

A CALL TO ACTION: MAKING STRATEGIC CHOICES
IN FINANCE, COMMUNICATION, & ENERGY

A Keynote Address

By

G. Tracy Mehan, III
Principal
The Cadmus Group, Inc.
gmehan@cadmusgroup.com

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Good morning. Thank you for the opportunity to offer the keynote address to this important conference on sustainable infrastructure, an urgent topic given the pressing need to close the nation's infrastructure investment gap.

I want to offer my congratulations to the EPA regional offices and the Commission on hosting this outstanding event. And I thank them for this opportunity to speak to this very impressive gathering of water professionals.

In the time available, I will share my thoughts on strategies for financing water infrastructure, communicating with key constituencies who ultimately control such financing, and managing energy costs which are increasingly impacting utility budgets overall.

Who pays for the pipes?

Whether or not you embrace the figures contained in EPA's 2002 Gap Report (www.epa.gov/owm/gapreport.pdf), the aging of our water systems, combined with continued economic growth and a steady rise in population, guarantee that the financial challenges facing water and wastewater utilities are huge by any measure.

Add to this the rise of China and India, with their increasing need for materials and energy, and you have a recipe for greater pressure on both capital and O&M budgets in the utility sector. This is a present reality, not a forecast.

A water utility consultant told me of a nun who came to a public hearing on a proposed rate increase and objected that, since God gave us the water, the people should not have to pay for it. You might call this the sacramental view of water infrastructure financing.

The consultant responded: “Sister, God did give us the water, but who is going to pay for the pipes, the pumps, and the water treatment works?”

This vignette illustrates the challenges inherent in financing and sustaining water infrastructure in this country. How do water and wastewater utility managers communicate the value of the services and assets under their care to both the public as ratepayers and the political leaders who control utility budgets?

Over four years ago EPA unveiled its Four Pillars of Sustainable Infrastructure (www.epa.gov/waterinfrastructure). Its aim was a sustainable regime of infrastructure investment and management which looked at water and wastewater facilities in a broader context: the demand side as well as the supply side, the watershed as well as the treatment works, and the responsibilities of ratepayers themselves as opposed to non-user taxpayers.

The Four Pillars consisted of Better Management, Full-Cost Pricing, Efficient Water Use, and Watershed Approaches to Protection.

First, get a million dollars.

Theoretically, you could build the entire house of water infrastructure on just one pillar: full-cost pricing, arguably the first among equals. While this is a fine idea, it may remind you of the old Steve Martin joke on “How to make a million dollars without paying taxes. First, get a million dollars.”

In fact, the United States has some of the lowest water rates of any of the free-market democracies in the OECD. The average American household pays more for soft drinks (\$707) than for water and wastewater charges (\$474) on annual basis (as calculated from 2001 figures).

An August 2002 GAO report (www.gao.gov/new.items/d02764.pdf) on its survey of several thousand drinking water and wastewater utilities indicated that 29 percent and 41 percent, respectively, were not generating enough revenue from user rates and other local revenue sources to cover their full cost of service. Roughly one-third of the utilities, therefore, deferred maintenance because of insufficient funding, had 20 percent or more of their pipelines nearing the end of their useful life, and lacked basic plans for managing their capital assets.

The Congressional Budget Office (CBO) claimed that, even if you paid for the entire infrastructure investment gap through rate increases, the American household would be

paying less than 1 percent of average household income on water and wastewater charges.

Most of our citizens are served by publicly owned systems. So a pricing decision is essentially a political decision which is perceived as the equivalent of a tax. For political leaders it is a root canal.

No doubt, the political winds change. There may be more federal or state financial support for water utilities, or there may be less. But even under the rosiest scenario, it is unlikely to be enough.

The federal budget is being consumed by entitlements—Medicare, Medicaid, and Social Security—payment on the national debt, and the War on Terror. According to GAO the unfunded liabilities (“implicit exposures”) associated with future Medicare and Social Security benefits increased 197 percent between 2000 and 2006, that is from \$13 trillion to \$38.8 trillion. A trillion here, a trillion there, soon you are talking about real money. When the late Illinois Senator Everett Dirksen first used that line, he was speaking in terms of millions, not trillions, of dollars.

GAO’s simulations show that demographic trends and rising health costs yield a structural deficit which would require either cutting total federal spending by 60 percent, or raising federal taxes to two (2) times today’s levels, to balance the budget in 2040 if nothing changes.

Thus, water and wastewater utilities will have to shape their own financial futures with respect to overcoming the infrastructure investment gap. Necessity and prudence dictate that they look to their own resources to do so.

Again, GAO found that utilities lacked basic plans for managing their capital assets. As we begin this dialogue on sustainable infrastructure, we need to enquire as to why this condition exists. Is there a systemic weakness in municipal budgeting? Are local governments focused on covering the immediate needs of next year's budget to the exclusion of long-term planning?

Do utilities appreciate that a long-term capital plan can save money in the long run?

Are there regulatory constraints on the creation of stabilization funds?

Have utilities developed a habit of paying for capital improvements out of current revenue?

“What we’ve got here is...failure to communicate.”

We could point to many reasons for the current state of our under-financed, aging infrastructure. From my perspective one critical failure has been in the realm of strategic communications, civic education, and, to use a new term, “social marketing.”

That famous line of Strother Martin, Jr., in *Cool Hand Luke* (1967) comes to mind:

“What we’ve got here is...failure to communicate.”

One of the classic examples of market failure is “imperfect information.” I think this applies to the political marketplace as much as the economic one. To paraphrase Yogi Berra, if the market were perfect, it wouldn’t exist. Still, better, more robust information can be made available to ratepayers and political leaders with a view toward increasing their understanding of the link between rates and the long-term financial sustainability of their water or wastewater systems.

It is necessary that water managers incorporate ongoing strategic communications into their toolkit along with the hard skills such as engineering, accounting, and law. Call it marketing, public relations, or civic education—they must educate ratepayers as to the value of the assets at risk and the benefits of investing in them over time.

Today, I expect we will hear about some very successful cases where utilities strategically, systematically, and patiently educated their communities and brought them

to a higher level of knowledge and understanding. We may also hear about lessons learned from unsuccessful efforts.

From my perspective the recent publication of *Avoiding Rate Shock: Making the Case for Water Rates* (April 2004) by the American Water Works Association (AWWA) was a real breakthrough. On its title page is a very telling quote from Archibald McLeish: “There is only one thing more painful than learning from experience, and that is not learning from experience.” This might be our motto over the next day and a half!

Avoiding Rate Shock drew upon research, case studies, and in-depth interviews with stakeholders, along with lessons learned from the individual experiences of the project team members. It also drew on the knowledge and expertise of utility staff from nine geographically and demographically diverse organizations. Among its key findings:

“A consistent, structured communications outreach program builds the credibility necessary to support customer-utility relationships and, therefore, rate increases.”

The AWWA study also offers practical advice in terms of billing practices and rate structure options, which can affect customer reactions and acceptance of rate increases.

Appended to *Avoiding Rate Shock* is a sobering article by James Wiemken, director of Standard & Poor’s Credit Market Services, in which he discusses the credit implications of rate structures and rate setting for water and sewer utilities.

“A utility’s ability to implement policies and procedures which garner the support of ratepayers for the additional revenues required to support these needs will become more important to the [credit] rating,” says Mr. Wiemken. “Such policies should encourage both rate stability and transparency, and should minimize the likelihood of political influence that sacrifices the utility’s long-term health for temporary rate freezes.”

Since making these observations in 2004, Mr. Wiemken’s firm has also emphasized that credit rating agencies have moved beyond point-in-time analysis of current debt service coverage since, theoretically, a utility could be managing a small amount of debt while its infrastructure is a mess. “Ratings increasingly reflect the extent of a utility’s ability to implement strategies and policies that address its unique characteristics and allow it to finance needed improvements.”

Mr. Wiemken speaks the truth, but we also must recognize that you cannot take the politics out of a political, i.e., governmental, institution. Utility managers must respectfully engage political leaders and their constituents to inform them of the technical and financial issues relevant to the long-term health of the community and its precious underground assets.

Another positive sign that the water and wastewater sector is recognizing the importance of civic education is the Water Environment Federation’s (WEF) new public outreach program, Water Is Life, and Infrastructure Makes It Happen™

(www.waterislife.net/about/index.html). We are fortunate to have representatives from WEF here for the conference. They have kindly set up an information desk to provide more information on their efforts to provide tools, case studies, a website, and a forum for WEF members to communicate effectively with their customers on the value of the water infrastructure upon which they depend.

A renewed focus on energy in the water sector.

When EPA released its Four Pillars of Sustainable Infrastructure, energy management was not emphasized at the time.

You could say that energy management and efficiency were implicit in the pillars for Better Management and Water Efficiency. It is time to make them explicit. The global pressures on energy prices, not to mention environmental concerns, have moved this matter to the top of the industry's agenda. It seems that every other issue of WEF's Water Environment & Technology magazine has an article on energy management at water and wastewater utilities. I am not a member of AWWA, but I bet the same is also true with its journal.

The cover story on the current issue of Water & Wastes Digest (www.wwdmag.com) is entitled, "Is Your Treatment Plant Due for an Energy Audit?" Its author, Patrick Clifford, says that approximately 3 percent of the total electricity generated by the electric power industry in the U.S. is consumed by the water and wastewater industry.

Clifford, a senior associate at CTE Engineers, also claims that energy consumption at water and wastewater facilities is estimated to grow by over 20 percent over the next 15 years.

Given the significance of energy as a cost factor, as well as the self-evident nexus between water and energy efficiency, this is an important topic for this conference to consider as an element of sustainability in the water sector.

EPA recognized the need to emphasize energy efficiency in the water sector by establishing a new focus group as part of ENERGY STAR, its flagship voluntary program (http://energystar.gov/index.cfm?c=government.wastewater_focus).

According to EPA drinking water and wastewater systems spend about \$4 billion a year on energy to pump, treat, deliver, collect, and clean water. The energy costs to run drinking water and wastewater systems can represent as much as one-third of a municipality's energy bill. The potential for cost savings is significant.

During this conference we can explore the numerous opportunities for saving money while saving the planet through a myriad of energy-efficient steps. Replacing old pumps, saving water, or switching to renewable energy all are fair game in the quest for a sustainable operation.

A utility manager might look for chances to partner with other utilities to buy energy in bulk, signing contracts for low-cost energy in off-peak hours. He or she may be able to implement changes in treatment design if capital investments are on the horizon.

Water and wastewater systems allocate about 40 percent of their revenue to debt services, 60 percent to operating costs. Operating costs are typically divided into three roughly equal parts: personnel, materials, and energy. So energy savings can substantially reduce operating costs.

Given the continued rise in energy prices, alternative or renewable energy sources will become more popular. Writing in the July 2005 issue of *Water Environment & Technology* (“Power Plays: The rationale behind conscientious energy management”), Joe Cantwell and Kristi Kezar of Science Applications International Corporation point out that, for the wastewater industry, use of biogas is becoming more common simply because it is a resource readily available onsite.

Biogas is produced by decomposition of matter in anaerobic digestion and can be substituted for natural gas in space heating and process heating applications.

Sound energy management yields savings which go straight to the bottom line. These savings represent “found money” for those operations which approach the issue in a systematic way. The sponsors and many of the participants of this conference look

forward to hearing about efforts to build energy efficiency into a vision of sustainable water systems.

Finance, communication, & energy—pulling it all together.

The theme of sustainable water and wastewater infrastructure is a broad one. No single conference can possibly exhaust such a fertile topic. Therefore, the conference will try to focus the dialogue on crucial, strategic themes involving finance, communication, and energy. The first is a perennial challenge. The second relates to a relatively new tool in the utility manager's kit. The third looms large among the current pressures squeezing utility budgets.

These are different but closely related themes representing significant challenges calling upon the experience, expertise, and creativity of all of us during this conference. I trust the results will be worth our efforts.

Thank you for your attention.

G. Tracy Mehan, III, was Assistant Administrator for Water at the U.S. Environmental Protection Agency, 2001-2003. He has been a Principal with The Cadmus Group, Inc., since 2004.

