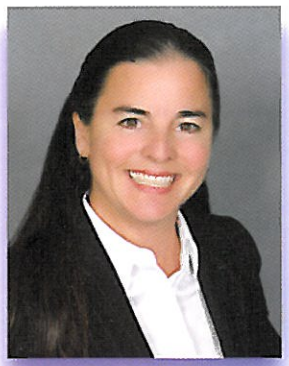
Mayors Water Council

Newsletter of the Mayors Water Council of The United States Conference of Mayors

SUMMER/FALL 2010

Message from the Co-Chairs



Pleasanton (CA) Mayor Jennifer Hosterman

Schenectady (NY) Mayor Brian U. Stratton

Mayoral interest in public water and wastewater issues is growing. Eight water-related resolutions were considered and adopted this June at the 78th Annual Meeting of The U.S. Conference of Mayors. The single most pronounced theme common to all of these new water policies is the desire of Mayors to impose cost-efficiencies in an area that has burgeoned with public investment over the last five decades. Not surprising since required spending in this area far exceeds inflation, and expected future cost requirements are daunting at a time when Main Street is still reeling from the Great Recession. Still, cities are committed to the goals of the Clean Water Act and the Safe Drinking Water Act. The newly adopted policies call for smarter service and infrastructure management at the local level; and they call for more sophisticated planning and partnering with federal agencies. Congress, however, remains silent in this debate, apparently comfortable with expanding clean water goals that will be paid for by local governments, or happy to authorize new federal financial assistance that they likely suspect will never be appropriated.

A critical, and glaringly absent, element necessary to achieve clean water goals is a national coordinated strategy on water that involves local, state and federal government working together, and a dialogue between local elected officials and Congress. Rather than continuing to struggle with top-down federal mandates that are increasingly unaffordable, Congressional consultation could provide the needed leadership to prioritize goals and better match mandates to the reality of local financing burdens. The end-game goals enjoy a general consensus among federal and local government - fishable and swimmable waters, safe drinking water, floodplain management to protect people, property and natural resources, etc. But the urgency driving the federal appetite to push through rules and regulations to cure all water problems in the short-run has painful affordability implications for: local government who must take on significant long-term debt to finance the necessary infrastructure; ever-increasing operations and maintenance costs that burden annual budgets; and multiple rate increases borne by fixed income, low income and unemployed citizens. Are we entering a period where the federally imposed requirements are creating a social justice dilemma for financially struggling cities and their citizens? Is it time to start questioning whether the marginal public benefits of social resources devoted to water and wastewater improvement yield lower public benefits than could be achieved by investing in other services and infrastructure? There are no easy answers to these questions but they deserve to be addressed. The days of just throwing money at the problem are over for now.

Mayors are, however, still optimistic about what can be accomplished. New attitudes on implementing current enforcement policy regarding Combined Sewer Overflows (a costly federal mandate) can provide local financial relief without sacrificing clean water goals. The Conference of Mayors is pursuing an expanded dialogue with the US EPA to find cost-efficient solutions to achieve compliance. The current federal enforcement attitude in the EPA Regional Offices tends to favor dictating solutions that require cities to step up local investment according to what is calculated to be affordable. This attitude should yield to requiring local investment in long term control plans that achieve compliance with the law. The difference between calculated affordability and actual compliance costs is clearly ripe for the discussion of marginal public benefits. The current policy guidance on this matter does not necessarily require that cities spend up to what

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OPINION

Procurement Practices that Impede Rehabilitation of Underground Water Infrastructure

By Bruce Hollands

Our country's underground infrastructure is at a crossroads. It's corroding at an alarming rate and mayors have the opportunity to take an active role in reforming procurement practices to ensure adoption of sustainable and cost-effective materials and solutions.

Over the next twenty years, municipalities will spend $3 to $5 trillion to upgrade water and wastewater systems, according to Schenectady (NY) Mayor Brian Stratton. Renewing water and wastewater lines alone, according to other estimates, will require between $660 billion and $1.1 trillion over the same period. Speaking at a recent conference on underground infrastructure, Mayor Stratton pointed to the results of a Mayors Water Council report on the nature and extent of the problem. U.S. water and wastewater infrastructure, the study noted, lacks "a coordinated and integrated national strategy."

Accordingly, any comprehensive action plan must urge the reform of municipal procurement practices that limit competition, shackle innovation and increase costs. A major impediment is the stubborn local attitude that traditional bidding methods should not be challenged.

Changing Outdated Procurement

Every mayor and local elected official has the ability, and perhaps the obligation, to review the local procurement practices of their utility staff. This provides an excellent opportunity to ensure that bidding is aligned with modern asset management standards, and considers life-cycle costs and performance of materials in all public projects. Current procurement methods, however, are costly and prevent informed decisions from being made because bids are often closed to qualified products. Opening them, according to experts, will save municipalities between 10 to 20 percent on all goods and services purchased.

The water and wastewater sector is a case in point. Pipe is the largest component of a water utility's assets and seriously impacts operations and maintenance costs, which are spiralling out of control, increasing by 6 per cent above inflation yearly. So, the performance of a utility's pipe materials is critical to holding the line on costs. "The traditional habit of using one or two pipe materials exclusively, "says Mayor Stratton, "is no longer satisfactory. Local officials need to compare all proven pipe materials."

Unfortunately, utility operators will often exclude widely used materials, saying they need to further "study" them, or relying on myths to avoid breaking old habits. The corrosion eating away at our nation's underground infrastructure demands that all municipalities renew their practices in this area. And beginning this process will require fair bidding and openness to alternative and proven pipe materials.

The Corrosion Crisis: Old Technology versus Sustainable Options

Corrosion is the leading cause of the water-main break epidemic in North America, estimated at some 255,000 breaks annually. Moreover, according to a 2002 congressional study, it's a drag on the economy, costing U.S. drinking water and wastewater systems over $50.7 billion annually, or more than $1 trillion dollars over the next twenty years. Despite these huge expenses, however, municipal utility operators have largely failed to consider the cost-benefits of using non-corroding pipe materials.

Today's corrosion crisis is due to the materials used in America's underground pipe networks over the last 100 years. At first, cast iron was used, with ductile iron gradually replacing it as the material of choice. Both now suffer from the ravages of corrosion. Moreover, the burden of old technology materials is not limited to the cost of repairing and replacing failed pipelines. It includes the cost of losing treated water from leaking systems. All told, leaking pipes lose some 2.6 trillion gallons of drinking water every year, or 17 percent of all water pumped in the United States. This represents $4.1 billion in wasted electricity annually.

Sustainable and Corrosion-Proof

The solution to these problems begins with sustainability, durability and corrosion resistance, and this is why municipalities must actively consider including alternative materials such as PVC in their bidding processes. Increased durability means fewer leaks, better water conservation and lower costs.

With over two million miles in service, PVC has been celebrated by Engineering News Record as one of the top 20 engineering advancements of the last 125 years. A study by the American Water Works Association Research Foundation recently quantified

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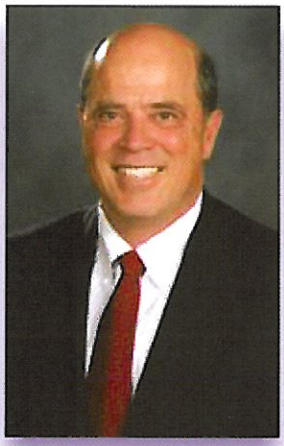
Plan Now for Water Infrastructure Future

By Lake Oswego (OR) Mayor Jack Hoffman

When I talk with other mayors, a reoccurring concern is our infrastructure. Safe and reliable infrastructure is one of many components of a great community. Our city, like all the cities in our region and like tens of thousands of cities across our nation, has aging infrastructure. If we don't responsibly invest and maintain it, we risk potential loss of property or life that could financially burden our citizens. Clean water, safe sewerage systems and good roads are just part of our paramount responsibilities. This year, Lake Oswego celebrates its centennial. For me, this has not only been a time to contemplate how far we've come with our infrastructure, but just how much attention we need to continue to give to it in order to ensure that our investments last.

The City of Lake Oswego is located in northwest Oregon just eight miles south of Portland with some 35,000 residents and a very attractive 405-acre lake. One of the biggest modern day challenges we have tackled in Lake Oswego is the replacement of our sewer interceptor system. It's old, failing and undersized. More than 90 percent of the interceptor pipe lies within Oswego Lake, its bays, and canals. Originally designed to serve 4,500 acres, the Lake Oswego Interceptor Sewer system (LOIS) today serves an area of 5,500 acres. When too much rainwater enters the sewer during periods of sustained, heavy rains, the interceptor system becomes surcharged and backs up, spilling untreated wastewater through manholes at various locations adjacent to and within Oswego Lake. Additionally, the system's steel and timber pile supports are corroding and are at risk of collapse in a moderate seismic event. If this were to occur, millions of gallons of untreated wastewater would enter the lake and millions of gallons of lake water would drain downstream to the treatment plant, overwhelming its capacity.



Lake Oswego (OR) Mayor Jack Hoffman

A series of public hearings and community briefings were held in 2007 on replacement alternatives. As a result, the City Council accepted the City Engineer's recommendation to replace the system with a combination of pile-supported pipe and a submerged, buoyant, gravity-flow pipeline.

When construction of this project began in Octo-

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the life expectancy of PVC pipe at more than 110 years – making it excellent for long-term asset management and sustainability. Furthermore, PVC pipe is more efficient to manufacture, taking four times less energy to make than concrete pressure pipe, and half that used for iron pipe. PVC's light weight reduces transportation and installation costs, yielding additional greenhouse gas reductions. It is also totally recyclable, though most of it has yet to enter the recycling stream given its great durability.

For municipal officials, PVC's most attractive feature is perhaps its cost-effectiveness. Annual savings derived from PVC pipe now used in sanitary systems throughout the U.S. are estimated at $270 million. Converting the entire sanitary sewer system to PVC could save upwards of $800 million a year.

A Municipal Success Story

While many localities have yet to take full advantage of PVC pipe it is, nevertheless, a success story retold countless times in municipalities throughout the U.S. Myrtle Beach, SC, for instance, has used PVC in its water system since the 1980s. Today, over 50 percent of its pipe network is PVC – and it's increasing annually as cast iron and galvanized pipe are being replaced. Similar water infrastructure renewal programs, where iron pipe is being replaced with PVC pipe, are also taking place in cities like San Diego, CA, Fargo, ND, and San Antonio, TX, to name a few.

Solving our nation's underground corrosion crisis will require openness to alternative and more resilient pipe materials such as PVC. And mayors should take the lead from Myrtle Beach and other communities by insisting their utility officials make it part of a competitive bidding process.

Bruce Hollands is Executive Director of the Uni-Bell PVC Pipe Association, a non-profit organization which serves the engineering, regulatory, public health and standardization communities. He can be reached at bhollands@uni-bell.org