC president from 1956-1973, during which time the Northeast suffered one of its most severe droughts on record, lasting from 1962 to 1966. Serious water shortages developed in neighboring communities, but BHC customers had no need for concern. Not only were its own customers unaffected by the drought, but BHC was able to help other water utilities meet their requirements.

Silliman presided over further expansion of the company's service area with acquisition of five small water companies in Litchfield County in the early 1960s. In 1963, BHC acquired the Seymour Water Company, adding three lower Naugatuck River Valley Communities— Seymour, Oxford and Beacon Falls—to its franchise area.

In the 1970s, the federal Safe Drinking Water Act set stringent standards for water quality. When it was determined that water from the Trap Falls Supply System did not consistently comply with all of the new standards, the company set about to create a state-of-the-art treatment plant to be built on 10 acres of land near Trap Falls Reservoir in Shelton, Connecticut. A complex undertaking, the project required three years and \$18 million to complete and was placed in full operation in January 1981.

BHC's supply sources, which include four reservoir systems with a total shortage capacity of 24.5 billion gallons supplemented by substantial well field capacity, provide a safe daily yield of 109 million gallons, approximately 50 percent above average daily demand. This ample reserve makes it possible for BHC to still help meet the needs of other neighboring water utilities. In 1989, BHC completed the Southwestern Regional Pipeline Interconnection, a cooperative effort among BHC, SWC and two other water companies to augment the water supply to the lower Fairfield County towns of Norwalk, New Canaan, Darien and Greenwich.

That same year, BHC sold a 382-acre tract of land, known as the Pequonnock River Valley, for below-market value to the Connecticut Department of Environmental Protection and the Town of Trumbull, Connecticut, to be preserved in perpetuity as open space and for passive recreation. For its "initiative and cooperation in the conservation of lands along the Pequonnock River," BHC received the 1991 Governor's Environment/2000 Recognition Award.

The 1986 amendments to the SDWA, in particular the Surface Water Treatment Rule, further tightened water quality regulations, and it was soon determined that the balance of BHC's surface water supplies would need to be filtered. In 1993, the Easton Lake Reservoir Water Treatment Plant was placed into service, a \$27 million facility with a 20 mgd capacity. In 1994, BHC began construction of two smaller filtration systems in northwestern Connecticut, and broke ground on a \$50 million plant at Hemlocks Reservoir in Fairfield, Connecticut. When completed in 1997, the new facility will employ dissolved air flotation and will have a 50 mgd capacity.

The company that began three years before the Civil War to meet the needs of a growing community is now the seventh largest (based on revenues) investor-owned water utility in the nation. A wholly owned subsidiary of Aquarion Company, a New York Stock Exchange-listed company with interests in public water supply and environmental testing laboratories, BHC serves a population of nearly a half million in 22 communities in three Connecticut counties. Believed to be the largest private landholder in the state, BHC owns about 20,000 acres of watershed land. It also has approximately 2,700 acres of surplus, off-watershed land-most of it in Fairfield County-which it intends to sell on a gradual basis as market conditions dictate. The proceeds will be used to help finance the estimated \$125 million in filtration construction and other water system improvements from 1995 through the year 2000.

As it approaches the 21st century, BHC renews its commitment to provide its customers with an abundant supply of quality water and to continue the high level of service and record of environmental stewardship that have been the hallmarks of the company's remarkable past. 6



Cutting a one-half mile tunnel through solid rockto connect BHC's Saugatuck and Aspetuck Reservoirs, 1940.

corporate changes

Promotions at SJWC

San Jose Water Co. recently announced the promotion of W. Richard Roth to President and Chief Operating Officer. Roth joined San Jose Water Co. in 1990 as the Chief Financial Officer and Treasurer and has worked as both the Vice President-Finance and Senior Vice President. Roth received his M.B.A. in Accounting and Finance as well as his B.S. in Microbiology from Montana State University. He is a member of the American Institute of Certified Public Accountants, California State Society of Certified Public Accountants and a Trustee, San Jose Cleveland Ballet. Prior to working for San Jose Water Co., Roth was the Senior Manager, KPMG Peat Marwick, San Jose, California.

San Jose Water Company has also announced the promotion of Angela Yip to the position of Chief Financial Officer and



Treasurer. Yip joined San Jose Water Co. in 1986 and has worked in both the Finance and Regulatory Affairs Departments. Yip is a Certified Public Accountant and has a Bachelor's Degree in Business Administration from the



Concordia University in Montreal and a Masters Degree in Accounting from the Golden Gate University in San Francisco. Prior to joining San Jose Water, Yip worked in public accounting firms and private industry.

Advancements at UWR

United Water Resources has broadened the responsibilities of four executives, according to an announcement by Donald L. Correll, chairman and CEO. Ronald S. Dungan and Frank J. De Micco were elected senior vice presidents of United Water Resources Management and Services Company. Walton F. Hill has advanced to vice president-regulatory law, and Robert J. Iacullo was elected vice president-rates for the management and services company.

Correll said the moves are designed to sharpen United Water's focus on growth opportunities in its core water utility business, and to achieve synergies from its recent merger with the parent firm of General Waterworks Corporation.

Dungan will be responsible for United Water's efforts to assess investment and acquisition opportunities in the water service industry, and will continue to serve as president of General Waterworks Corporation, which is now a United Water subsidiary. De Micco, who had been vice president-operations for Hackensack and Spring Valley Water Companies, will also assume operating responsibility for General Waterworks' utilities.

With their new responsibilities, Hill and lacullo will form a team to strengthen United Water's involvement with regulatory commissions in the 14 states where its utilities operate, Correll said. Iacullo, who was previously vice president-rate development for Hackensack and Spring Valley water companies, will oversee all rate development activity. Hill, who was vice president-rates with General Waterworks, will direct the legal aspects of the regulatory process for all of the companies.

New CWS Officers

At its monthly meeting on October 19, 1994, the Board of Directors of California Water Service Company elected Gerald F. Feeney and Calvin L. Breed officers of the company effective November 1, 1994.

Feeney was elected Vice President, Chief Financial Officer and Treasurer. Feeney replaces Harold C. Ulrich, who retired November 1 after 32 years with the company. Prior to his election to CFO, Feeney served as Controller for the company since 1976. Before joining Cal Water, he was an account manager with KPMG Peat Marwick. Feeney, a CPA, was graduated from San Jose State University in 1969 with a B.S. in Accounting. Feeney is married and has two children.

Elected to fill Feeney's prior position as Controller, Assistant Secretary and Assistant Treasurer, was Breed. Breed is a new addition to the company having moved from TCI International—a defense contractor—where he worked since 1984, most recently as Treasurer. From 1980 to 1983, Breed worked as an auditor for Arthur Andersen & Co., San Jose. Breed, a CPA, was graduated from California Polytechnic State University, San Luis Obispo, in 1977 with a B.S. in Accounting. Breed is married and has one child.



Gerald F. Feeney



Calvin L. Breed

Wharton Promoted at IWC

Martha L. Wharton has been promoted to vice president of customer service of the Indianapolis Water Co. Prior to her promotion, she had been serving as the company's vice president and manager of customer relations. Wharton joined the company in 1966 as an executive secretary. She has been active in the Indiana Section of the American Water Works Association (AWWA), serving in a series of leadership positions including secretarytreasurer in 1983. In 1991, she was awarded the Fuller Award for distinguished service in the water industry by AWWA. Wharton was the first woman to be honored with this award in the Indiana section.

Senior VP at UWR

Joseph Simunovich has been elected senior vice president-external affairs and marketing for United Water Resources Management and Services Company, a subsidiary of United Water Resources. Chairman and chief executive officer Donald L. Correll said Simunovich's advancement is part of an overall strategy to strengthen United Water's focus on growth opportunities in its core water services business.

In his new role, Simunovich will oversee a nationwide marketing initiative by United Water for opportunities to expand its core water business in innovative new ways, Correll said. The chairman cited Simunovich's central role in creating United Water's recent precedent-setting contract to manage the water system for the city of Hoboken, New Jersey, as an example of the public-private partnerships that are dramatically changing the nation's water industry. He will also provide strategic direction and oversight for United Water's legislative and government relations efforts.

Russo Elected to Middlesex BoD

Middlesex Water Company has announced the election of Richard A. Russo to its Board of Directors, effective December 1, 1994. Russo has served as Vice President-Operations of the company, with responsibility for the administration and management of the engineering, production, treatment and distribution maintenance departments since August 1989. In 1994, he was named President of Tidewater Utilities, Inc., a wholly-owned subsidiary which serves over 5,000 customers in Delaware. Russo was formerly General Superintendent and Chief Engineer of Trenton Water Works. He graduated from Villanova University in 1968 with a degree in civil engineering.



UWR Taps McGlynn

Richard B. McGlynn will join United Water Resources Management and Services Company as vice president-general counsel. McGlynn was elected to the position by the company's board of directors.

McGlynn will oversee the corporate legal affairs of United Water and its key utility subsidiaries, Hackensack Water Company and General Waterworks Corporation, and will advise the board of directors and senior management on corporate matters as general counsel, Correll said.

Correll said, "Rich McGlynn has acquired broad experience in utility law, both in his private law practice and in his tenure as a regulatory commissioner and a member of the judiciary. This background, coupled with his enormous insight into the workings of business and government, make him a welcome addition to our management team as United Water pursues its aggressive growth strategy."

*Fred Laurino has counseled United Water's senior management team during some of the most dynamic periods in our history," Correll said. "During the late 70s and early 80s Fred oversaw the legal aspects of approvals and construction of the Wanaque South project, a complex construction program in which we invested more than a quarter of a billion dollars in water supply and purification facilities."

McGlynn is a partner in the law firm of LeBoeuf, Lamb, Greene and MacRae, and heads the firm's New Jersey utility department, based in Newark. Previously, he was a partner in the Newark law firm of Stryker, Tams and Dill. From 1976 to 1980 he served as commissioner on the New Jersey Board of Public Utilities.

Laurino, who retired December 1, headed the legal staff for United Water and Hackensack Water Company for most of the last 26 years. In 1993, his responsibilities as vice president-legal affairs were broadened when he was named general counsel. From 1985 to 1993, he was also president of Rivervale Realty Company, a United Water subsidiary.

Hartelius Promoted at NJ-American

Paul V. Hartelius, III, assumed the responsibilities of manager of New Jersey-American Water Company's Short Hills operation in July. In this capacity, Hartelius is responsible for the management of the company's Short Hills operating center, which provides water service to more than 240,000 people in 34 communities throughout Essex, Morris, Somerset, Union, Warren, Passaic, and Hunterdon counties.

Hartelius joined the company in 1981 as a resident engineer. He has held increasingly responsible positions, including management of engineering, production, and distribution activities at the Short Hills operating center. Prior to 1981, Hartelius was employed as a principal engineer for the New Jersey Board of Public Utilities.

He holds his bachelor's and master's degrees in civil engineering from the New Jersey Institute of Technology and is a registered professional engineer. Hartelius is married and has two children.

Utilities, Inc. Management Changes

On July 18, 1994, Perry Owens, Chairman of Utilities Inc., announced two changes in the company's organizational structure. He appointed Jim Camaren to the position of Vice Chairman and Larry Schumacher to the position of President.

Camaren joined Utilities, Inc., in 1987 as the Vice President of Business Development. In his role as Executive Vice President, his duties included the evaluation of investment opportunities, negotiation of acquisition candidates, and the coordination of in-house legal activities. In his new role as Vice Chairman, Camaren will work with Perry Owens in an expanded position of responsibility to focus the company on appropriate directions and goals for the future. Camaren graduated from UCLA with a Bachelor's degree in economics and later received his Master of Business Administration degree from Carnegie-Mellon University.

Schumacher has been employed with Utilities, Inc., since 1992. Formerly as Vice President of Finance, his duties included total responsibility for the Corporate Finance Department, financial reporting, coordination of branch office accounting issues and management of treasury functions. In his new role as president, he will continue his previous duties and become involved in the oversight of operations and regulatory activities of the company, as well as assume responsibility for personnel related areas. Schumacher received his Master of Business Administration degree from DePaul University and is a Certified Public Accountant.

New CWS Director

Linda Randall Meier was elected to the Board of Directors of California Water Service Company, as of December 1, 1994. She replaced L. V. "Bill" Lane, Jr., who retired November 30 after serving as a Director since 1989 and previously from 1967 to 1985.

Meier is on the Board of Directors, Stanford Health Services Hospital, where she has served as a Director since 1978 and Chair since 1992. She also serves as a Director of Stanford University, University Bank & Trust Company, Lucile Salter Packard Children's Hospital at Stanford and the Stanford University Athletic Board, serving as its first woman chair from 1984 to 1985. Meier is also active in a number of local community activities.

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Middlesex Releases Book on its History

Middlesex Water Co. recently celebrated the release of its new book-Middlesex Water Company, A Business History-with a Heritage Day and book signing at its Iselin, NJ, headquarters. The 234-page hard cover book, written by historian and central Jersey resident, Mark Lender, chronicles the company's growth from its modest beginnings in 1897 to the present time. It describes the company's role in fostering economic growth as it developed new supply sources, explored new technologies, faced stringent legal regulations and financial requirements, and met the increasing demands on its water supply through a remarkable period of change and challenge.

The book is a corporate biography of Middlesex Water Co. in the context of regional history. Written over a period of five years, it offers the reader an overview of the development of Middlesex County, NJ, in the early 1900s and the need for community water supplies. It also demonstrates how a private enterprise can maintain its independence while serving the public welfare. More specifically, it details Middlesex Water Company's organization, struggles and achievements through the age of regulation, the Depression, wars, and droughts, and demonstrates its ongoing commitment to customer service and the highest water quality standards as it nears its second century of service.

"The book is fascinating not only from a company historical standpoint, but also from the perspective of economic development," said J. Richard Tompkins, Chairman of the Board and President of Middlesex Water Company. "Utilities have and will continue to play an important role in advancing the economic growth of the communities they serve," said Tompkins.

"We're grateful to all of those who were consulted during the writing of this book-our past and present Directors,



Officers, and employees—for their cooperation, insights and recollections," added Tompkins. Copies of the book will be distributed to libraries and other business reference sources in the company's service area.

"As we approach our centennial anniversary in 1997 and begin a new chapter J. Richard Tompkins (r), with Mark Edward Lender, author of the newly published book, Middlesex Water Company, A Business History.

in our history, we have a solid foundation on which to build. Ours is a story of vision and growth and we have every reason to view the past with pride and our future with great promise," added Tompkins. Anyone interested in learning more about the book can call Bernadette Sohler 908/634-1500.

George Johnstone Honored

The Pennsylvania State University notified George W. Johnstone that he is one of fourteen individuals in 1995 to receive the "Outstanding Engineering Alumnus" award from Penn State's College of Engineering.

The title "Outstanding Engineering Alumnus" is a permanent designation which recognizes exceptional Penn State engineering alumni for their success as leaders in their field and for the impact they have had and will continue to have on society and their profession. These designated alumni provide outstanding role models for current engineering students.

Johnstone and his fellow 1995 additions to the Outstanding Engineering Alumni will receive their awards at a special ceremony and dinner at the University on March 31, 1995. Outstanding Engineering Alumni receive a placque and have their name and likeness engraved on the Outstanding Engineering Alumni Awards plaque which hangs in Kunkle Lounge at Penn State.

WV-American Holds Groundbreaking



On November 2, ground was officially broken for the largest water project in West Virginia in 22 years and what may be the first public/private partnership of its kind in the United States. Governor Gaston Caperton, Congressman Nick Joe Rahall, West Virginia Senator Leonard Anderson, and other dignitaries commemorated the long-awaited Mercer/Summers Regional Water Supply Project under blue skies and amid fall foliage.

State, county and federal officials; WV-American Water Company officers and representatives; and citizens of the Four Seasons area came together to mark the beginning of future expansion for southern West Virginia. The event was attended by approximately 200 people.

Chris Jarrett, WVAWC President, served as Master of Ceremonies for the 45-minute program held at the site of where the intake building will be constructed. G.C. Smith, Senior Vice President of Operations for the American Water System, was the first of four speakers followed by Congressman Rahall, Senator Anderson and Governor Caperton.

Phase One will meet the immediate needs of 45,000 people in Mercer and Summers counties and includes building a five million gallon a day water treatment facility near True, a raw water intake in the Bluestone Lake, and a booster station near Athens; installing 8,000 feet of 24inch water main, 107,000 feet of 24-inch main, and 27,000 feet of 8-inch mains; and erecting a 500,000 gallon storage tank at Pipestem.

The idea for this public/private partnership was born in mid-1992; local officials West Virginia Governor Gaston Caperton and G.C. Smith, Senior Vice President of the American Water System.

had been meeting since June, 1991, to find a solution to the water supply problems in the Pipestem area. Pipestem Resort State Park was turning away customers and needed to expand, but an adequate water supply to support economic development was not available. So Senator Anderson, the Region One staff, both county commissions, WV-American Water, and the Mayors of Princeton and Hinton met to discuss alternatives. Their forward looking attitudes and enthusiasm to strengthen southern West Virginia gave birth to the public/private partnership called the Mercer/Summers Water Supply Project.

Everyone in both counties, as well as Governor Caperton and his staff and Congressman Rahall and his staff, has made tremendous efforts to support this project and make the dream a reality, but the excitement is really just beginning. Phase One will take approximately 20–24 months to complete. Phase Two includes extending branch lines to 600 more customers. It is very possible that both phases could be completed and placed in-service simultaneously. Total cost of both phases is estimated at \$36.9 million.

Jarrett says, "The beauty of this public/private partnership is we can duplicate it anywhere in West Virginia and we should. Water quality is evolving to the point that the bigger you are, the better you can handle new drinking water standards. It is best to have one treatment plant and a lot of pipe serving lots of people, than to have a lot of small treatment facilities serving pockets of consumers around the state."

Indiana Merger Approved

In an order issued November 9, 1994, the Indiana Utility Regulatory Commission granted permission for Indiana Cities Water Corporation to merge into Indiana-American Water Company, Inc. Following the merger, the company will serve 160,000 customers in 18 Indiana communities including Crawfordsville, Franklin, Greenwood, Jeffersonville, Clarksville, New Albany, Kokomo, Muncie, Newburgh, Noblesville, Shelbyville, Somerset, Summitville, Richmond, Seymour, Sullivan, Terre Haute and Wabash.

An operational combination took effect on December 1, 1994, at which time all Indiana Cities locations began using the name Indiana-American Water Company, Inc. To simplify year-end-closing, the formal merger of the two companies took place on January 1, 1995. Indiana Cities no longer exists as a separate entity.

"Indiana Cities customers will begin to see the new name and logo on bill forms, company vehicles, uniforms and other items. The logo, a sun rising over flowing water, symbolizes the universal and timeless nature of the water cycle," said Richard Hargraves, president of Indiana-American and Indiana Cities.

The merger will allow the company to take full advantage of operating efficiencies. For example, the two companies currently maintain separate accounting records. Following the merger, only one set of books will be necessary. The merger will also reduce the required number of corporate proceedings, such as financing and related record keeping. With its increased size and diversified service areas, the company will be more attractive to investors, ultimately lowering its financing costs. These benefits should provide reduced costs that will be shared with customers.

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NAWC Executive Committee and Chairman of the Board: (top row, I to r) J. James Barr, J. Richard Tompkins, Floyd Wicks and Eugene Owen; (Jower row, I to r) Robert Luksa, Robert Dolson, Jack McGregor, Sharon Gascon, James Groff and Ronald Dungan.