

Clean Water

1. EXECUTIVE SUMMARY

- Water scarcity, rising water demand and water quality concerns remain key challenges worldwide.
- Several severe droughts continued to affect agriculture and drinking water around the globe.
- Privatization of water utilities and outsourcing of contracts continues. Enforcement of existing regulation, as well as regulatory changes and the difficult economic climate are at the basis of this trend.
- Soft construction markets continue to put pressure on the providers of infrastructure, while increased momentum for public water investments provides support.
- Momentum for water treatment as well as water reuse and desalination is picking up further.

2. CLEAN WATER

Water scarcity, rising demand and quality concerns remain key challenges

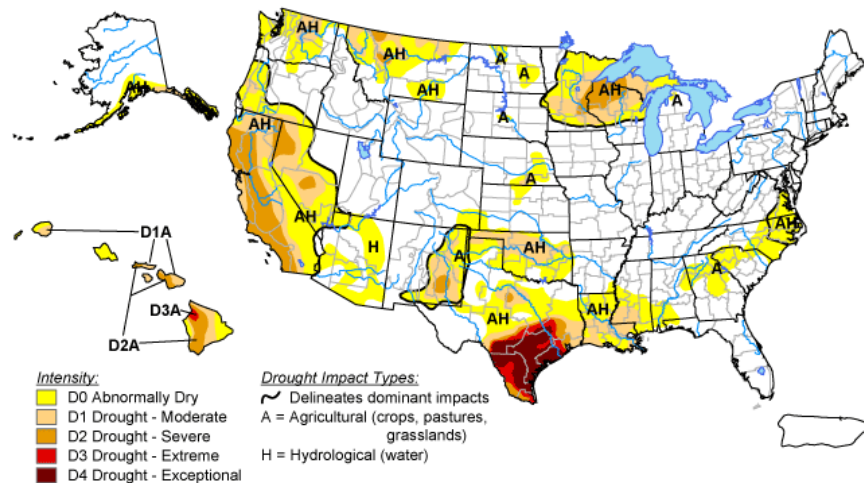
Water scarcity, rising water demand as well as water quality concerns remain key challenges worldwide. A new report from the World Resources Institute and the International Finance Corporation about the impacts of key environmental trends in six Asian economies – India, Indonesia, Malaysia, Philippines, Thailand, and Vietnam – points to water scarcity as a growing problem. Even in those areas with naturally abundant water, the actual amount available may be reduced by water pollution and waste mismanagement. Deforestation also worsens water quality because forests help regulate water quality and flow.¹

According to the World Health Statistics report 2009, published by the WHO in May, the proportion of the population with access to improved drinking water sources increased from 76% to 86% between 1990 and 2006. Since 1990, the number of people in developing regions using improved sanitation facilities has grown by 1.1bn. Nevertheless, in 2006, there were 54 countries in which information was available where still less than half the population used an improved sanitation facility.²

In Europe, an ambitious scheme to fix and safeguard the region's rivers and secure its water future is at risk of being undermined by poor and inadequate plans for water management prepared by EU countries, according to a new study published in May by WWF and the European Environmental Bureau (EEB). The report expresses particular concerns about increasingly water scarce Italy and Greece and says that large portions of Europe's waters remain at risk of becoming unavailable or in need of expensive treatment.³

Severe droughts continued in the US, ...

The US continued to suffer from droughts in Q2. According to the US Drought Monitor, the surface area in the US affected by severe, extreme, or exceptional drought decreased from 6.7% to 5.4% between the end of March and mid-July. In the same period, the surface area affected by exceptional drought, the most severe drought category, increased to 1.8% – the highest figure for more than a year.⁴



Graph 1: US Drought Monitor, 14 July 2009

Source: National Drought Mitigation Center⁵

... Australia, ...

In Australia, drought in the main food growing region of the Murray-Darling river system remains severe. After a ninth year of record low autumn rainfall, the June 2009 Drought Update reported useable water storage for the Murray system at 11% of capacity (980 GL), well below the May long term average of 4,670 GL. The total volume of water in all Basin storages managed by the Murray-Darling Basin Authority or by State governments, was at 17% of capacity.⁶

... as well as several other countries around the globe

Agriculture and drinking water are also affected by drought in many other countries around the globe. The International Committee of the Red Cross (ICRC) reported that approximately 185'000 people in Paraguay are affected by a lack of basic resources due to drought. The drought led the Paraguayan government to declare a state of emergency on 11 May.⁷ Shortly thereafter, Somalia was reported to be facing its worst drought in a decade. According to the UN, some 3.2m Somalis out of an estimated 19m in the region need food aid.⁸ In the same month, Iraq called on Turkey to release more water down the Euphrates river, saying the country's farms and drinking water supplies were at stake.⁹ And the former Yemeni prime minister Abdul-Karim al-Iryani, said in June that his country, stricken by a toxic cocktail of drought, economic crisis and political unrest, could suffer famine next year.¹⁰

In Egypt, a cabinet report said water needs will surpass the country's resources by 2017 because its population, now around 76m, is still increasing fast. According to the report, the Arab world's most populous country would need 86.2bn cubic meters of water in 2017 while resources would be only 71.4bn cubic meters.¹¹

Capital transactions in the sector continued

M&A activity in the sector continued. In April, Flowserve Corporation, a provider of flow control products and services for the global infrastructure markets, announced it acquired privately owned CALDER AG, a Swiss Company, to expand the products



and advanced technologies it offers to the growing global desalination markets.¹² In June, China's Duoyuan Global Water, a water treatment company, announced that its initial public offering of 5.5m American Depositary Shares (ADSs), representing 11m ordinary shares, was priced at US\$16.00 per ADS, yielding proceeds of US\$88m.¹³ Shortly thereafter, Germany's RWE AG reduced its majority shareholding in US water utility American Water to a minority position. After the initial public offering in April last year, a further 11.5 million shares have now been sold to the public through a group of underwriters.¹⁴

2.1 WATER UTILITIES

Momentum for the privatization of water services ...

The struggle of governments and local authorities with the global crisis and ballooning debt, provides a strong impetus to privatization of water utilities. The privatization of Greece's EYATH is a case in point for this. In July, the Greek government announced its decision to launch a tender competition to sell a 23% stake in Thessaloniki water utility EYATH, the country's second-largest. Greece has said it is looking for a strategic investor in EYATH as part of plans to raise €1bn from state asset sales this year to reduce public debt. The state currently owns 74 percent of EYATH.¹⁵ A month earlier, Aqua America completed the acquisition of the water system assets of the Kratzerville Municipal Authority which serves approximately 400 residents in Pennsylvania. The Kratzerville assets were the sixth acquisition for Aqua America in 2009.¹⁶

... as well as the outsourcing of water contracts remains high

Similarly, momentum for the outsourcing of contracts remains high. In June, a Valoriza-led consortium was awarded a €325m contract to operate the integral water cycle for the 85'000 inhabitants of the Spanish city of Guadalajara for the next 25 years. The winning bid included a commitment to reducing the current 40% leakage rate in the city's drinking water network as one of its priorities.¹⁷ In June, the Andratx (Spain) city council has awarded ACCIONA Agua a 36-year contract for the construction and exploitation of the integrated water cycle services for ten residential developments in the municipality, with a reference population of 5,000 inhabitants. The contract is worth €120m.¹⁸ In mainland Spain, public company Canal Isabel II awarded a contract for the operation and maintenance of the "South" plant, the main treatment plant for Madrid, to a consortium headed by Veolia Water. The facility treats the wastewater for an equivalent population of close to 3m and has a maximum capacity of 560'000 cubic meters per day.¹⁹ A month earlier, Veolia Water signed a contract with the public works authority of the city of Doha in Qatar to run the operations and maintenance of two wastewater treatment plants. The contract represents an estimated cumulated total turnover of €44m.²⁰ Moreover, Severn Trent Services announced it has entered into a public-private partnership with the City of Cameron, Texas, to provide contract management, operation and maintenance of the city's 1.4 millions of gallons per day (MGD) wastewater and 1.4 MGD water treatment plants which serve a population of 5'600. Severn Trent also will be responsible for maintaining the city's collection and distribution systems, as well as meter reading. The five-year partnership is valued at US\$4.7m.²¹

Further support comes from changing regulatory frameworks

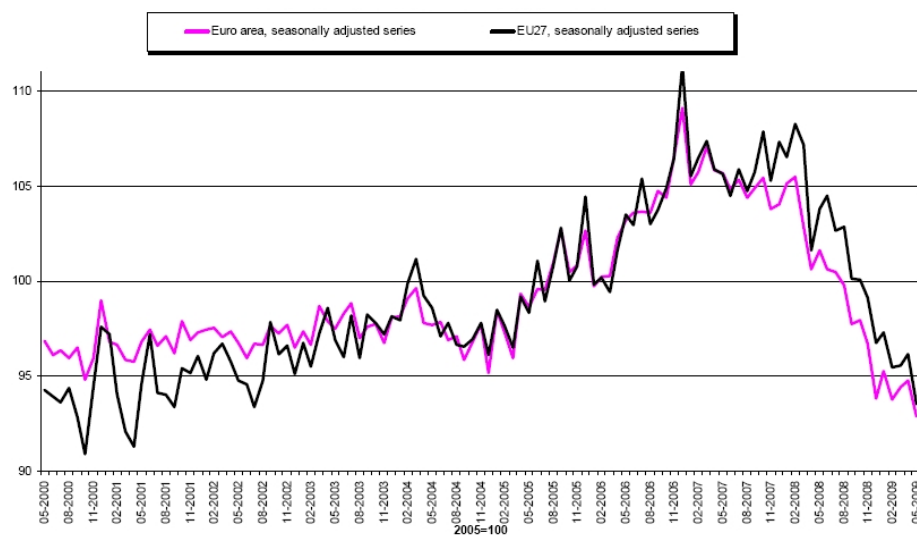
Making municipal water markets and utilities more attractive by removing hurdles for private investment and consolidation is the objective of many a government or regulator. Portugal introduced new legislation aimed at making its municipal water market more attractive for private sector investment. The new legislation frees concession holders from some financial obligations and allows them to set tariffs three years in advance.²² Similarly, the Cave Review, the final report of an

independent review of the UK water markets published in April, suggests to raise the annual turnover threshold below which water companies can merge without being referred to the Competition Commission from GBP10m to GBP70m – thus opening the way for further consolidation in the sector.²³

2.2 WATER INFRASTRUCTURE

Water infrastructure providers continued to suffer from weaker construction and renovation markets ...

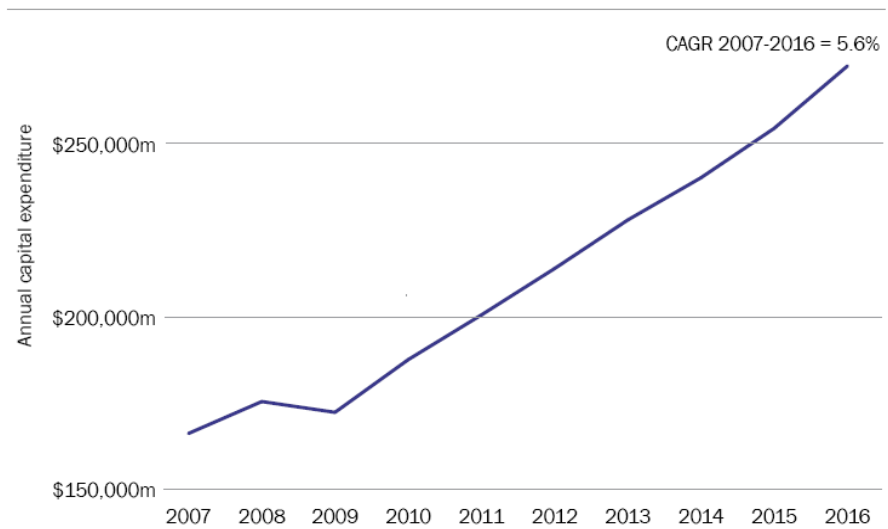
Water infrastructure providers continued to suffer from weaker global construction and renovation markets, but first signs of improvement have become visible. In the US, privately-owned housing starts in May were at a seasonally adjusted annual rate of 563'000. This is 8.7% above the revised May estimate of 518'000, but 52% below the June 2008 rate of 1'174'000.²⁴ In Europe, however, the seasonally adjusted construction output fell by 2.0% in the euro area and by 2.7% in the EU27 countries in May 2009, compared with the previous month. In April, production rose by 0.4% and 0.6% respectively.²⁵



Graph 2: Production index in the European construction sector
Source: Eurostat²⁶

... while financing for public water infrastructure provides support to the sector

At the same time, financing for public water infrastructure provides support to the sector. In July, the US Environmental Protection Agency (EPA) awarded Recovery Act Funds for water and wastewater infrastructure projects to several states including US\$77m to Tennessee, US\$20m to Utah, US\$27m to Colorado, US\$121m to Indiana, US\$179m to Texas, US\$35m to New Mexico, US\$70m to Louisiana, US\$19m to Delaware, as well as US\$72m to Puerto Rico.²⁷ In the same month, US-based Pentair announced the largest contract in its history when it won a US\$65m deal to supply pumps to New Orleans.²⁸ Further south, Brazil received a US\$220m loan from Japan to help improve the water supply of its biggest city Sao Paulo, and sewage treatment in the state of Santa Catarina.²⁹ In the Middle East, Iraq was reported to have awarded Veolia a deal worth more than US\$1bn to repair eastern Baghdad's water supply system. The contract has yet to be finalized.³⁰ Global Water Intelligence projects that municipal and industrial capital expenditure will continue to grow with a compound annual growth rate of 5.6% globally until 2016.



Graph 3: Municipal and industrial water capital expenditure forecast
Source: Global Water Intelligence³¹

2.3 WATER TREATMENT

Water treatment remains high on political ...

Water treatment remains high on the agenda. In Q2, the European Commission kept up the pressure on member states failing to comply with waste water regulations. Late June, it opened a case against Italy which relates to a failure to comply with obligations for the treatment of waste water. Some 500 Italian towns and cities are listed as not having waste water treatment up to EU standard. The Commission sent a first written warning to Italy for failing to comply with EU legislation and has given Italy two months to respond.³² In the same month, Belgium received a second written warning for not fully complying with a July 2004 European Court of Justice ruling on the treatment of urban waste water in cities of more than 10'000 equivalent-inhabitants. The Court ruled that over 100 towns and cities were lacking adequate waste water collecting systems and secondary or tertiary treatment plants, and asked that the situation be remedied. While progress and investments have been made since the ruling, Belgium still does not fulfil all its obligations under the Urban Waste Water Treatment Directive. In the absence of a satisfactory response, the Commission could refer Belgium to the European Court of Justice and ask that fines be imposed.³³

... and business agendas

In Asia, Japan's Sojitz Corp. announced in early July that it plans to start sewage treatment operations in China. The company may start building a JP¥3bn (US\$31m) plant in Tangshan, in China's northeast as early as next year and will explore a wider expansion that could include as many as 10 plants in five years.³⁴ For the Middle East, new analysis from Frost & Sullivan finds that the water treatment market earned revenues of over US\$1.3bn during 2008 and estimates this to reach US\$1.9bn in 2013. The report expects some of the investments in the segment, which were planned considering crude oil price of more than US\$85 per barrel, likely to be shelved, but forecasts strong economic fundamentals and increased governmental expenditure to put the market back on the rails by 2010.³⁵

Demand for water reuse ...

Demand for water reuse continues its expansionary course. In Spain, the autonomous government of Valencia announced in May that it is drawing up a €700m plan to boost reuse capacity in the region by 80%. Approximately €140m of

this amount refers to wastewater treatment infrastructure, reservoirs and pipelines already under construction. The regional government aims to have all remaining projects out to tender by 2011.³⁶ Across the Atlantic, the tender for the 2m m³/d Atotonilco wastewater treatment plant in Mexico's Hidalgo province was published in May, with proposals due in on 7 October. The proposed US\$615m plant is the jewel in the crown of the Mexican government's ambitious program to treat 100% of Mexico City's wastewater by 2012. The treated water will be reused primarily for agriculture. Today, less than 10% of Mexico City's 3.5m m³/d wastewater flows are treated, with most of the untreated effluent being pumped directly to the nearby state of Hidalgo.³⁷

... and desalination continues to grow

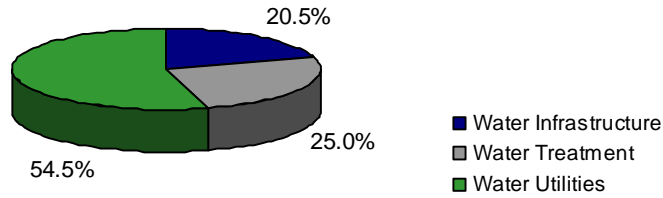
Desalination markets also continue to grow, especially in regions that have rapidly growing populations and are badly affected by long, drought seasons.³⁸ Construction of the biggest seawater desalination plant in the Western Hemisphere, north of San Diego, can begin by year's end after a six-year effort to win regulators' approval was successful in May. The San Diego Regional Water Quality Control Board voted unanimously to approve permit revisions for the US\$300m facility, which is expected to become operational in the first quarter of 2012 and will produce 50 million gallons of drinking water daily. However, the project remains contentious and faces strong opposition from environmentalists who are concerned about its impact on marine life: A further 20 such plants for California are in various stages of development.³⁹ In Australia, the Federal government provided environmental approval in June for the development of Western Australia's second seawater desalination plant confirming that work on the AU\$955m project would begin within weeks.⁴⁰ Meanwhile, a mobile desalination plant installed in less than 8 months at Moni in Cyprus already delivered over 2bn liters of drinking water since its deployment in December 2008 and May 2009. The unique mobility aspect of the solution as well as the speed of deployment is seen as one of the few options available to governments facing immediate problems.⁴¹

3. INDEX NEWS

The World Water Index (WOWAX) comprises the 20 largest companies in the global water business. Index constituents are allocated to one of three clusters: Water Utilities, Water Infrastructure, and Water Treatment. In the WOWAX (cap weighted), Water Utilities had the largest cluster weight as of June 30, 2009. Its 54.5% weighting was followed by 25% for Water Treatment and 20.5% for Water Infrastructure.

Based on the last review in June 2009, Calgon Carbon Corporation and Badger Meter Incorporated have qualified for inclusion in the WOWAX. Calgon Carbon Corp is a global manufacturer and supplier of activated carbon and innovative treatment systems and also provides technologies and services for optimizing production processes for safely purifying water and air. The company has production and operations in North America, Europe and Asia. Badger Meter Inc is a leading manufacturer and marketer of flow measurement and control products, serving water utilities, municipalities and industrial customers worldwide. Measuring a variety of liquids, from potable water to oil and lubricants, to industrial processes, the company's flow metering products and meter reading systems allow customers to improve their operations and effectively manage their resources. Badger Meter Inc was founded in the USA in 1905. California Water Service Group and Franklin Electric Co. Inc. were deleted from the WOWAX in June 2009.

**WOWAX
(cap weighted)**



Graph 4: WOWAX Allocation (cap weighted)

Source: SAM / Dow Jones

During the last 12 months, the WOWAX (cap weighted) decreased by 16.4%, compared to 20.8% for the MSCI World.



Graph 5: WOWAX (cap weighted) Performance

Source: Bloomberg

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