

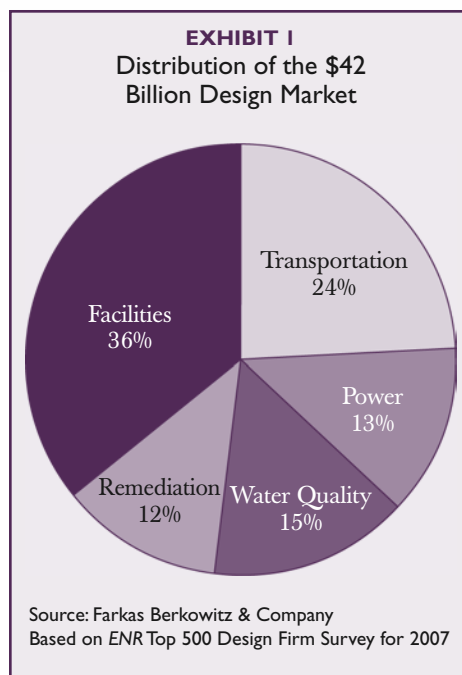
RED HOT DESIGN AND CONSTRUCTION: MARKETS BEGIN TO COOL

By Alan L. Farkas & Christopher S. Frangione

Design and construction markets related to environment, infrastructure, and facilities began to slow their rate of growth in 2007, and growth rates are expected to decline still further in 2008. Exhibit 1 shows the distribution of the infrastructure and environmental engineering market among the major market segments.

Designers for transportation, power, water quality, remediation, and facilities in the U.S. enjoyed, in aggregate, a robust growth rate of 12 percent in 2007, down slightly from the phenomenal 15 percent growth rate of 2006. The volatile power engineering market masked a more significant growth rate decline. Excluding power engineering, the aggregate growth rate of the remaining segments in 2007 were half that of 2006, declining from a 14 percent growth rate in 2006 to a 7 percent growth rate last year.

We forecast that the five infrastructure markets in aggregate will grow 5 percent in 2008 and 7 percent in 2009. We expect the current economic slowdown to affect all major markets, but the timing and significance



will vary. The slowdown in growth coupled with the housing crisis, rising fuel prices, and the disruption in the municipal bond market will result in a slowing of growth

in design markets related to transportation, water quality, and remediation. The slow rates of growth will be partially offset by the still rapidly growing design markets for power and non-residential facilities. Moreover, the U.S.-based design firms doing business abroad will continue to see more robust rates of growth from international projects. Longer term, infrastructure needs should bolster strong design and construction markets well into the next decade.

WATER QUALITY ENGINEERING AND CONSTRUCTION

We estimate the water quality engineering market grew 6 percent in 2007, breaking a string of at least eight consecutive years of annual growth at 10 percent or better. We forecast that growth will slow further to 3 percent this year and then return to double digit growth in 2009.

U.S. Census Bureau estimates construction on water and wastewater plants grew 6 percent in 2007 to \$40 billion. These statistics include waste management facilities, as well.



U.S. Census Bureau estimates construction on water and wastewater plants grew 6 percent in 2007 to \$40 billion.

The first signs of a slowdown in the engineering market were seen in mid-2007. Project delays and cancellations have been seen in such Sunbelt states as Florida, Georgia, Arizona, Nevada, and New Mexico. As a result of the housing crisis, we saw population growth slow considerably in many of the fastest growing counties in the Sunbelt states. This rather abrupt slow down in population growth not only reduced the need for additional water and wastewater infrastructure, but also significantly impacted those public utilities that rely on hook-up fees as an important source of revenue to fund capital improvements. Recent disruptions in the municipal bond market could also be having a chilling effect on water infrastructure projects. The municipal bond market is still adjusting from concerns over the credibility of insurance that guarantees many municipal issues, and this adjustment combined with a large supply of bonds on

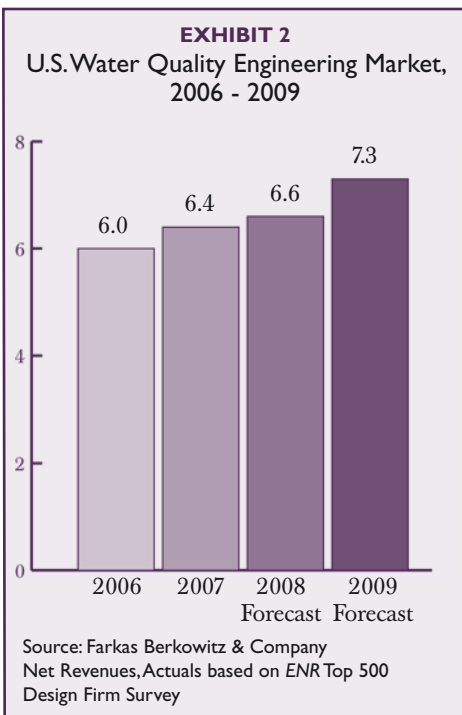


the market helps to explain the relatively high interest rates that municipal bonds are currently fetching.

A slowdown in Sunbelt state population growth will also cause the water design-build market to reduce its phenomenal rate of growth from a better than 20 percent growth rate in 2007 to a 10 percent rate in 2008. The number of competitors for each design-build procurement is increasing as

general contractors begin to flock to this attractive market and engineering firms increasingly gear up to play prime contractor roles.

WATER QUALITY PUBLIC-PRIVATE PARTNERSHIPS
Based on a survey recently reported by *Public Works Financing* magazine, we estimate that the water public-private partnership market



As a result of the housing crisis, we saw population growth slow considerably in many of the fastest growing counties in the Sunbelt states.

showed no growth, even in nominal dollars, in 2007. The number, average duration, and average annual contract value has declined steadily over the last five years.

Not surprisingly, major firms in the partnership market continue to diversify their services. For example United Water acquired a water tank services company, Utility Services Company, and OMI continues to emphasize comprehensive city services. Investment in the core business is growing. Increasing use of membrane technology for desalination and water reclamation could spur more design-build-operate projects and give contract operators some hope. The greater use of operationally sensitive membranes combined with the increasing financial burdens shouldered by public utilities could also cause more municipalities to look to private partners to operate their facilities.

REMEDICATION CONSULTING AND ENGINEERING

We estimate that the remediation consulting market declined 1-2 percent in 2007. Moreover, we forecast an additional five percent contraction this year and a flat market in 2009.

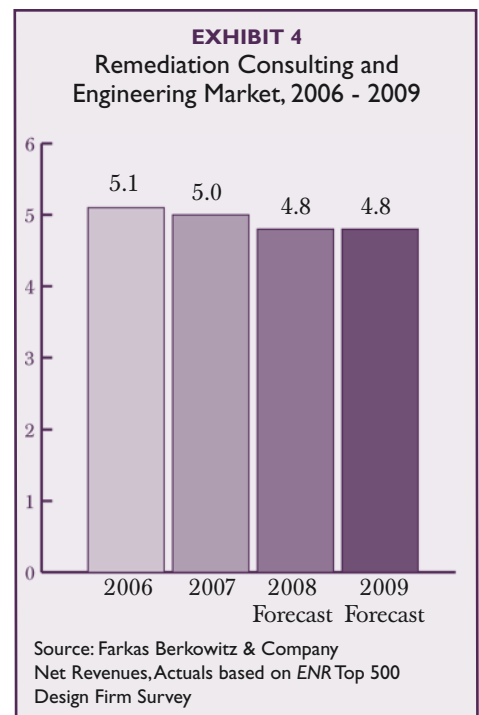
We found that, as in other markets, larger firms, with international projects, fared far better than those reliant on the domestic market. The top five firms in remediation consulting grew an average of 17 percent, counting revenue from both domestic and international projects, while those not in the top 15, saw their revenues contract by an average of 16 percent.

We expect a slower mergers and acquisitions market to reduce both due diligence studies and associated remediation projects in 2008 and 2009. During 2009, we will be

We found that, as in many other markets, larger firms with international projects, fared far better than those reliant on the domestic market.



transitioning to a new administration. Even if the White House remains in Republican hands, transition to a new president could slow decision making on remediation projects and cause a lull in the market. Those



remediation consultants serving big oil clients and those with significant permitting practices for energy related projects should avoid seeing much of an impact from the current economic slowdown.

Based on interviews with major remediation contractors to the Department of Defense (DOD), we estimate that the DOD remediation market contracted again in 2007 after shrinking in 2005 and 2006. Overall, many DOD remediation contractors saw revenues decline by as much as 50 percent during the three-year period. Most major contractors believe that the DOD remediation market is entering the end-game stage. The Army and Air Force are centralizing procurement in a manner that would appear to place a greater emphasis on price and a declining emphasis on past performance and strong client relationships.

EXHIBIT 3
Profile of New Water Public-Private Partnerships, 2002-2007

Year	Number	Average Duration (Years)	Average Annual Contract Value (\$Millions)
2002	49	7.2	1.3
2003	50	5.8	1.1
2004	51	5.2	0.83
2005	48	5.4	0.97
2006	40	4.1	0.91
2007	26	5.2	0.89

Source: Farkas Berkowitz & Company
Based on survey conducted by Public Works Financing

ABOUT THE AUTHOR

Farkas Berkowitz & Company is a management consulting firm serving companies that provide design, construction, and operational services relating to infrastructure, environmental protection, and facilities. Established in 1983, the firm assists clients with strategy, organizational development, and mergers and acquisitions. Inquiries should be addressed to Chris Frangione at 202-833-7530 or frangione@farkasberkowitz.com or visit their website: www.farkasberkowitz.com.