

Compiled by WWD Associate Editor Elizabeth Lisican



Hassan Ali

Intelligent Infrastructure

New metering technologies aim to improve operations

As more water utilities deploy advanced metering infrastructure (AMI), there is an increasing acceptance of these systems, according to Hassan Ali, general manager and vice president of Mueller Systems, which recently released an AMI system that uses fire hydrants to communicate water usage data. Ali discussed how innovation is crucial for technology providers in the effort to create a sound investment for its users.

Elizabeth Lisican: What are some of the biggest trends right now in advanced metering technologies?

Hassan Ali: What we're seeing is a trend toward a lot more data—data that municipalities can use to improve their operational processes and their operational effectiveness to improve their sustainability for water, address sustainability issues for water and also engage customers a lot, in the effort of customer awareness to initiate sustainability. So, we see the technology moving from AMR or drive-by more toward AMI or smart metering, which allows for a lot more data to improve operations.

More technologies are now getting cost-effective, where we can provide 24-hour monitoring and basically turn the infrastructure into intelligent infrastructure. It can monitor itself; it can report when there are issues and allow municipalities to deploy their resources exactly where they are needed and solve them. We can create information on consumption on a more minute basis—hourly basis, subhourly basis—so that the consumers can be a part of any sustainability or conservation issues.

Lisican: How are the new technologies being deployed?

Ali: One of the challenges for deploying an infrastructure or for communication has been that water utilities don't own electric infrastructure. Most of the wireless networks require electric infrastructure, whether it be electric poles, light poles or some way to deploy it at a high elevation and have electric power connected to it to operate it, which becomes pretty costly to manage.

So, if you could use your current

infrastructure and add onto it communication technology so that you're using your own infrastructure to create a wireless network upon which you can obtain all the benefits of AMI, that would be an ideal condition.

Lisican: What role will these types of metering technologies play in the future, and why will it be important?

Ali: The issues municipalities are facing are very real. They have infrastructure that is aging, and there are a lot of investments required to upgrade the infrastructure. Getting the most out of the infrastructure and really targeting their investment dollars toward upgrading the infrastructure exactly where it's needed is a big challenge for municipalities, which will increase as time goes on because of the aging of the infrastructure.

Consumers' expectations are a lot higher around the service and the information that they receive from any provider now. One of the surveys that Oracle performed of consumers and their expectations of municipalities for water indicated that 70% of consumers know that they need to conserve water but don't have enough information to do that.

Lisican: How are municipalities responding to new AMI technologies? Are they starting to embrace them?

Ali: I think municipalities are understanding the issues more and more. As they start deploying AMI, some of them are publishing the results of the benefits they are getting, so the acceptance of the benefits are increasing and that would make the business cases easier. The industry is also focused on leveraging the AMI and adding more applications that provide added benefits. **WWD**

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For more information, write in 1112 on this issue's Reader Service Card or visit www.wwdmag.com/lm.cfm/wd081012.

Austin to Rehab Sewer Pipeline

The city of Austin, Texas, has awarded a three-year term contract to Insituform Technologies to rehabilitate sewer pipelines. The contract is valued at up to \$11.7 million and includes using cured-in-place pipe in the city.



This term contract plays a significant and strategic role in restoring the structural integrity of the city's collection system while reducing inflow and infiltration and eliminating sanitary sewer overflows.

Nogales Wastewater Treatment Project Honored

The city of Nogales, Arizona's International Wastewater



Treatment Facility project was recently named one of the Public Works Projects of the Year by the American Public Works Assn. Awarded in the Environment category, with cost between \$25 million and \$75 million, the city and the International Boundary and Water Commission initiated a coordinated public works response following a court order for failure of the existing lagoon-based facility to meet effluent requirements for the Santa Cruz River discharge.

Plant Upgrade Mitigates Fish Gender-Bending

Male fish that used to be feminized after chemicals, such as the pharmaceutical ethinylestradiol, made it through the Boulder, Colo., Wastewater Treatment Plant and into Boulder Creek, are taking longer to become feminized after a plant upgrade to an activated sludge process, according to a new study.



David Norris, Ph.D., professor at the University of Colorado at Boulder, and his team reported in 2006 that native male fish in Boulder Creek decreased in numbers with respect to females and that numerous intersex fish were found downstream of the wastewater treatment plant.

New Mexico Town Turns to Indirect Potable Water Reuse

A New Mexico town has chosen Miox Corp. to head a new indirect potable water reuse project,



which would incorporate pipe-to-pipe recycling of wastewater for dishwashing, clothes washing, irrigation, street cleaning, drinking and more.

After a drought in 2006 left the small desert community of Cloudcroft, N.M., completely without water, it decided to move away from its traditional treatment method to a fully reclaimed, recycled "zero-liquid-discharge" system.

Groups Urge Congressional Hearings on Water Bill

Groups that have been battling to defeat Minnesota Congressman Jim

Oberstar's federal water bill since 2007 are calling for hearings and open meetings on what they consider to be the largest federal power grab in the nation's history, according to the American Land Rights Assn.



H.R. 5088 was introduced by Oberstar during Earth Week to replace his previous version, the Clean Water Restoration Act.

Hong Kong Campus Design Wins Award

A design that aimed to preserve the heritage



and natural environment of the campus grounds at the University of Hong Kong (HKU) won in the Design category of the 2010 International Water Assn.'s Project Innovation Awards for the East Asia region. Prompted by the Water Supplies Department's initiative of building a service reservoir inside a cavern, Black & Veatch's design fashioned a cavern to house two service reservoirs as part of HKU's Centennial Campus expansion.

WWD Expresses Appreciation to Troops

The staff of WWD collects books, DVDs and useful everyday items to send thank-you packages to U.S. troops. Those who have someone serving in Iraq or Afghanistan are encouraged to send the soldier's name and shipping information, and we will send them a package from their appreciative fans at WWD. E-mail the soldier's name and shipping address to [Sandi Stevenson at sstevenson@sgcmail.com](mailto:sstevenson@sgcmail.com).



Specialist Corey Burnett, pictured, is a recent recipient of a "We Care" package. Burnett is stationed in Kuwait.

Networking News

- Weidong Bi was named vice president of Tri-Tech.
- Chandler Johnson joined World Water Works as chief technology officer.
- David Elve was named vice president of industry solutions with Sensus.

Upcoming Events

Utilimetrics Autovation 2010

Sept. 12 to 15, 2010

Austin, TX

www.utilimetrics.org/autovation.aspx

PumpTec

Sept. 20 to 21, 2010

Atlanta, GA

www.pumpconference.com

WaterReuse Symposium

Sept. 12 to 15, 2010

Washington, DC

www.watereuse.org **WWD**