



*association of  
metropolitan  
water agencies*

*gold awards for  
competitiveness  
achievement*

*October 2002*

*Recognizing water agencies where  
management practices chart new courses,  
seek new opportunities and  
meet the ever-expanding demands  
of consumers and market forces*

City of Boca Raton  
Utility Services Department

Butler County Department of  
Environmental Services

Fort Wayne City Utilities

City of Henderson  
Department of Utility Services

Honolulu Board of Water Supply

City of Houston Department  
of Public Works and Engineering  
Water Production Branch

JEA

Los Angeles Department of  
Water and Power

Miami-Dade Water and  
Sewer Department

Minneapolis Water Works

Nashville Metro Water Services

Newport News Waterworks

Norfolk Department of Utilities

Santa Clara Valley Water District

City of Scottsdale  
Water Resources Department

Tempe Water Utilities Department

Congratulations to the 16 award-winning water agencies whose high-quality management practices are meeting the competitive challenges facing the industry. These municipal water leaders are charting new financial courses, seeking new growth opportunities and meeting the growing service needs and expectations of their customers.

This marks the [Association of Metropolitan Water Agencies](#)' third round of **Gold Awards for Competitiveness Achievement**, a program designed to recognize the substantial progress public water utilities are making to set new business directions in an increasingly competitive environment.

Publicly owned water systems regularly overcome challenges that are not faced by private water companies, including civil service and procurement laws, as well as a social obligation to ensure safe water for every citizen, regardless of income level. Their customers demand faster, better and cheaper service, while local government leaders expect water systems to operate using best business practices. In spite of these additional challenges, competitive publicly owned water systems outperform even the best private companies.

In evaluating the **Gold Award** entries, the judges considered each company's benchmarking and competitiveness strategy. They assessed competitiveness improvement initiatives in the areas of plant, maintenance, engineering, finance, administration and employee development. Winners showed significant accomplishments in these areas, meeting goals for overall efficiency, cost of operation and quality of service. Many successfully use labor-management task forces to reengineer work processes, have strong ongoing programs for evaluating customer satisfaction and employ proactive measures to ensure or improve their bond ratings. Their forward-looking plans for systematically replacing and rehabilitating their production and delivery system infrastructure help ensure adequate water supplies for the future.

[AMWA's Gold Award](#) winners are among the best-operated water systems in the nation. Their performance reflects very positively on the industry, and the consumers and public officials they serve have good reason to be proud of their accomplishments.



Diane VanDe Hei  
*Executive Director*


# City of Boca Raton Utility Services Department

Michael J. Woika, Director

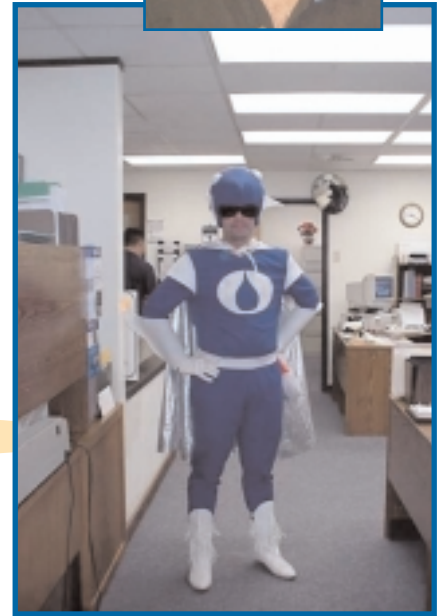
For the past two years, the City of Boca Raton (Florida) Utility Services Department participated in a competitiveness process that improved many areas within both the organization and its operations. Although a bit different than more common benchmarking and competitive analysis initiatives, the process used some elements from those types of initiatives. The core of the Boca Raton Utility Services process, known as the SPIT DUST (Strategic Planning in the Department of Utility Services Teams), is the use of employee action teams that develop and implement the action plans to improve the organization and its operations.

The activities and ideas of the employee action teams led to numerous improvements, including:

- Lap top computers in field vehicles with real-time communication
- Increased employee training opportunities
- A proactive safety incentive program
- A preventive maintenance program for treatment facility equipment
- An employee recognition program
- A more effective employee performance evaluation process

Since it is centered on employee groups and involves all of the department's employees, the process has improved organizational efficiency, communication and employee morale. 

Michael J. Woika




Hydroman, Boca Raton's caped superhero, talks to preschool children about water conservation and environmental protection.

# Butler County Department of Environmental Services

James A. Parrott, Director

Butler County (Ohio) Department of Environmental Services (BCDES) thinks and acts like a privately owned utility, while keeping the high level of quality customer service that government does best. In 1998, BCDES embarked on an improvement journey that resulted in the organization meeting its goal to be the best, most competitive utility in Ohio. BCDES even bid competitively against the private providers for the operation of the wastewater services of a nearby county.

A competitive gap analysis was performed in 1998, and over the next three years the organization succeeded in closing that gap. BCDES is no longer a target for the private providers. The success of the department is attributed to the cooperation of the 150-member staff of dedicated, talented and creative people and the support of the Butler County Board of Commissioners, who have high expectations for the department. With a staggering annual growth rate of over six percent, BCDES is controlling costs, providing high quality water and sewer service and exhibiting exceptional environmental stewardship through its public outreach programs.

The department was proud to announce that no rate increases for water or sewer service would be enacted in 2002 – the first time in 12 years. That is a testament to the hard work that BCDES does to stay competitive. This public utility wears two hats – the governmental hat that truly cares about the public it serves, and the private hat that works diligently to be lean and mean. 

James A. Parrott



A partnership with a local community college, Cincinnati State, brings the classroom directly to BCDES employees who are pursuing a technical degree in environmental engineering.

*Gold Awards for Competitiveness Achievement*

# Fort Wayne City Utilities


Graham Richard, Mayor

Ted Rhinehart, Director of Public Works and Utilities

Fort Wayne City (Indiana) Utilities has demonstrated competitiveness through benchmarking, employee development, fiscal responsibility, innovation and excellence in customer service.

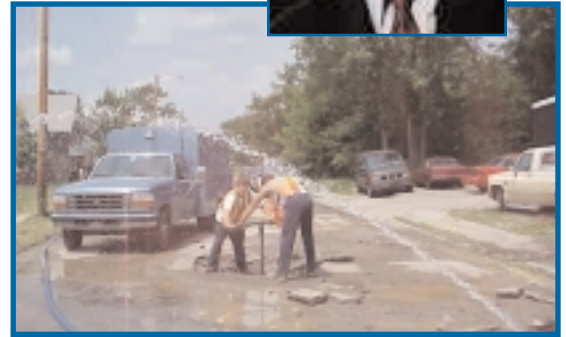
A competitiveness assessment and a series of reengineering successes proved this publicly managed utility was competitive with privately managed utilities. As a result, the City began projects to reduce competitive gaps in other departments and is taking steps toward implementing best practices identified in the competitiveness assessment.

Through the use of Six Sigma, the City of Fort Wayne and Fort Wayne City Utilities demonstrate that they are committed to employee development, innovation and, ultimately, becoming more competitive.

Fort Wayne City Utilities is moving systematically and steadily to position itself as a business-oriented public utility. Its progress shows how utilities can reengineer and show quick wins – improving productivity and decreasing costs. 



Graham Richard



Fort Wayne water maintenance workers turn a valve to repair a water main. Reengineering teams in the City's Department of Water Maintenance and Services developed a simplified structure that emphasizes workforce flexibility, with the needs of the job determining the size of the crew and other resources.

# City of Henderson, Nevada's Department of Utility Services


Kurt R. Segler, Director

The City of Henderson, Nevada, Department of Utility Services provides water, reclaimed water and wastewater services through a system that includes an 18-mgd water treatment plant, a 24-mgd water reclamation facility, six pumping stations and nine reservoirs for reclaimed water to irrigate golf courses, medians and cemeteries.

Some of the Utility's main achievements over the past several years include:

- The water treatment plant is currently in the process of completing an upgrade to utilize state-of-the-art ultraviolet (UV) disinfection.
- The laboratory received the 2001 Project of the Year award from the National Association of Industrial and Office Parks for its state-of-the-art facility.

• The City established a team to evaluate the existing capital improvement projects (CIP) process and recommend improvements. Once fully implemented, the plan will estimate future funding needs for new utility infrastructure and repair/replacement of existing infrastructure.

• The Utility installed touch-to-read automated technology on approximately half of the City's meters during 2000 and 2001. It is currently retrofitting all of the City's meters with a radio-read technology. 



Kurt Segler



A Henderson meter reader uses touch-to-read automated technology that was installed on approximately half of the City's meters during 2000 and 2001.

# Honolulu Board of Water Supply

Clifford S. Jamile, Manager and Chief Engineer

Donna F. Kiyosaki, Deputy Manager and Chief Engineer




Donna F. Kiyosaki

The Honolulu Board of Water Supply (HBWS) is a publicly owned and operated, self-supporting, semi-autonomous government agency of the City and County of Honolulu. The HBWS is the municipal water services provider on the island of Oahu and also provides selected business services to other Honolulu municipal agencies, the neighbor islands of Kauai and Maui, and other public utilities in the Pacific Rim. The HBWS provides an average 150 mgd of potable water through 1,900 miles of pipeline using more than 160 reservoirs and pumping station sites.

In 1999, HBWS initiated a five-year transformation program to improve competitiveness and customer service throughout its service domain. This program, QUEST (Quality Utility Employees Succeeding Together), emphasizes

customer service and employs a participative design and implementation approach to involve employees and their labor unions. The HBWS actively pursues and values partnership with labor to assure proposed changes are mutually beneficial whenever possible. QUEST seeks permanent quantum performance improvement.

The program's substantial savings to date are real, permanent and cumulative. HBWS has saved over \$17 million in operating costs due to activities associated with the QUEST program. The QUEST program provides a model for transforming government organizations in Hawaii and is expected to deliver similar additional savings in operating costs as it moves to completion. 



The Honolulu Board of Water Supply's Field Operations Pilot Design Team redesigned work processes to improve productivity as part of the utility's QUEST program, which saved over \$17 million in overall operating costs since its inception in 1999.

# Houston Department of Public Works and Engineering Water Production Branch

Jon C. Vanden Bosch, P.E., Director of Public Works and Engineering

Gary N. Oradat, Deputy Director, Houston Public Utilities




Jon C. Vanden Bosch

The City of Houston began a long-term program in 1997 to improve its competitive posture, achieving parity with the most efficient private utility operating companies. This program involved:

- extensive improvements to the utility's technology utilization through implementation of state-of-the-art SCADA and CMMS systems
- managing chemical and electrical costs
- expanding the skill base and flexibility of the workforce
- streamlining purchasing and inventory control systems
- implementing more cost-effective coagulation strategies at surface water treatment plants.

Efficiencies achieved by implementation of this program resulted in a 28 percent staffing reduction through attrition and a 14 percent reduction in annual overhead and maintenance costs. Chemical costs at the surface water plants were reduced at the same time the utility was adopting the stringent turbidity goals of the Partnership For Safe Water. Electrical costs remained relatively constant in a rising rate environment.

These efficiencies were achieved while maintaining the quality of water and service delivered to customers. Achievement of this goal was evidenced by a 99.8 percent customer satisfaction rating throughout the period. The Water Production Branch has become cost competitive and is preparing to launch the second phase of its competitiveness program. 




Houston's dual train 22-gallon-per-minute pilot plant allows the evaluation of new treatment technologies.

# JEA

Walter P. Bussells, Managing Director/CEO

JEA's record of technical and service excellence evolves from its dual goals: to make customers lives better through reliability, growth, accessibility and accountability, and to help the community prosper and succeed. JEA –which serves Jacksonville and northeast Florida– combined talents, strategy, strategic initiatives and values to develop processes that are efficient and provide better service to its customers. By fundamentally changing a traditional vertical management structure, JEA provided an opportunity for all employees to better respond to customer expectations and demonstrate a continued commitment to building community. As a whole, the company works to implement the strategic plan, which is guided by the following core values: do the right thing; personal safety; well being and development; honesty and trust; and, innovation and creativity.

TargetSmart, a process-centered, data-driven work system that makes every employee accountable for results, will drive JEA to design products and services that meet external and internal customer needs safely and efficiently. By creating a self-disciplined TargetSmart approach, JEA can accelerate process and system changes that will improve workplace safety, increase customer satisfaction and loyalty, eliminate waste, reduce variation, improve cycle time and reduce costs – resulting in higher levels of performance. These fundamental changes are critical to JEA's success in this competitive world. 



Walter P. Bussells



JEA's Maitland water treatment reservoir was painted with a nature mural by local art students as part of a beautification project. The utility's Project Outreach group has spent countless hours working with customers, neighborhood associations and civic leaders to build strong and lasting community and customer relationships.


## Los Angeles Department of Water and Power

Gerald A. Gewe, Assistant General Manager – Water  
Jim McDaniel, Director of Water Quality and Operations

The Los Angeles Department of Water and Power (LADWP) is the largest municipal utility and one of the most complex water systems in the country. While the focus for improving the LADWP is often multifaceted, the primary areas of focus have been in information technology, infrastructure management and work force development.

To increase effectiveness, LADWP is implementing four major technology systems: a consolidated SCADA system; a computerized maintenance management system utilizing MAXIMO; a project management and capital improvement program using Primavera; and, a customer relationship management system.

Management of infrastructure increases reliability, controls O&M costs and improves customer service. In its Cement-Lining Program, LADWP lined between 500,000 and one million feet of pipe each year over the past decade. The Main Replacement Program installed an average of 130,000 feet each year for the last decade, and water meters are being replaced with a goal of having 667,000 completed within the next 10 years.

Finally, the LADWP is developing a highly skilled and productive work force. Its Productivity Measurement System saved tens of millions of dollars over the last decade and continues to produce major dividends. Making use of the Mutual Gains Bargaining process and involving employees in the development of the strategic plan greatly improved employee relations and buy-in. 



Gerald A. Gewe



A newly formed LADWP trunk line construction crew installs reclaimed water pipeline. Part of an active infrastructure replacement program, the new unit is addressing the need to install large diameter trunk lines over the next ten years. For many years, the utility's large diameter trunk lines were installed by contractors.

*Gold Awards for Competitiveness Achievement*

# Miami-Dade Water and Sewer Department


William Brant, Director



William Brant

Miami-Dade Water and Sewer Department (MDWASD) partnered with the employee unions to improve the efficiency of the department by creating the Partnership Optimizing the WASD's Efficiency & Reengineering (POWER) Program.

The POWER Program provided an opportunity for all employees to participate in the decision-making process and share in any potential savings. MDWASD employees were encouraged by the department director and union presidents to make suggestions to improve the efficiency of the department. Over 3,500 suggestions were received. The suggestions were reviewed, prioritized and many were easily implemented, while others needed a Process Improvement Team (PIT) to review, evaluate and make recommendations.

Hundreds of efficiency innovations were implemented across the board that resulted in \$13.7 million in documented cost savings. In addition to the specific cost savings initiatives, \$52 million per year was reduced in the operations and maintenance expenditures. At the same time, there were no employee lay-offs and the water and sewer rates decreased. The employees also shared in the savings as the Board of County Commissioners approved employee bonuses. 



WASD employees gave Miami-Dade County a check for \$4.2 million for efficiency savings in fiscal year 2000-2001 at the County's Efficiency and Competition Commission meeting in May of 2002.

# Minneapolis Water Works

Adam Kramer, Director



Adam Kramer


The Minneapolis Water Works (MWW) embarked in 1999 upon a five-year Change Management Program. The MWW vision states that the utility will provide customers with quality water and cost effective services in a manner that protects the safety of employees and the environment.

Working on developing a more competitive organization during the past three years, the following accomplishments were achieved:

- A competitive assessment compared the MWW to the most efficient public and private utilities in the world. The assessment identified MWW's competitive gap and made specific recommendations to enhance MWW's effectiveness and efficiency and to reduce its operating costs.

- A Change Management Program plan was developed by an MWW steering team. The plan included MWW's competitive and change program goals and measurements. The plans also identified design teams to work on specific areas of the change program.

- The design of MWW's future organization and work practices is being completed primarily by the design teams in the areas of operations and maintenance of plants, facilities and the distribution system.

- The implementation phase will include pilot implementation of the program's design, full implementation of successful pilots and future optimization of the Change Management Program throughout the MWW. 



This Minneapolis Water Works treatment facility is part of the utility's \$1 billion distribution infrastructure system.

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# Nashville Metro Water Services

Scott A. Potter, Director

Metro Water Services (MWS) of Nashville provides water to more than 133,000 customers with two water treatment plants, each having a design capacity of 90 mgd. The utility maintains more than 2,500 miles of pressurized water mains, 44 reservoirs and 58 water pumping stations.

With a goal of continuous improvement, MWS conducted reengineering efforts through a variety of competitive performance plans, including studies and improvements pertaining to personnel/staffing, energy conservation, purchasing and strategic outsourcing. A partnership between labor and management allowed for extensive employee involvement in the reengineering process. Numerous employee study teams are utilized to focus on individual MWS divisions and cost reduction opportunities.

The organization has downsized from 1,025 to its present level of 637 employees. Cross training was maximized for a smaller, more flexible workforce, and a variety of communication methods were used to further inform and involve employees. MWS introduced new technologies for the call center, such as Interactive Voice Response (IVR), and implemented an automated call dispatch system to receive and route calls more efficiently.

MWS has an ongoing Waterline Infrastructure Rehabilitation (WIR) program to systematically replace and rehabilitate its production and delivery system. New technologies, such as leak detectors and water quality monitoring devices, were introduced and have led to improvements in customer and employee satisfaction, productivity and cost. 



Scott A. Potter




An Employee Study Team at Metro Water Services takes part in a brainstorming session on cost reduction opportunities. The teams include all levels of employees, including union members, to allow for broad input from employees with the most direct knowledge of the activities being examined.

# Newport News Waterworks

Brian L. Ramaley, Director

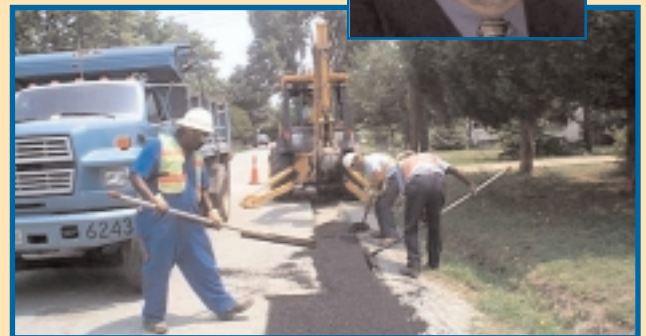
Newport News Waterworks recognizes that the key to achieving competitiveness is to rely on the abilities of all its employees. Waterworks conducts regular strategic planning sessions with a broad cross-section of employees to develop strategies to make it more competitive. It has implemented a program called Target Employee Awareness and Motivation (TEAM) to involve employees in shaping Waterworks' future.

Waterworks has long used benchmarking to measure efficiency and to improve future performance. To measure customer satisfaction, a professional survey of customers was conducted and another is planned for the upcoming fiscal year. Waterworks' efforts in managing its resources have had a positive impact in ensuring and improving the City of Newport News' bond ratings.

The Newport News City Council continually supports efforts of the Waterworks through rates, operating budgets, bond referendums and support of projects. Assessments performed by various entities and in conjunction with numerous AwwaRF projects have yielded the general conclusion that Waterworks is a well-managed and efficient organization. With over 20 percent of its workforce having more than 20 years of service with Waterworks, the utility recognizes the strength it derives from them and fosters greater employee creativity through mechanisms such as the TEAM efforts. 



Brian L. Ramaley



Newport News Waterworks is continually evaluating operations for cost effectiveness. Pavement patching following waterline repairs is now conducted in-house, providing improved customer service and cost savings of approximately \$80,000 per year.

# Norfolk Department of Utilities


Kristen Lentz, Director



Kristen M. Lentz

The Norfolk Department of Utilities provides water to more than 700,000 people in Norfolk, Virginia Beach and Chesapeake, and at area U.S. Naval facilities. Norfolk Utilities has approximately 64,000 service accounts, providing water service and sewer conveyance for Norfolk's residents and businesses.

Norfolk Utilities strives to deliver a quality product at the best possible price to its customers. A number of initiatives are in place to ensure that operations are as effective and efficient as possible. The initiatives are coupled with a focus on customer satisfaction. Some of the most notable competitiveness initiatives include:

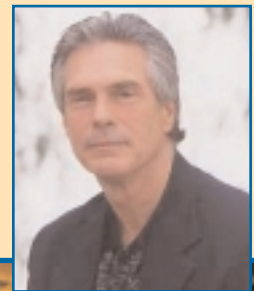
- Tracking and reporting of performance indicators for each of the seven departmental divisions;
- Participation in the Partnership for Safe Water;
- Increased use of Supervisory Control and Data Acquisition (SCADA) systems;
- Establishment of an e-government team to identify customer enhancements for the Utilities' web site;
- Reengineering efforts in Accounting, Engineering and Customer Service divisions;
- The award of three grants resulting from an increased focus on financial stability;
- Employee development initiatives including Round Table improvement teams, the Communications Team and the annual employee satisfaction survey; and,
- Partnership with a local community college to offer courses on-site for an Associates Degree in Industrial Management. 



Norfolk Utilities Waterworks Operators monitor the water treatment process using a Supervisory Control and Data Acquisition (SCADA) system.

# Santa Clara Valley Water District


Stan M. Williams, General Manager and COO



Stan M. Williams

The Santa Clara Valley Water District in California put into action an aggressive program of formal benchmarking and competitive analysis through a number of processes, including an AWWA Qualseve review, a comprehensive water utility audit and competitiveness improvement initiatives.

In 1998, the District participated in the AWWA Qualseve self and peer review program. The following year, the Board of Directors of the District initiated a comprehensive performance audit of the water enterprise and, in 2001, the District became a member of the AWWA Qualseve Benchmarking Clearinghouse. The Water Utility completed a three-year strategic plan, with the following vision statement: To be a forward thinking, competitive leader in regional water operations, driven by customer service.

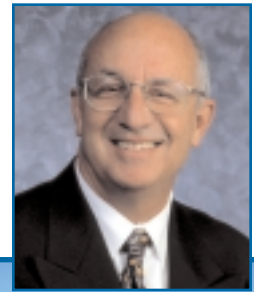
Strategic issues for the water utility include: meeting the demands of increased regulations; managing operations and infrastructure to ensure supply reliability; achieving adequate staffing through a flexible workforce; improving coordinated regional water operations; increasing its competitiveness; and improving accountability with external and internal stakeholders. The District has three established labor bargaining units, and management fosters an inclusive, positive working relationship with them all. It utilizes many mechanisms for getting outside advice, including the Bay Area Water Agency Coalition, Bay Area operations and international collaboration. 



The Santa Clara Valley Water District involved both management and water utility employees in strategic planning sessions to give those who operate the plants, perform the maintenance and do the engineering a stake in the District's mission and goals.

# City of Scottsdale Water Resources Department

David M. Mansfield, General Manager




David M. Mansfield

The City of Scottsdale, Arizona's reputation for innovation and creativity is based upon its receptiveness to employee initiatives. The Water Resources Department shares the City's values and its many recent achievements are due to employee-driven initiatives to achieve competitiveness and cost-effectiveness in each of its multi-faceted activities.

The Department's vision is to improve its competitiveness through periodic assessment and benchmarking with other "best-in-class" municipal utilities. As a result of a 1997 assessment by EMA, Scottsdale embarked upon an employee-driven improvement program, which resulted in an organizational reengineering and has allowed the Department to maintain a customer-to-employee ratio of 1,475:1. To achieve further excellence in competitiveness, Scottsdale recently contracted with the firm Maximus to perform an organizational review.

The City's \$200-million, award-winning Scottsdale Water Campus, a state-of-the-art water and wastewater treatment complex, operates on an aggressive staffing plan, with three-person teams working 12-hour shifts. These operators, who have dual certification in both water and wastewater, control 150 water and wastewater facilities utilizing Scottsdale's state-of-the-art SCADA system.

The Department's innovative achievements are based upon its efforts to surpass the expectations of Scottsdale's citizens by providing an environment that attracts and motivates a best-in-class workforce. 



The \$200 million, award-winning, Scottsdale Water Campus is a state-of-the-art facility reclaiming wastewater for indirect potable reuse.


# Tempe Water Utilities Department

W. Thomas Gallier, General Manager



W. Thomas Gallier

Starting in 1997, the City of Tempe, Arizona's water utility embarked on a major ongoing effort to improve its levels of efficiency and competitiveness. Five years later, the utility can look back with satisfaction at several significant achievements. First and foremost, the utility has maintained high levels of service delivery, while containing costs. The utility achieved and maintained the Phoenix metropolitan area's lowest water/wastewater rates for the last three years.

In the same period, staffing was reduced over nine percent by attrition, and overall savings were in excess of one million dollars per year for the past four years. A focus on employee training, education and participation has been the key, and the payoff has been significant. The operating savings, combined with a financially healthy retained earnings balance, allowed the utility to embark on a needed six-year, \$190-million capital construction program without significant utility rate increases. 



Two Tempe plant operators take part in cross training in an instrumentation and control skill block



The [Association of Metropolitan Water Agencies \(AMWA\)](#) serves drinking water utilities that provide clean, safe drinking water to more than 110 million Americans. The association represents the interests of these large publicly owned drinking water systems by working with Congress and federal agencies to ensure safe and cost-effective federal drinking water laws and regulations.

[AMWA](#) members are committed to effective public communication on drinking water quality, and they promote improved public water supply operations through collection and exchange of management, scientific and technical information. They believe publicly owned drinking water systems must be effective, efficient and competitive. They support promulgation of standards based upon sound health effects data, risk assessment, generally available technology and cost considerations. They advocate environmental priorities based on a scientific approach to policy making, renewed emphasis on pollution prevention and development of ground water and surface water protection initiatives. They maintain high levels of security and work closely with federal, state and local authorities and with other agencies to insure the safety of the nation's drinking water supplies.

[AMWA](#) is the nation's only policy-making organization solely for metropolitan water suppliers. Members are the general managers and CEOs of metropolitan water systems. As an association of top utility executives, [AMWA](#) can move quickly when strategic decisions are needed, can speak with authority on the full range of drinking water issues and can offer members access to others who share their level of experience and responsibility.

Keeping pace with tremendous changes in the drinking water industry, [AMWA](#) focuses on competitiveness issues, providing programs, publications and services to help water suppliers be more effective and efficient. Members have access to the ideas of industry experts and the experience of leading water agency managers on best practices for competing in today's challenging environment.

[AMWA's Gold Awards for Competitiveness Achievement](#) are just one part of the association's industry recognition program that honors distinguished achievement of utilities and individuals, as well as notable contributions to the drinking water industry and ultimately to the public.

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**Graphic Design:**

*Marshland Design 985-725-0658*



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