

American Water Intelligence

Market-Leading Analysis of the American Water Industry

REGULATION

Watching the watchers

AWI examines the facilities placed on the EPA's Clean Water Act "Watch List" since 2006 and determines what being on the list means for various industries. **PG8**

MARKET ANALYSIS

Stable condition

The pharmaceutical water and wastewater treatment market is steadily expanding, driven in part by reuse. Major players discuss the prospects for new market entrants. **PG12**

PROFILE

Walking the line

The Texas Commission on Environmental Quality plays by the rules to balance the interests of water utilities and ratepayers. **PG22**

ANALYSIS AND COMMENTARY

Activated carbon gets a boost

There is optimism in the activated carbon market now that the EPA no longer condones the use of chloramine to comply with its Stage 2 Disinfectants and Disinfection By-Products rule. **PG16**

M3 Capital Partners profile

The Chicago investment firm is hoping a new twist on the design-build-operate-finance procurement model will turn routine water and wastewater projects into long-term revenue streams. **PG20**

INSIGHT

The water industry's "Super Bowl"

Water and wastewater suppliers are finding it increasingly difficult to exhibit at both ACE and WEFTEC. Would a combined "mega-show" solve the problem? **PG10**

INSIGHT

Bureau bottleneck

A long backlog is stalling progress in the Bureau of Reclamation's popular Title XVI water reuse and reclamation program. **PG14**

TRACKER UPDATES

Sacramento River WTP Expansion, CA: Bids due July 19 for this \$150 million project.

Irving, Dallas, Elm Fork Relief Interceptor, TX Bids will be advertised in August for this \$40 million project.

Turn to page 28 for this month's tracker: \$161.8 million in new projects and \$4.1 billion in updates.

Alexander Miles

With water so critically related to the key issues of our time, it is time that we stop defining the market too narrowly as companies primarily involved in the sourcing, treatment and delivery of water. **PG18**

Judith Herschell

The use of smart data systems for water networks is a hot topic in the industry. The information network is innovative and moving swiftly in an industry that has long-standing staid business practices. **PG19**

THE WATER NEXUS



Alexander Miles, a managing partner at Kingfisher Capital, explores new, innovative and contrarian ways of evaluating water as an investment.

Defining the water market: A fresh perspective

AWI recently invited me to write a regular column that would explore the notion of redefining the water market. This month's installment is the first in a series that seeks to challenge the way we think about water and the models that support its efficient, equitable and sustainable use.

Many of us are well versed in alarming water facts that serve to shock neophytes into the dramatic realization of an existing and worsening global water challenge. Over two and a half billion people lack access to proper sanitation and the amount of water polluted each year equals the amount consumed. While these data make for chilling headlines, many investors still find the market ill-defined and void of catalysts. Others recognize the tragedy for the global poor but remain relatively sanguine on their own relationship with water: the tap works, and water is cheap.

A bit of history can often inform our present. This year's Global Water Summit presented a timely opportunity to revisit the world's first mega-city, Rome. Some 2,000 years ago, the city was home to a sophisticated populace and was not so different from metropolises today. Its 11 active aqueducts traversed roughly 300 miles, serving over a million citizens. The Colosseum provided terra cotta ticketholders access to exciting entertainment accompanied by food, refreshments and public toilets. Having invented concrete (though the Chinese might argue this fact), the Romans constructed a temple to all gods, the Pantheon, which remains the largest unsupported concrete dome in the world.

Yet the ultimate fall of Rome provides a cautionary tale and undeniable ironies with respect to circumstances our Western world finds itself in today. As the empire collapsed under its own weight, the city's precious aqueducts were destroyed and fell into disrepair. With no means of bringing water in and waste out, the city rapidly succumbed to disease and decay as the population dwindled by two-thirds in a few short years.

To understand the global water market better, investors and policymakers may gain insights from an approach I developed over the past decade called Gravity Investing, which seeks to identify themes in the global economy that are leading to highly predictable long-term outcomes. This approach views water as deeply interconnected with and inseparable from other large issues. Some examples of key themes that will drive capital allocation decisions in the future are the G7 to G20 transition, healthcare innovation and synthetic life, urban migration, efficient resource lifecycle management and the hard debt ceiling on most western economies. Interestingly, these seemingly disparate trends are all embedded in the water nexus. Emerging middle-class consumption trends will require greater quantities of food, energy and consumer goods while creat-

ing more waste and pollution. A wealthy, aging demographic in Western economies will drive life-prolonging innovations, creating cost-efficient by-products to address treatable and preventable diseases at the bottom of the pyramid.

As more people "migrate to the aqueduct," they will require larger investments in energy, transportation, water and waste infrastructure. For now, the era of cheap energy and water is over, and users will increasingly seek to maximize efficiencies in procurement, utilization and disposal within a resource-constrained, carbon-capped world. Debt-laden governments unable to finance large public works projects will increasingly turn to private investors, who will in turn demand greater returns on their investments.

With water so critically related to the key issues of our time, it is imperative that we stop defining the market narrowly as companies primarily involved in the sourcing, treatment and delivery of water. Imagine limiting the discussion of "energy as an investment" to E&P, pipeline and electric companies. Of course, we intuitively recognize that such an over-simplification would misrepresent the energy sector, which includes everything from oil to uranium, mining equipment to chemicals, transmission to storage, grid technology to renewable energy. But worse, it would skew the way we thought about energy and contribute to defining models that lacked the appropriate integration, innovation, creativity and depth to match the complexity and priority of our broader energy challenges.

We must use the energy market comparison to guide our reinvention of the water market. Population growth, industrialization, resource scarcity and urban migration each present direct multi-factor challenges to both water supply and demand. The key to growing productivity and wealth around the world – both in developed areas where infrastructure is aged and in significant disrepair and in emerging areas where advanced infrastructure and health care systems must be developed for the first time – hinges upon our collective ability to manage this water nexus.

In order to drive capital to water markets, we have to create models that reward investment and destroy models that distort its value. Water is not a discrete industry but a prerequisite to economic prosperity, a centrifugal driver of capital allocation decisions and a common thread among the preeminent issues of our day.

Alexander Miles is managing partner and chief investment officer at Kingfisher Capital. He serves as manager for both traditional and alternative investment strategies with a focus on water, sustainability and the water-energy-agriculture nexus. He can be reached at amiles@kingfishercapital.com.