BROWN AND CALDWELL

QUARTERLY

Summer 2005, Volume 34, Number 1

Making the Value Connection

QUARTERLY

MARKETING COMMUNICATIONS DIRECTOR
Terry Peckham

EDITOR
Susan Wels

ART DIRECTOR
Calvin Ng

DESIGNERS
Calvin Ng, Anita Lee

COPY EDITOR
Dan Foscalina

ILLUSTRATORS
Luba Lukova, Mark Stearney, John Stevens, Francisco Loureiro

PHOTOGRAPHERS
Jeff Alexander, Paul Howell, Jimm Roberts, J. Emilio Flores

WRITERS
Susan Wels, Terry Peckham, Dan Foscalina

DISTRIBUTION
Helena Valentine

PRINTING
Bacchus Press

To speak with a Brown and Caldwell representative, call us at (800) 727-2224 or visit our web site at www.brownandcaldwell.com.

Brown and Caldwell provides environmental engineering and consulting services to public agencies, the federal government and industry.

Quarterly is published by Brown and Caldwell, P.O. Box 8045, Walnut Creek, CA 94596-1220; tel. (925) 937-9010. Subscriptions are free.

Brown and Caldwell is an equal opportunity employer and values work force diversity.

PRINTED WITH SOY INK

Printed on 100% recycled paper (50% PCW)

CONTENTS SUMMER 2005

ISSUES & IDEAS

Michael Drennan, P.E.
Vice President and Southern California Watershed Management Service Leader

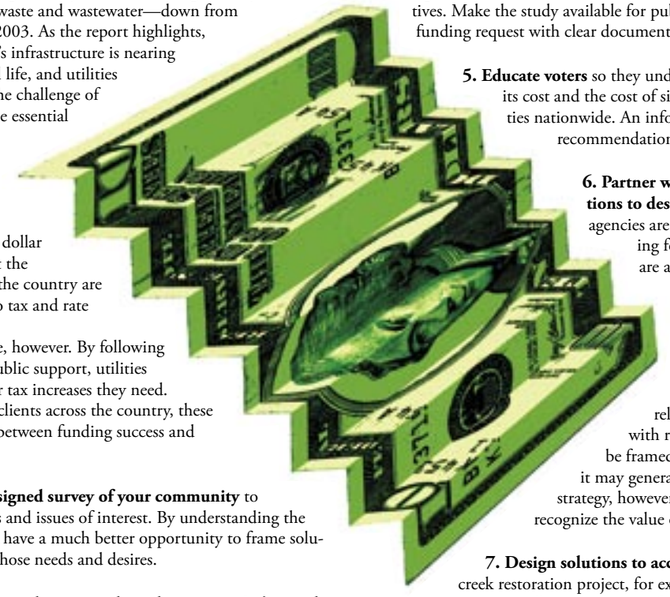
SEVEN STEPS
TO REPAIR AMERICA'S CRUMBLING INFRASTRUCTURE

By Michael Drennan

The American Society of Civil Engineers has published its 2005 Report Card for America's Infrastructure. The report gave the nation an overall grade of "D" for the poor condition of 15 infrastructure categories—including roadways, dams, drinking water systems, public parks, solid waste and wastewater—down from a D+ in 2001 and 2003. As the report highlights, much of the nation's infrastructure is nearing the end of its useful life, and utilities across the country are facing the challenge of rehabilitating or replacing these essential systems.

Funding these projects, however, presents major hurdles. Since the 1950s, funding for public works has dropped from 3 cents of every dollar to a mere fraction of a cent. At the same time, voters throughout the country are showing increased resistance to tax and rate hikes of any kind.

The news isn't all negative, however. By following a seven-step strategy to gain public support, utilities can successfully win the rate or tax increases they need. Based on our experience with clients across the country, these steps can mean the difference between funding success and failure at the ballot box.



1. Develop a formal, well-designed survey of your community to understand voters' hot buttons and issues of interest. By understanding the public's stated priorities, you'll have a much better opportunity to frame solutions in ways that respond to those needs and desires.

2. Package the solution in a way that responds to the community's stated priorities. In one California county, for example, the local utility needed to ask voters for money to solve flooding problems. The agency surveyed residents and found that they weren't interested in more concrete, trapezoidal flood-control channels. They were, however, interested in more natural approaches, along with clean water and parks. With that information, the utility was able to design a solution that was appealing and responsive to the public. Titled the "Clean, Safe Creeks and Natural Flood Protection" measure, it was approved by 67 percent of voters.

3. Create a bipartisan community advisory committee at the beginning of the study process to represent the many local interests who may speak out—for or against—on a proposed tax. Ask this group to serve as an oversight committee for technical and cost studies that define the problem and proposed solutions. The committee's close involvement will lend credibility to funding recommendations. It will also help insulate the agency requesting the funds, as well as elected officials whose support for the tax or bond measure may be needed.

4. Develop a clear, simple, technical study for decision-makers that defines the problem and evaluates the costs and benefits of several alternative solutions. Any time you ask the public to pay for something, it's wise to spend time looking closely at what needs to be done, as well as costs and possible alternatives. Make the study available for public review, and be able to justify the funding request with clear documentation.

5. Educate voters so they understand the problem, the solution, its cost and the cost of similar approaches in other communities nationwide. An informed voter is more likely to support recommendations and requests for funding.

6. Partner with private or nonprofit organizations to design a strong media campaign (local agencies are prohibited from actively campaigning for or against a proposed tax). Media are a key component of any public outreach and education program. They can help you positively present your point of view and capture the attention and participation of elected officials. If you're not proactively engaging the media with press releases and building relationships with reporters, chances are your story will be framed in terms of any controversy that it may generate. If you have a proactive media strategy, however, news reports are more likely to recognize the value of your proposal.

7. Design solutions to accomplish multiple objectives. A creek restoration project, for example, can be integrated into stormwater pollution reduction facilities. Stormwater detention basins and groundwater recharge facilities can serve a dual purpose as public parks. These innovative solutions may have added costs, but their additional benefits can also attract multiple local, state and federal funding partners, likely reducing the burden for all and the amount of funding for which you'll need voter approval.

Brown and Caldwell helps utilities use these strategies for success to win the public funding that they need. We understand that major infrastructure problems aren't always technical, and we've got the bench strength—in public outreach, project design, cost estimating, planning and engineering—to help clients successfully meet infrastructure challenges and see them through. (For more information on planning and funding approaches, see "California Teaming" on page 11.)

Michael Drennan is a licensed civil engineer in California, with 25 years' experience in the field of water quality/environmental regulations and policy. He chairs the Environment and Water Resources Technical Group of the American Society of Civil Engineers, Los Angeles Chapter.

ILLUSTRATION BY LUBA LUKOVA

ILLUSTRATION BY LUBA LUKOVA

When Tucson Water's new $85 million water treatment plant went on line in November 1992, it instantly produced a flood of customer anger. The treated Colorado River water that gushed out of customer taps was foul-smelling and red, and it damaged the plumbing and appliances in many homes.

Tucson Water faced a customer relations crisis. The new plant—and the treated Colorado River water it produced—were supposed to spare Tucson from its overdependence on dwindling supplies of groundwater. Instead of solving the city's water resource problems, however, the system immediately created new ones.

THE TUCSON TURNAROUND

The city's water agency regains public confidence with communication and customer engagement

Instead of shutting down the new system, the utility struggled to reassure furious customers while it tried to find solutions to the problem. Those steps, however, weren't enough. Tucson Water, a city department, also faced the wrath of the city council; as a result, the next few years were "very ugly," recalls the utility's Director of Communication Mitch Basefsky.

Public outrage led to the departure of Tucson Water's director and much if its upper management. The city council halted the delivery of treated river water, the new treatment plant was largely mothballed and activists were aiming to take city water policy into their own hands.

CONTINUED ON NEXT PAGE

"We had to prove our honesty and integrity and rebuild the trust of the community."

– David Modeer, Director, Tucson Water

Tucson Water's public information campaign centered on agency Director Dave Modeer and how he was working to make the utility a better organization. Customers frequently found Modeer *(above)* walking their neighborhoods, putting a face on the utility. As a result, Modeer—and Tucson Water—is one of the most recognized faces in the community.

By 1998, when Tucson Water's new director, David Modeer, arrived to take the reins of the department, he saw that its credibility was on the line. "We had to prove our honesty and integrity," he says, "and rebuild the trust of the community. We also had to convince the public that we could provide an acceptable river water product and, just as important, that we could deliver."

To begin its turnaround, Tucson Water went back to basics, focusing on rebuilding customer relations and communication. Its first step was to publicly apologize to customers for the 1992 river-water debacle. The utility then launched an aggressive public outreach program, called "At the Tap," to actively engage customers throughout the city. Tucson Water began placing newspaper ads asking for public input on water quality. Based on the responses, the utility began making key water quality information directly available to the public on its web site, in the newspaper and through a new telephone hotline.

At the same time, Tucson Water went back to the drawing board, researching how it could create and deliver a product using river water that customers would be willing to accept. Based on customer feedback from several tasting panels, the utility came up with a blended product that customers liked and could be produced by mixing naturally occurring groundwater with river water that was recharged into the ground.

Engineering the new solution, however, wouldn't be easy or cheap. To produce the blended water, the utility needed to build a major recharge facility outside Tucson. It also needed to replace or rehabilitate more than 200 miles of galvanized steel and cast-iron water mains, the source of many of the previous red-water problems.

Putting a face on the utility

There were also major political obstacles ahead. Activist groups were busy gathering signatures throughout the city for a ballot initiative that would keep the utility from implementing its new plan.

"Time was short," Modeer remembers. "We had to quickly educate customers about our solution and prove to them that we could be trusted to make it work."

With consultant Kaneen Public Relations, Tucson Water researched public perceptions and developed an educational campaign using television, radio and newspaper ads; bill inserts; newsletters; the web; and customer information booths located in shopping malls. The utility also recruited and trained 40 employee volunteers for a new speakers bureau that made hundreds of presentations to civic, neighborhood and professional organizations.

"We also wanted to put a face on the utility," Basefsky says. "Customers had to understand that we're part of the community, not a big bureaucracy with a bad reputation—that we're made up of people with families who are drinking the same water as they are."

To personalize Tucson Water, the public information campaign focused on Modeer and how he was working hard to make it a better organization. As a result, Basefsky notes, "Dave has become one of the most well-known and recognized faces in our community."

Taking it to the streets

To further boost public confidence, Tucson Water took public involvement to the streets. Its concept was to supply a small number of volunteer homes and neighborhoods with the new blended water as a demonstration of its quality and acceptability. The utility dubbed this unusual physical demonstration its "Ambassador Neighborhoods" program. "In all my years in the water profession," Modeer states, "I never saw anything like it."

In just six months, Basefsky notes, the utility completed the project's planning, design, permitting, construction and implementation. "We essentially designed, in a very small sense," he says, "a whole new water treatment and delivery system in that time."

"It was a success right from the start," Modeer recalls. More than 600 customers came forward as volunteers, and the utility ultimately selected four ambassador neighborhoods, supplying them with the new blended water for 90 days.

The new water product, he adds, was a hit with customers. "People loved it," he says. "They were stopping their bottled water deliveries and starting to drink water right out of the tap."

To make sure that other customers, too, could sample the blend, Tucson Water soon began distributing five-gallon and half-liter bottles of "the new Tucson water" all over the city. Although the utility originally planned to produce 6,000 bottles a month, demand was so high, Basefsky says, that it was soon producing up to 30,000 bottles a week.

Vote of confidence

Key allies also came on board to advocate for the new Tucson water. Academic, community and business leaders, Modeer says, realized that the blended water solution was important for Tucson's future, and they stepped up to fight the ballot measure. On Election Day, the utility won a major vote of confidence: 65 percent of voters supported its plan for blending groundwater with recharged river water.

In May 2001, the utility completed the first phase of the recharge system—including an eight-million-gallon reservoir, a booster station, nine wells and more than 24 miles of pipeline—and started sending the new blended water into the city. Since then, the system has been functioning smoothly, and Tucson's water table is gradually recovering from decades of over-pumping. The utility has been able to shut down more than 80 groundwater wells, and it's completing its first expansion of its recharge facilities.

Tucson Water is also staying focused on customer engagement and information. The utility is partnering with the University of Arizona, the National Science Foundation, the Pima County Health Department and others to keep customers up to date on water quality. The utility's web site, for example, features water quality information that's less than 24 hours old for every neighborhood in the city. Putting the customer first, Modeer says, has been the key to turning around Tucson Water's problems.

"We've gone way beyond what's standard in our industry," he reflects, "and it's paying off. I've always been amazed at the quality talent that stayed with this organization through difficult times. Now that talent is really showing what it can do."

Extreme makeover

Tucson Water's makeover was much more than public relations. It also involved re-engineering the organization from the ground up.

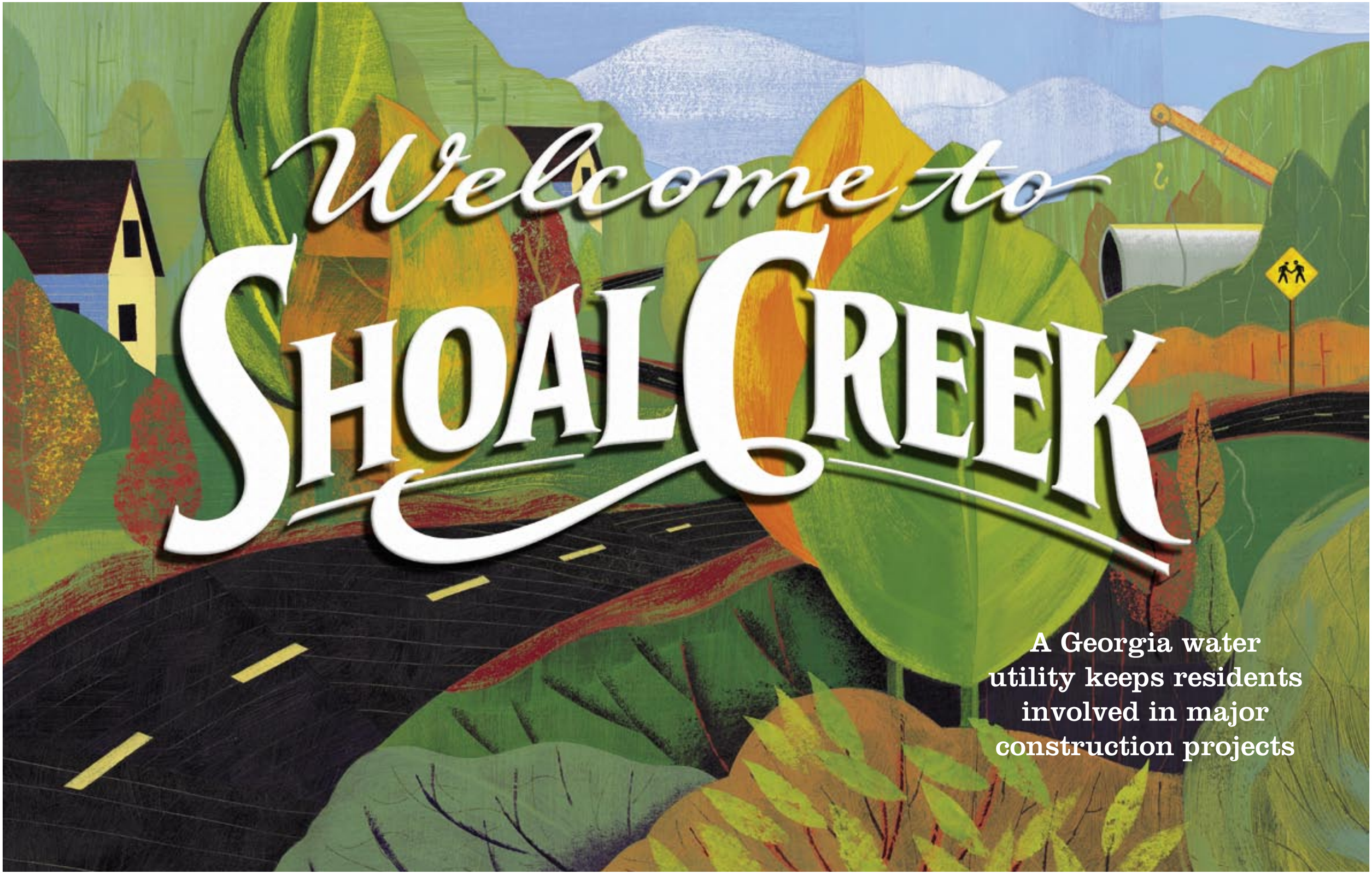
"We didn't want to impose solutions," Modeer explains. "We had to start focusing on being a better organization—for our employees as well as our community—but we wanted it to be driven from the bottom up. As a result, everything was up for discussion."

To turn the ailing organization around, the utility in 1999 began engaging all 600 employees in building the new, improved Tucson Water. Employees elected representatives from all parts of the utility—from meter readers to engineers—to head the organizational change program, called Vision 2004. The result? More training and funding; a new skill-based pay program; a leaner, more responsive and multidisciplinary work force; and a much better career path for employees.

"We put more faith and trust in our people, allowed them to have meaningful impact in the process and empowered them to do what they're skilled to do," Modeer says.

The transition has been very successful, he acknowledges, but very hard. "People have either converted to this way of running the utility," he notes, "or they've moved on."

The result, Basefsky adds, has been a "180-degree difference" in morale. "Before," he recalls, "people would take off their uniforms before they left the utility to go home. They had a lack of pride and a feeling of self-defeat. Now they believe in our mission and our ability to get it done. Our people have become our proudest, best ambassadors in the community."



A Georgia water utility keeps residents involved in major construction projects

PAINTING BY **MARK STEARNEY** LETTERING BY **JOHN STEVENS**

With a population of more than 700,000, Gwinnett County, Ga., is one of the fastest growing regions in the country. To make sure the county has a consistent supply of water to keep pace with rising demand, the Gwinnett County Department of Public Utilities (DPU) recently doubled its water treatment capacity, supplementing its single existing plant with a new facility, the Shoal Creek Filter Plant. DPU also added a new intake to draw water from Lake Lanier, the county's raw water source, and a pumping station to carry it to the Shoal Creek treatment facility.

All of these capital improvement projects were constructed over the past four years in a small section of the county near Lake Lanier, a popular recreation area near metro Atlanta. As a result, the potential for the construction to cause traffic problems and other public impacts was very high.

Crucial communication

DPU recognized the need to launch a wide-ranging outreach effort to help build public support for the improvement projects, explains BC's Terry Cole, who worked with DPU to develop the communication effort. "Since construction activity was concentrated in a small area of the community," she adds, "public buy-in was crucial."

DPU's comprehensive communication plan especially targeted the more than 700 property owners in the area most affected by the projects. Its main objective, Cole says, has been to keep the public informed and involved at every step to minimize issues that could delay or even halt construction.

Key goals were to dispel rumors, provide opportunities for open dialogue and offer timely and complete information about the project. With construction estimated to take nearly four years, Cole adds, it was also essential to coordinate information between DPU and its contractors to ensure that accurate and consistent messages got out to the public.

Dubbed the Lanier Community Outreach and Liaison project—LANCOOL—the public information and relations program has gone a long way toward building and maintaining community trust and support. "The program has set the standard for all future public involvement efforts," says former DPU Director Tommy Furlow. "I'm not aware of any infrastructure project of this magnitude undertaken in this county that has received so few complaints."

Personal connection

Face-to-face contact with residents has been a key aspect of LANCOOL's success. Signs posted on neighborhood street corners notify residents about local, open-house-style community meetings organized by the DPU to share information and get feedback about the projects.

"Inside, we'd have information stations manned by members of the DPU project teams," Cole says. "As a result, residents began developing personal relationships with DPU team members. All of a sudden, they were dealing with real people with names and faces, not just an impersonal county agency."

The utility supplemented those face-to-face meetings with newsletters and monthly updates, fact sheets posted on library bulletin boards and a telephone hotline number that speeds DPU response to any issues. LANCOOL, she adds, also trained DPU project team members on communications messages, plans and contacts. As a result, she says, "every manager knows exactly what to do and who to call, in any situation that may arise."

When dealing with the public, Cole adds, flexibility and fast response are crucial, and DPU has quickly handled community concerns as they've emerged. Neighbors in one community, for example, called DPU complaining of construction noise at a site after working hours, between 7 a.m. and 10 p.m. DPU was certain that its contractor was not working outside of the prescribed hours and quickly called a neighborhood meeting to answer questions and pinpoint the likely source of the noise, which turned out to be a nearby municipal landfill that was operating around the clock.

Another effective tool for customer response, Cole says, has been an interactive web site—www.lancool.com—that offers residents complete, current, one-stop information on every project. The site features pages on each individual project, as well as FAQs, plant schematics, architectural renderings, traffic plans, community meeting summaries, press releases, articles, 24-hour contact information, and tools that enable residents to express concerns directly to DPU staff.

A popular feature of the site, she adds, has been a calendar detailing local construction schedules. "DPU project managers," she explains, "have been able to directly access this area to give homeowners up-to-the-minute notice on construction, road closings and blastings. This information has enabled residents to adjust their daily routines as necessary to minimize any inconvenience. People have really become accustomed to checking that web site regularly so they know what construction activities are going to be coming up."

The web site, she notes, proved especially critical after a deadly pipeline accident claimed the lives of two workers employed by a pipeline contractor. Information about the accident was quickly posted on the site and continually updated as the situation evolved. To help maintain community trust and support, one of the project managers—familiar to residents from neighborhood meetings—spoke directly to the public on the web site via streaming video, expressing her sympathy to the victims' families and explaining how DPU would be proceeding.

Change in attitude

One of the most important aspects of the program, Cole says, has been the change in attitude of DPU's construction managers. LANCOOL's positive results have overcome traditional concern over the time and resources needed for public involvement.

"Instead of a burden," she says, "they've come to see public outreach as essential. It's the glue that holds all their infrastructure projects together."

For more information, contact Terry Cole at (770) 673-3697 or tcole@brwncald.com.

WELCOME TO SHOAL CREEK

"Since construction activity was concentrated in a small area of the community, public buy-in was crucial."

DPU recognized the need to launch a wide-ranging outreach effort to build public support for the Shoal Creek Filtration Plant *(left)* and other related capital improvement projects. Face-to-face feedback with residents was a key aspect of the effort, including local, open-house-style community meetings organized by the DPU to share information and get feedback about projects *(center, right)*.

QUARTER NOTES

THE BUSINESS OF REMEDIATION

El Paso Corporation takes a pioneering business-case approach to environmental liabilities

As one of the largest independent natural oil and gas producers in the nation, El Paso Corporation (EP) has nearly 800 sites around the country that require environmental remediation. As a public company, EP is also subject to new accounting rules under federal Sarbanes-Oxley legislation that mandate detailed reporting of environmental liabilities on a quarterly basis.

In response, EP has taken a pioneering, business-case approach to environmental remediation—closely managing financial reporting for each site and creating value for the corporation through cost-effective cleanup strategies that reduce environmental liabilities. Brown and Caldwell is one of five alliance partners that helped EP set up and implement the program.

"EP leads the energy industry in applying business management principles to remediation," says BC's Tom Marrou. "With this approach, the company's remediation managers can accurately estimate liabilities, dedicate reserves to cover them and quantify the value they realize quarter by quarter."

Top-down approach

EP's approach uses a range of business tools to manage environmental liabilities and create value. They include:

- business plans for each project that regularly update and track costs, progress, risks and opportunities
- lifecycle analysis of each project's scope, costs, schedule, goals and alternative remedial scenarios, from beginning to end
- performance metrics, focused on remediation end points, that measure and track costs and liabilities reduced

"We've gone from a bottom-up approach based on technical considerations to a top-down approach based on management considerations," explains Marc Ferries, EP's director of Environmental Remediation. "The previous approach was open-ended and led to unpredictable forecasts. The new business approach allows for more consistent results and helps ensure that work conducted makes direct progress toward each project's final closure."

For more information, contact Tom Marrou at (713) 646-1136 or tmarrou@brwncald.com.

Marc Ferries (left), El Paso Corporation's director of Environmental Remediation, works with BC's Tom Marrou to apply business management principles to remediation.

California Teaming

Utilities, stakeholders band together in Los Angeles to fund multibillion-dollar watershed management plan

Public agencies often operate in silos due to their single-purpose enabling legislation. In Los Angeles County, however, utilities and a broad cross-section of stakeholders are achieving a breakthrough in planning approaches.

In a forum facilitated by the L.A. chapter of the American Society of Civil Engineers (ASCE), community leaders in the public and private sectors are working cooperatively to complete an integrated, long-term regional watershed management plan for L.A. County by 2007. The group also aims to develop a voter-approved funding mechanism for the plan by 2008.

Win-win solutions

"If you think about the system as a whole—instead of focusing on narrow, reactive solutions—there are lots of opportunities for creative, win-win approaches," says BC Vice President Michael Drennan, who chairs the collaborative effort.

"For example," he notes, "water quality regulations are driving cities to consider installing expensive, single-purpose facilities to clean up stormwater. Instead, our committee is considering acquiring land along the Los Angeles River to meet multiple objectives, including river restoration, habitat improvement, stormwater quality improvement, groundwater supply and recreation."

Members of the committee, Drennan adds, realize that whatever solution they advance must respond to the public's demands, since a crucial step is getting voter approval of the requested funding measure in 2008.

"Graphics of a restored river," he explains, "will likely win the hearts and minds of the public better than pictures of underground concrete stormwater treatment plants."

Wide-ranging group

Members of the working group include representatives of the Los Angeles Department of Public Works (LADPW); the Metropolitan Water District; the cities of Long Beach, Los Angeles and Santa Monica; the Coalition for Practical Regulation (representing 46 cities in Los Angeles County); Heal the Bay; TreePeople; the Building Industry of Southern California; and the Los Angeles County Sanitation District. Brown and Caldwell is providing technical assistance to the group, including preparation of a near-term and long-term strategic plan.

According to Carl Blum, P.E., a member of the national ASCE Board of Directors and retired deputy director of LADPW, "the challenge in the future is to avoid operating in 'stovepipes' and develop integrated, innovative cost-shared solutions." By jointly developing local funding mechanisms, Drennan adds, "utilities can also avoid competing for increasingly scarce funding at the state level."

For more information, contact Michael Drennan at (310) 309-4331 or mdrennan@brwncald.com.

RISK, REHABILITATION AND REPLACEMENT

A pioneering agency in Orange County, Calif., is taking a new risk-based approach to asset management

When the Orange County Sanitation District (OCSD) in California took a close look at its asset rehabilitation and replacement (R&R) needs for a digester rehabilitation project, it decided to take a "just-in-time" approach—avoiding the costly trap of replacing or refurbishing its assets too early or incurring major repair costs by waiting too long.

By adopting a risk-based approach to R&R decisions, Brown and Caldwell helped OCSD analyze the likelihood and potential consequences of each asset's failure and determine the risk costs to the district in dollar terms. The process, notes Brown and Caldwell Project Manager Pervaiz Anwar, has resulted in significant cost savings for the district through its condition assessment phase.

"OCSD," he adds, "is perhaps the first major agency in the nation to take a quantifiable and repeatable, risk-based approach to making R&R decisions." Most utilities, he explains, traditionally make these decisions by preparing condition assessments of assets, then subjectively estimating their "remaining useful life."

"But there's never a clear indicator of how long a pipe, for example, is going to last, even with the most careful condition assessment," Anwar explains. As a result, utilities can end up replacing assets either too early or too late and spending considerably more money than they should.

Calculated decisions

With a risk-based approach, however, utilities can more accurately calculate the consequences of asset failures in dollar terms—then make smart, cost-efficient decisions about whether or where to deploy R&R funds. The risk-assessment approach focuses on:

- failure frequencies for various assets, based on likely failure modes, as well as the direct and indirect costs related to each mode
- routine O&M, periodic refurbishment and replacement costs
- remaining asset lives based on economic evaluations—comparing an asset's replacement cost against its cumulative risk and O&M costs. Brown and Caldwell has developed a unique model called RULES (Remaining Useful Life Estimation System) that performs this economic analysis.

Avoiding assessments

In some cases, Anwar notes, risk analysis can show that the cost of asset failure is less than the cost of performing a basic condition assessment. OCSD, in fact, was able to save considerable effort and money by avoiding condition assessments that it had already budgeted.

"This systematic, risk-based approach to making capital investment decisions is an excellent example of the strides OCSD is making in balancing the district's social, environmental and economic objectives," states OCSD Project Manager Pam Koester. "It has already saved us money by eliminating unnecessary condition assessments."

For more information, contact Pervaiz Anwar at (714) 689-4812 or panwar@brwncald.com.

PORTLAND ROCKS

The competition for ratepayers' attention has never been more fierce. Recognizing that it's not just *what* you have to say, but *how* you say it, we think Portland's Department of Environmental Services is one agency that tops the charts.

Promoting Portland

High-impact media get messages across for Portland, Oregon's, Bureau of Environmental Services (ES), the agency that treats Portland's wastewater; provides stormwater drainage services; and works to restore native vegetation, improve the quality of water in rivers and streams, and reduce stormwater pollution in Portland watersheds.

Communication is crucial for these wide-ranging missions, and ES educates and informs residents with well-designed, high-quality materials. Through its three communication programs—Public Information, Community Relations/ Public Involvement and Environmental Education —ES uses a bold, multimedia approach to engage residents, teachers and schoolchildren in the city's environmental efforts.

"We want to educate both young people and adults about the work we do at ES and the impact of that work on public health, water quality and the environment," says the agency's Communication Manager, Joan Saroka. "Here in Portland, we put a lot of emphasis on promotion, public education and outreach."

ROMANCING THE RATEPAYER

Projects with tangible community benefits boost support for stormwater measures

Managing urban stormwater runoff is a growing problem, especially for a city like Santa Monica, Calif., that depends on clean surf and beaches for residents, tourism and recreation. The city is also facing stricter local runoff regulations, due to recent amendments to Los Angeles County's municipal stormwater permits and new Total Maximum Daily Load limits for pollutants.

In response, Santa Monica, a city of some 85,000 people, has been proactive in collecting, treating and regulating a portion of its dry-weather urban runoff—constructing in 2000 the Santa Monica Urban Runoff Recycling Facility (SMURRF), the first plant of its kind in the nation. In addition, to meet new requirements for managing wet-weather urban runoff, the city, with help from Brown and Caldwell, has developed a Watershed Management Plan to improve the quality of its urban runoff, reduce urban flooding and increase water conservation, groundwater recharge, recreational opportunities, open space and wildlife and marine habitats. The plan, scheduled for completion over 20 years, includes some $200 million in capital improvement projects throughout the city.

"The beach and the ocean are Santa Monica's most important natural asset," says Craig Perkins, the city's director of Environmental and Public Works Management. "It's essential that we protect it for our residents, visitors and future generations."

Voter-friendly approach

Funding the comprehensive plan, however, presents a challenge. The reality is that California's "taxpayer's revolt" of the last several decades has greatly limited the flexibility of local governments to generate revenues for new programs or services.

Nevertheless, says BC's Michael Drennan, there are encouraging signs. In the past five years, he notes, voters have approved new fees and taxes for clean water, beaches and parks. "Often," he explains, "these measures succeed because they respond directly to desires that the public has expressed in opinion polls."

Consistent with this approach, and to build voter support for new stormwater management improvements, Santa Monica is proposing a voter-friendly strategy—designing solutions that achieve multiple objectives, with tangible community benefits. Stormwater retention and remediation basins, for example, will serve as parks, and runoff management facilities will be integrated with popular creek restoration projects.

These innovative measures, Drennan notes, not only make sense to voters but can also attract multiple funding partners—including city departments, neighboring cities, and regional, state and federal agencies. BC is helping Santa Monica analyze the feasibility and cost of up to 30 of these multipurpose projects throughout the city.

"By designing projects with tangible community benefits that directly respond to local public opinion polls," Drennan says, "we're confident that the city's voters and ratepayers will approve the funding for these improvments."

For more information, contact Michael Drennan at (310) 309-4331 or mdrennan@brwncald.com.

To build voter support for new stormwater management improvements, Santa Monica is designing solutions that achieve multiple objectives with tangible community benefits, such as a potential urban creek restoration project through an existing parking lot (above). The same area circa 1927 (left).

RATE SHOCK RELIEF

A West Coast water utility calms community concerns over rate hikes

Situated on the central California coast near Santa Barbara, the picturesque town of Carpinteria relies on local groundwater and nearby Lake Cachuma for much of its water. In the early 1990s, however, the lake nearly dried up from a persistent drought that withered much of California.

Since then, the Carpinteria Valley Water District (CVWD) has had to supplement locally produced water with contracted supplies from the California Aqueduct. These reliable supplies, however, have created heavy fixed costs for the small, publicly owned district. In addition, residential growth has added substantial new potable water quality requirements and costs for the historically agricultural district. To fund reservoir covers, as well as debt service on its new pipelines, CVWD needed to raise rates significantly for its urban customers.

Strong opposition

But when the district announced the new rates, residents reacted with sticker shock. In letters, phone calls and packed district meetings, some in the community expressed strong opposition to the fee boosts. Residential households in mobile home parks were especially affected by the increase, even though they were connected to multifamily water meters and had no direct relationship or communication with the district.

"The district's board had the authority to implement the new rate structure, but it hadn't adequately communicated the reasons for it to the public," says BC's Grant Hoag, who helped the district quickly design a public outreach program.

"Many in the community," he explains, "were in the dark. All they saw were huge increases in their water bills. The district realized that it had to do a much better job of communicating with all its local residents, and fast."

In response, the water district conducted an aggressive public information and outreach effort, under Hoag's guidance, in about three weeks, including:

- a board resolution codifying the district policies that justified the new rate structure
- communications sessions and policy meetings with district board members
- a cost-of-service analysis to legally validate the equity of the proposed rates
- a new lifeline program for financially vulnerable low-income residents
- articles signed by the board president and district manager for the local newspaper
- a televised presentation on the reasons for the new rates
- and personal responses to letters protesting the proposed rate changes

Turning the tide

The result? "It was a home run," Hoag says, and the rates were successfully enacted.

"With a structured, strategic outreach program," Hoag adds, "CVWD was able to implement the revenue increases it needed for safe and reliable water services in a way that was both politically and financially acceptable to customers."

For more information, contact Grant Hoag at (714) 689-4860 or ghoag@brwncald.com.

BC's Grant Hoag helped the Carpinteria Valley Water District cure customers' sticker shock.

JAMES R. MILLER STEPS IN AS NEW PRESIDENT, COO

James Miller

Brown and Caldwell recently announced that James R. Miller joined the company as president and chief operating officer. A 30-plus-year veteran of the engineering industry, Miller was executive vice president for Europe and Asia/Pacific at URS Corporation in London prior to joining BC. He is based in the company's Walnut Creek, Calif., headquarters.

"Jim brings excellent credentials to Brown and Caldwell," says BC's CEO Craig Goehring, "including a top-line perspective and broad management experience that will help us continue to meet growth objectives and deliver our unique brand of client service."

Miller has held top management positions in other industry firms. He was president and COO of Woodward Clyde prior to its acquisition by URS. Miller was also president of Earth Technology Corporation's (EarthTech) Western Division, which comprised more than 75 percent of the firm's operations at the time.

"It is exciting to be part of a company that is so widely recognized for both technical accomplishment and client-focused service," Miller says. "Taking on a leadership role with Brown and Caldwell held enormous appeal for me, not just for its 10-year record of unabated growth. The caliber of its people and quality of clients speak volumes about the firm and its potential."

PROACTIVE UTILITIES INVEST IN CUSTOMER RELATIONS

Anchorage Water and Wastewater Utility (AWWU) benefits from pristine water sources drawn from local glaciers and snowmelt. An equally important resource, says the municipal agency's Public Affairs Officer Chris Kosinski, is the support and input of local customers.

"We're the citizens' utility here in Anchorage," he says, "and our mission is to provide excellent water and wastewater services. We strive to do that day in and day out and provide residents with opportunities to tell us if we're doing things right."

Outreach in Anchorage

Two years after the utility launched a strong program of organizational improvement, it began focusing intensively on customer outreach, says Brown and Caldwell's Jay Madigan, who worked with BC's Terry Cole to help the utility create its communication strategy.

"AWWU was a self-starter," Madigan says. "The utility reached out to communicate in an organized way, and it has never missed a chance to become better at what it does."

The utility, Kosinski explains, has since developed an active outreach program in the community—manning booths at local home and remodeling shows, visiting all of the city's neighborhood community councils and opening its monthly advisory commission meetings to the public. The agency also asks residents who telephone the utility to answer a "question of the month" about how the AWWU can improve.

Public outreach and information efforts, Kosinski adds, also include school tours of water and wastewater treatment plants and door hangers in neighborhoods near construction sites, featuring contact information for project contractors and construction managers.

"We work closely with customers," he says, "to make sure we're providing service that we're proud of."

Aiming high in South Carolina

In the town of Mount Pleasant, near Charleston, S.C., the local utility has set its sights on having the best possible community outreach program. Mount Pleasant Waterworks even surveyed other agencies around the country to make sure that it was doing the best job that it possibly could.

"We questioned the effectiveness of communications tools we'd been deploying and wanted a third-party to give us an unbiased assessment," says the utility's General Manager, Clay Duffie. Madigan and Cole spearheaded the benchmark survey of other agencies and completed a communications assessment with recommendations.

Many utilities try to improve their public outreach after they've encountered a problem, Madigan notes, "but very few, like Mount Pleasant, do it because they want to go from good to better or better to best." Mount Pleasant staff participated in designing the benchmarking survey, distributing it and analyzing the results.

"It was reassuring," Duffie says, "to learn from the benchmarking effort that other utilities were using many of the same communication methods, and we were able to pick up a few new ideas as well."

"Mount Pleasant Waterworks took communication seriously enough," Madigan says, "to make an investment and create a working relationship with like-minded utilities." As a result of this communication project, he adds, the utility has enhanced its understanding and professional capacity, making a positive, sustainable change in how it does business.

For more information, contact Jay Madigan at (440) 863-2169, jmadigan@brwncald.com or Terry Cole at (770) 673-3697, tcole@brwncald.com.

Facing the Financial Future

Planning for funding, capital and operating needs keeps utilities ahead of the game

To keep up with growing demands for service, the St. Johns County Utilities Department in northeast Florida faced significant infrastructure expansion, upgrade and renewal and replacement costs.

"To successfully fund nearly $100 million in capital needs, we needed a responsible, viable financial strategy," says St. Johns Director of Utilities Bill Young. So before it went to the county board for funding, the utility put together a financial plan that identified its short- and long-term objectives, needs and sources of funding.

"The plan put the utility ahead of the game," says BC's Mike Rocca, who helped develop the financial plan. The county board adopted it and approved the first-phase of the $75 million infrastructure program. Wall Street rating agencies gave the utility favorable underlying ratings of "A2" and "A+," the utility is now moving into the second phase of its expansion, and it's even considering user rate reductions.

Financial and political package

"Utilities generally do a decent job of short-term planning, but most fail to identify or maximize the many different resources available for long-term debt capacity. That's a crucial part of a financial and political package," says Rocca, who has spent nearly three decades helping utilities successfully address their financial, capital and operating needs.

Brown and Caldwell, he adds, can help utilities review and analyze their asset, operations and financial management, as well as community standards, and develop a realistic plan to meet their financial needs.

For more information, contact Mike Rocca at (407) 661-9526 or mrocca@brwncald.com.

Craig Goehring, P.E., CEO

Given a Choice, Customers Will Choose Value

When ratepayers understand and accept the value of water services, utilities will achieve full-cost pricing

Whoa! Had rates for water-utility services only kept pace with the stock prices of water-related companies, my column this issue would likely be on an entirely different topic. An April 15 article in *The Wall Street Journal* notes that water-industry stocks rose 24 percent last year, far outpacing the S&P 500's 11 percent gain for the same period. What's more, over the past five years, water-related stocks surged 113 percent, compared with an overall loss of 17 percent for the S&P.

What are investors seeing that ratepayers aren't?

On the supply-side, a growing population's thirst for a scarce resource reeks of opportunity. And potentially every community in North America must confront the Herculean task of renewing and/or replacing its aging water-related infrastructure. Sharp investors see a market with huge upside that involves waterfalls and outfalls, and just about everything between. Perhaps what investors see is…value.

And what do ratepayers see? Well, not as much as one would hope. North Americans have lived through unparalleled economic and technological growth, yet few stand in awe of the reliability with which clean water flows from their faucets or consider what unseen wonders occur once their toilets flush. If they're old enough, they might recognize that rivers have become cleaner and water better protected, but probably don't fully appreciate their local utility's role in this remarkable feat. And certainly almost none have had to pay the full cost for this aspect of their ever-improving quality of life.

Such blissful ignorance wouldn't be so problematic were it not for these nagging infrastructure and supply problems. But as we in the industry know, the problems are not only very real, the public is largely unaware and avoidance strategies are coming due. Deferring the problems only makes them worse. Privatizing hasn't made them any cheaper. And according to a recent poll of water/wastewater leaders, most don't expect Uncle Sam to foot much of the bill. That leaves it to local ratepayers, whose utility bills, the WSJ says, might just triple in the next three to five years.

That survey mentioned above was conducted for Malcom Pirnie in 2004 and involved 71 water/wastewater leaders from 21 states. Nearly 90 percent said ratepayers should pay for their local water utilities' financial needs. Asked how that could be achieved, 98 percent believed more emphasis was needed on communicating the value of water to the public, customers, regulators and local elected and appointed officials.

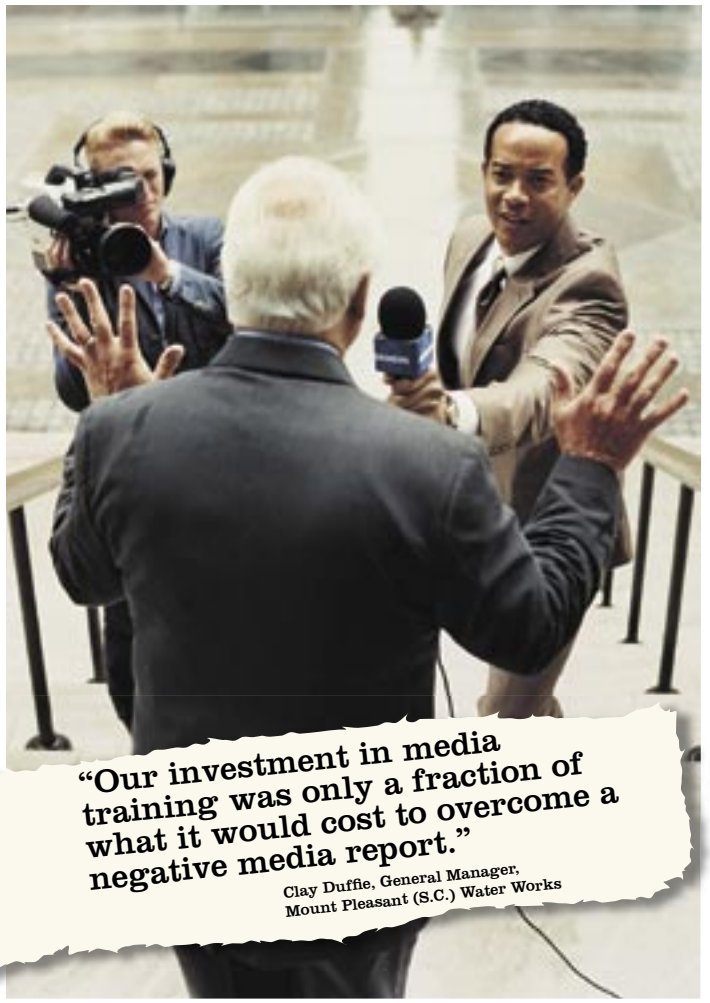
Value of water

In his article "The Value of Water" in the April *Journal AWWA,* Bob Raucher concurs: "As a 'silent utility', water agencies have become invisible and the services they provide are often taken for granted. Because customers and governing officials do not often think systematically about the value of water or water-related services, they tend to focus on the more immediate, visible cost. It is up to the water utility professional to better understand water's value and to effectively communicate that value to the public."

With this issue of *Quarterly* we set out to demonstrate how clients are making the value connection with customers at many different levels, and how Brown and Caldwell is helping. Progressive utilities are making the value proposition clearer, which is not just turning on the P.R. machine, but establishing relationships with customers that offer real choice. Innovator Dave Modeer (see page 2) of Tucson Water showed his customers value by drawing them into the cost vs. quality decisions of their drinking water. Gwinnett County (page 6) created an army of project advocates by committing to a communications strategy that treated customers in affected neighborhoods like partners.

As recorded in this issue, ratepayers, like investors, will respond to compelling choice in their water and wastewater services. Presenting choices and making the connection on value of service will have ratepayers and investors seeing the same thing–*value.* And with value comes full-cost pricing.

MAKE THE MOST OF THE MIKE



Media Training Services

Be prepared for your media closeup! Brown and Caldwell offers expert media training, conducted by veteran television and newspaper reporters who specialize in utility communications.

We help water resources agencies craft and deliver compelling and credible messages to the media. Our trainers understand the high standards to which public utilities are held and teach staff to effectively communicate with customers through the media.

Through lively, interactive sessions, we train people to:

- Anticipate reporters' questions and respond effectively
- Use appearance and non-verbal cues to build credibility
- "Stay on message" and make sure your points are heard

Whether it's training key staff to talk with the media, or teaching front line employees to recognize media inquires and smoothly direct them to the right spokespeople, we tailor each session to fit your needs.

Improve your agency's media savvy. Contact Terry Cole at (770) 673-3697 or tcole@brwncald.com

BROWN AND CALDWELL

P.O. BOX 8045
WALNUT CREEK,
CALIFORNIA 94596-1220

ADDRESS SERVICE REQUESTED