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Executive Review 2013

Environmental Business International Inc.

EBJ 2012 BUSINESS ACHIEVEMENT AWARDS

Environmental Business Journal announces its 15th Annual Business Achievement Awards. The 2012 winners succeeded in a relatively difficult business climate, so we salute their dedication and commitment. Congratulations to the winners, thanks to all the companies that submitted nominations, and we hope to see you in for the official awards ceremony at Environmental Industry Summit XI on March 6-8, 2013.

Business Achievement

SMALL FIRMS <\$20 million)

GOLD MEDAL: Stell Environmental Enterprises, Inc. (SEE; Elverson, PA) for growing revenue to nearly \$14 million in 2012 from about \$6 million in 2011, while maintaining profitability of 12%. A small, disadvantaged and woman-owned firm under the Small Business Administration's 8(a) program, SEE holds contracts with the Department of Defense (DOD) and other clients that encompass a broad scope of restoration, compliance, and technical support activities. The firm was founded in 2004 by President Mary Jane Stell, who has guided SEE's development, growing the organization from 28 staff, one prime contract and \$1.5 million in capacity, and annual revenue of \$3.1 million in 2010 to nearly 100 staff, 16 prime contracts and \$40 million in capacity, and annual revenue of \$14 million in 2012. SEE's principals have identified partners and staff that bring innovation in technology and management to the market. These alignments and hires have facilitated measured expansion in a market where there is still room for quality, successful small businesses. Ms. Stell is an enthusiastic supporter of the small-business community and woman-owned small businesses.

SILVER MEDAL: Marstel-Day, LLC (Fredericksburg, VA) for achieving a nearly 50% increase in revenue over 2011 and more than a 125% increase in revenue since 2008. Marstel-Day projects that it will bill \$12.4 million in 2012, up 48% over \$8.4 million in 2011 and up 128% over 2008 revenue of \$5.4 million. The company expects growth to continue in 2013, with more than \$15 million in task-order value under contract. Marstel-Day started the federal fiscal year October 1, 2012 with over \$17 million in contract value booked, compared with \$12.5 million in 2011, and the company expects to bill \$16 million in 2013, an increase of 30%. Marstel-Day has grown from 34 employees in 2008 to more than 100 employees, nearly tripling its size in five years, a 20% increase in 2012, and continued hiring in 2013. This year also resulted in numerous awards for the company, including the HUBZone Corporate Citizen of the Year award from the HUBZone Contractors National Council and the Alliance for Workplace Excellence Eco-Leadership Award.

BRONZE MEDAL: PMC (Oakland, CA) for its dramatic turnaround over the past four years. As a result of the Great Recession of 2008 through 2011, PMC embarked on a turn-around strategy to stabilize the organization and then initiate an aggressive strategic growth plan with the ambition of expanding services and its geographic reach. The plan originated in the fall of 2010, and implementation began in early 2011. As a direct result of the strategy, financial performance has improved significantly, with 2012 achievements including the following: sales and backlog increased 25%; utilization increased by 10%; gross revenue increased 5%; net revenue increased 3%; operating profits increased 513%; and EBITDA increased 115%. The steps taken to achieve these improvements included an enhanced business development process, greater transparency in financial performance at the project level, a re-organization of service lines to enhance collaboration, refined external marketing and branding, refined budgeting and strategic planning, and im-

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proved internal communication around PMC's vision.

HONORABLE MENTION:

Environmental Management and Planning Solutions, Inc. (EMPSi; Boulder, CO) for growing revenue by more than 20% for the fourth year in a row. Growth over that period totaled more than 300%. EMPSi expanded from four offices to six offices, with new offices in Portland, Oregon, and Santa Fe, New Mexico. EMPSi continued expansion of its commercial energy business with new awards for solar, wind, and geothermal projects in 2012. The firm received significant new awards from federal government clients by winning three multi-year, multi-million dollar contracts, two in the company's expanding water compliance services sector. The Bureau of Reclamation awarded EMPSi a \$4.28 million contract for support services associated with the development of an environmental impact statement (EIS) for the future Pojoaque Basin Regional Water System. The Bureau of Reclamation's Mid-Pacific Region awarded EMPSi a five-year contract with a ceiling of \$60 million to provide water-related environmental compliance services. The Department of Interior also awarded EMPSi a five-year contract with a ceiling of \$9 million.

HONORABLE MENTION:

Straughan Environmental, Inc. (Columbia, MD) for 20% revenue growth and 14% staff growth in 2012, and for 107% revenue growth since 2008. Founded in 1995, Straughan, a woman-owned environmental planning, science, and engineering design company focused on sustainability, claims to have played some role in every major transportation improvement project in its region, from wetland delineations and mitigation site search and site design for the replacement of the Woodrow Wilson Bridge near Washington D.C. in the late 1990s, to working on the NEPA documentation for the highly controversial Intercounty Connector highway (Maryland Route 200) in 2004, to serving as the environmental compliance company for the I-95 Electronic Toll Lanes project for the Maryland Transportation Administration beginning in 2006. Recognizing the changing climate in transportation,

Straughan set a course through its annual strategic planning process to diversify its projects and client base, achieving top-line growth of \$1 million per year in revenue between 2008 and 2012, with more than 40% of its client base diversified to include federal and commercial clients.

HONORABLE MENTION:

Environmental and Occupational Risk Management, Inc. (EORM; San Jose, CA) for 17% revenue growth per year over the last three years, and an increase of nearly 50% during the period from 2010 to 2012. EORM attributes this growth to a three-year strategic plan, combining both organic and inorganic growth. Key to this growth was the creation of new consulting practice areas in sustainability, healthcare, and clean energy, and continued focus in ergonomics, management systems, and construction environmental, health, and safety (EHS). In particular, the sustainability and construction EHS practices are projected to exceed 2012 revenue goals by over 20%. Expanded global EHS and sustainability services, predominantly in Asia, were also a factor in revenue growth. In addition, as part of its acquisition strategy, EORM began realizing increased revenues from expanded environmental services following its third-quarter 2011 acquisition of Oxnard, California-based **Sigma Engineering Services, Inc.** EORM was recently ranked the top environmental firm in the Silicon Valley by the *Silicon Valley Business Journal*, up from the number two spot in 2011 and number five in 2010.

Honorable Mention: **Mabbett & Associates, Inc.** (Bedford, MA), a service-disabled, veteran-owned small business (SD-VOSB), for increasing revenue by 107% over the period from fiscal years 2008 to 2012, from just over \$2.4 million to just under \$6.2 million. During that period, Mabbett increased its revenue growth from business in the federal sector by 915%; federal business had represented 2% of the firm's revenue in FY 2008 and grew to about 74% of total revenue in FY 2012. Mabbett has received major multi-year and repeat contracts from several federal agencies and departments, including the U.S. Environmental Protection Agency, the Army Corps of Engineers, the General Services Administration, the Department of Veterans Affairs, the Department of Labor, and other federal clients. In 2012, Mabbett ranked at number 22 on the Zweig Letter "Hot Firm" list, up from number 36 in 2011 and number 68 in 2010, and ranked among Inc. magazine's list of the 5,000 fastest growing private companies in the United States.

Business Achievement

MID-SIZE FIRMS (\$20-100 million)

GOLD MEDAL: Cape Environmental Management Inc. (Norcross, GA) for 43% growth in its environmental revenue over the past two years, from \$26.5 million in 2010 to \$38 million in 2012. This growth has been achieved across many

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market areas, including work for commercial/industrial clients and the federal government, with the biggest increase in environmental remediation for the U.S. Air Force. Cape's 12-year history of working with Air Force Civil Engineer Center (AFCEC), as well as its success in achieving site closures at military bases, resulted in its winning "fence-to-fence" performance-based remediation contracts at Robins Air Force Base (AFB), Joint Base San Antonio, the former Griffiss AFB, and the former K.I. Sawyer AFB. With periods of performance of up to nine years and total value of \$86 million, these four contracts alone have provided a sustainable base of environmental revenue, allowing Cape to invest in other parts of its business. For example, from 2011 to 2012, Cape's military munitions response sales increased 23%, and sales of fuel system inspections, repair, and construction services increased 25%. Cape has also expanded its presence outside the U.S. and is currently performing work in Guam, Colombia, Panama, Costa Rica, and Afghanistan.

SILVER MEDAL: Sullivan International Group, Inc. (San Diego, CA) for substantial success in increasing backlog with the U.S. Army Corps of Engineers (USACE) and the U.S. Air Force, and for breaking into the international market. Sullivan was awarded \$22 million through new U.S. Army task-order awards under existing contracts, including the USACE Tulsa District's Environmental Remediation Services Multiple Award Task Order Contract (ERS MATOC), the USACE Omaha District's Security, Disaster, Infrastructure, Construction (SDIC) contract, and the USACE Los Angeles District's Mesa contract. One notable win was a \$17.8 million levee construction project by the USACE Omaha District to provide repair and construction of levees. Sullivan also had great success in 2012 with the U.S. Air Force, winning \$5.5 million in awards from existing contracts. For example, through an existing Environment, Construction, and Operations and Services (AFCEE-ECOS) contract with the U.S. Air Force Air Force Center for Engineering and Environment (AFCEE), Sullivan was awarded its first international project at Yokota Air Base in Japan. Sullivan saw its

ABOUT THE EBJ BUSINESS ACHIEVEMENT AWARDS

In October–December 2012, EBJ solicited the environmental industry via e-mail, social media and word-of-mouth for nominations for the EBJ Business Achievement Awards. Nominations were accepted in 200-word essays. Final awards were determined by a committee of EBJ staff and EBJ editorial advisory board members. The 2012 EBJ Business Achievement Awards will be presented at a ceremony at Environmental Industry Summit XI in Coronado, CA, on the evening of March 6, 2013. EBJ encourages all interested companies to participate next year. (*Disclaimer: company audits were not conducted to verify information or claims submitted with nominations.*)

gross revenue increase from slightly more than \$42 million in 2011 to nearly \$52 million in 2012, an increase of 24%, and it increased backlog by 78%.

BRONZE MEDAL: Dudek (Encinitas, CA), a 300-employee, California-focused environmental consulting and engineering firm, for increasing revenue by about 14% to approximately \$45 million, maintaining a profit level of 15 to 16%, and increasing backlog from about \$36 million as of the end of 2011 to \$47 million as 2012 came to a close. The company attributes its success to a combination of external market factors and internal organization. California's dedication to environmental protection and strong regulatory regime continues to generate a high level of opportunity, and the renewable energy market is very strong. In addition, the water/wastewater market has been solid on the maintenance and repair side—a Dudek strength—and the land development has started to rebound. Internally, Dudek credits a very flat organizational structure and entrepreneurial culture with leading to growth and profitability, with professionals at all levels being very "hands on" and constantly generating new opportunities. The company says, over the past year, it has made excellent strategic hires of people who have substantially contributed to this culture and brought on board new opportunity.

Business Achievement

LARGE FIRMS (\$100 million or more)

GOLD MEDAL: Golder Associates (Atlanta, GA) for achieving a significant growth rate of 20% percent in 2012, end-

ing the year with \$1 billion in net revenue. Golder's revenue growth was spread across all operating regions, with double-digit growth in all areas, including Europe, despite the variability of market conditions there. Golder enjoyed growth across many sectors of the industry, from natural resources to urban development and infrastructure to power and manufacturing. Last year, Golder added staff as well, expanding to more than 8,900 employees, with a 10% increase in full-time employees. In addition to establishing **Golder Associates Kazakhstan LLP (GAK)** in Atyrau on the Caspian Sea to better serve clients' long-term needs for oil and gas development in that region, Golder opened offices in Ghana and near the Bakken shale gas region in Bismarck, North Dakota, and Estevan, Saskatchewan. Growth was also achieved through strategic acquisitions, including **Geotechnical Consulting Group (Asia) Ltd.**, one of the Hong Kong region's leading consultancies in geotechnical and foundation engineering.

SILVER MEDAL: Conestoga-Rovers & Associates (CRA) (Waterloo, Ontario) for growing revenue by approximately 13% in 2012 and for sustaining high profitability compared with other firms generating more than \$250 million in revenue on the list of companies represented at the **Environmental Financial Consulting Group's (EFCG) 2012 CEO conference**. CRA, which employs about 3,000 people in approximately 90 offices, primarily in North America, aims for modest, 10% annual growth, achieved primarily organically (in 2012, the company exceeded this mark in part by acquiring the remaining 50% interest that it did not already own in a Canadian firm). Under its business model, CRA places emphasis on ensuring

that its owners—its principals and associates—remain dedicated to working as professionals rather than as business managers; the principals and associates' billability is about 67% on average, whereas for consulting and engineering firms of CRA's size, average billability is typically more in the range of 5 to 10% for the top managers. The company has enjoyed positive revenue growth ever since it was founded in 1976, with the exception of 2010, and it has been profitable every year throughout its 36-year history.

BRONZE MEDAL: Tetra Tech, Inc. (Pasadena, CA) for achieving a record year in financial performance, increasing gross revenue to more than \$2.71 billion and net revenue to \$2.02 billion—a 13% increase over FY 2011. Based on net revenue, international business is now Tetra Tech's largest client sector and its fastest growth market. Tetra Tech ended its fiscal year with record backlog of \$2.14 billion, up 10% from the previous year. Recent expansions into Brazil and specialty oil and gas markets provide a solid foundation for continued growth in 2013. Performance was driven by strong demand for Tetra Tech's water-related services provided to mining, energy, and industrial clients. Among its largest wins for the year was the \$700 million U.S. Agency for International Development (USAID) Strengthening Tenure and Resource Rights (STARR) program contract to help improve security of property rights and access to land and related natural resources in developing countries. Other important 2012 contract wins included: a \$108 million watershed protection program with the U.S. Environmental Protection Agency (EPA); a \$19 million USAID Colombia clean-energy development program; and \$32 million in contracts to support EPA in its efforts to reduce global emissions of methane.

BRONZE MEDAL: O'Brien & Gere (Syracuse, NY) for executing a turnaround that has resulted in 8 to 10% average annual revenue growth over the past three years, and even higher rates of growth in profitability and backlog. O'Brien & Gere employs about 900 professionals in four market areas—environmental, water, energy, and facilities and infrastructure—and attributes its turnaround success in large part

to its integration of skills and talent across all of these areas in specific projects—a differentiator that has substantially contributed to margin improvement, according to the company. Other factors in the company's success have included improved cash and balance sheet management and some key investments, but the management team points in particular to the close attention the firm pays to surveying client and employee satisfaction and responding quickly and effectively to client and staff needs, which has led to a high level of client and employee loyalty. Another critical factor is the development of a rigorous, "rolling" and adaptive strategic planning process, called COPAC—"Checking Our Progress, Adaptive Change"—that engages employees at multiple levels in a process that implements ongoing adjustments to the company's strategic plan in response to changing market conditions.

Business Achievement

MERGERS & ACQUISITIONS

GOLD MEDAL: GENIVAR Inc. (Montreal, Quebec) and **WSP Environment & Energy** (Reston, VA) for merging to create a global professional services firm with combined revenue of \$1.8 billion and 14,500 employees, working in over 300 offices in 35 countries. The merger combined common skills and complementary geographies and client sectors to achieve both firms' strategic ambitions for global, diversified growth. Over their history, both businesses had developed strong capabilities in their environmental practices and are now able to offer fully integrated solutions to clients. The merger of WSP and GENIVAR has increased the size of their combined environmental business to 1,600 staff and \$322 million in annual revenue. During 2012, GENIVAR also acquired the following: Bogota-based **Consultores Regionales Asociados S.A.S.** (CRA), a 340-person firm specializing in civil, environmental, energy, and telecommunications engineering; **GRB Engineering Ltd.** (Calgary, Alberta), an 80-person engineering firm; and **Smith Carter Architects and Engineers, Inc.** (Winnipeg, Manitoba), a 190-employee integrated architectural and engineering firm specializing in the design

of complex projects in the science, technology, healthcare, security, defense, and urban impacts markets.

SILVER MEDAL: Cardno Ltd. (Brisbane, Australia) for completing a series of acquisitions continuing its expansion into the U.S. environmental market and onward into South America. In February, Cardno merged with **ATC Associates Inc.** (Lafayette, LA) in a transaction valued at approximately \$106 million. ATC added 71 offices in 39 states and client relationships with Speedway, ConocoPhillips, Bechtel, Walmart, the Port of New Jersey/New York, the New York City Housing Authority, and the North Carolina Department of Environment and Natural Resources. In July, Cardno announced that it had acquired **EM-Assist** (Folsom, CA), a 150-person environmental compliance and information management firm, for \$14.25 million, and **Marshall Miller & Associates, Inc.** (MM&A; Bluefield, VA), a 180-person environmental consulting firm serving the energy and mining industries, for a consideration of up to \$31 million. In December, Cardno purchased **ChemRisk, LLC** (San Francisco, CA), a 95-person environmental and health risk consulting firm, for a consideration valued up to \$33 million. Cardno finished the year with expansion in Latin America, acquiring **Caminosca S.A.** (Quito, Ecuador), a 400-person consulting and engineering firm serving the hydropower, mining, oil and gas, transportation, urban development, and water, sewer, and storm-water markets.

SILVER MEDAL: HDR, Inc. (Omaha, NE) for expanding its service base and its geographic reach, in the United States and abroad, through a number of acquisitions. In May, HDR acquired **Stetson Engineering, Inc.**, a Wyoming-based consulting and engineering firm with offices in Gillette and Riverton. Stetson Engineering specializes in water, sewer, stormwater, hydrology, and transportation design and engineering. In July, HDR announced the acquisitions of **InfraConsult**, an infrastructure management and advisory services firm with five offices in Arizona, California, Hawaii, and New Mexico, and

DKS Consulting Engineers (Spring Hill, Queensland), an Australian infrastructure services firm. InfraConsult is operating as a wholly owned subsidiary of **HDR Engineering, Inc.**, while DKS is operating as HDR/DKS. And in September, HDR Engineering picked up **Ecosystem Management & Associates, Inc.** (Lusby, MD), a woman-owned consulting firm specializing in coastal zone management, military range sustainability, pollution studies and management, environmental conflict resolution, and environmental outreach.

BRONZE MEDAL: Heckmann Corp. (Pittsburgh, PA) for continuing its build-out, through acquisition, of a national network of companies providing wastewater management and related services to the oil & gas exploration and production (E&P) market. In April, Heckmann completed its acquisition of **TFI Holdings, Inc.** and **Thermo Fluids Inc.** from private equity firm **CIVC Partners** (Chicago, IL) for about \$245 million. Thermo Fluids, now operating as Heckmann Environmental Services (HES), is an environmental services and waste recycling company that specializes in the collection and recycling of used motor oil for customers in the western United States. In September, Heckmann acquired **Appalachian Water Services, LLC** (AWS), operator of a wastewater treatment and recycling facility in Pennsylvania's Fayette County. In early December, Heckmann completed its merger with **Badlands Energy, LLC** (Watford City, ND) for a consideration of \$125 million in cash and the issuance of 95 million shares of Heckmann common stock to owner Mark Johnsrud. Badlands Energy does business as Power Fuels, which is an environmental services provider focused on the transportation, treatment, recycling, and disposal of fluids generated by oil and gas operations in the Bakken Shale region.

HONORABLE MENTION: IHS, Inc. (Englewood, CO), a provider of environmental, health, safety and sustainability (EHS&S) information to asset-intensive industries, for the acquisition of **CyberRegs** from **Citation Technologies, Inc.** and **XeDAR Corp.** (Arvada, CO).

Acquired for \$11 million, CyberRegs provides managed EHS regulatory content from across North American jurisdictions, content that is now integrated into enterprise-level EHS software and backed by IHS's domain expertise. IHS sees CyberRegs as further extending its leadership in the growing EHS&S market space. IHS acquired **XeDAR Corp.**, a 134-person provider of geospatial information products and services, for approximately \$28 million. XeDAR provides imagery processing solutions and related land information to government, oil and gas, utility, and other clients that manage or exploit natural resources.

Business Achievement

INFORMATION TECHNOLOGY

Locus Technologies (San Francisco, CA) for achieving its best year yet in terms of expanding and diversifying its customer base. Locus continued to enhance its position in the energy, sustainability, and compliance software markets by growing its Fortune 100 and U.S. Department of Energy (DOE) customer lists. Locus added DuPont to its list of customers this year, and it won influential contracts in new industries, including a contract with the Honolulu Board of Water Supply, opening the door to water-quality management for water utilities. Another win was with one of the largest companies in the agribusiness industry, expanding Locus' penetration in the food and biotechnology industries. Other new customers in 2012 included DOE's Pacific Northwest National Laboratory and Fermilab. In the private sector Locus signed numerous new customers, including Grain Processing Corp., Kelly-Moore Paint Co., and BASF, and renewed contracts with such companies as Honeywell, Exelon, Del Monte Foods, Kodak, Chevron, ExxonMobil, Pacific Gas and Electric, Southern California Edison, Stillwater Mining, Venoco, Safeway, and Stanford Linear Accelerator Center. Locus staff members were also certified this year as carbon offset verifiers by the California Air Resources Board. In 2012, Locus also became an approved contractor with the federal General Services Administration (GSA) for a range of services.

EarthSoft, Inc. (Concord, MA) for another high-growth year in 2012, with two-year combined growth in excess of 60% and a user base now spanning 43 countries. New EarthSoft clients include Santos (the largest Australian liquefied natural gas exploration and production portfolio by area), Teck Resources (Canadian mining producer of copper, coal, zinc, molybdenum, and specialty metals), Cetrel (the largest multi-party industrial facility in Latin America), Suncor, BP Alaska, Pioneer Natural Resources, Dow Chemical, the Region 9 office of the U.S. Environmental Protection Agency (EPA), the Port of Portland, Seattle Public Utilities, GZA GeoEnvironmental, Tetra Tech Germany, and MWH. In addition, the Marcellus Shale Coalition (MSC) chose the EQuIS software package in late 2011, and that program was launched in 2012. EQuIS workflows will provide data collection and electronic submissions to the Pennsylvania Department of Environmental Protection for the pre-drill database. EarthSoft also introduced new modules, including EQuIS Live for real-time, time-series data management, EQuIS Alive for ecology data, AutoCAD integration, and significant improvements to our planning module (SPM) and field data collection application (EDGE).

3E Co. (Carlsbad, CA) for a number of strategic product rollouts and enhancements in 2012. These enhancements include support for the U.S. Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS) for the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) across all business units and products with 3E's MSDgen SDS authoring platform. The company also experienced major promotion and growth in services related to Toxic Substances Control Act (TSCA) support, and it launched a new Exposure Scenario service to streamline conformance with Europe's Registration, Evaluation, Authorization, and Restriction of Chemical Substances (REACH) regulatory framework. In 2012, 3E also expanded its regulatory content coverage of the food, cosmetics, and narcotics industries; added 300 and revised 200 full-text regulatory documents; in-

creased and expanded news coverage in the WebInsight global regulatory reference tool; added 64 new lists, revised 288 lists in reference content, and added 113 new lists in integrated content; and expanded its Phrase library with 500 phrases and five new languages. The company also launched multiple new Ariel Data Manager offerings and new versions, including ADM-Material Master for streamlined access to product information from raw material suppliers.

Project Merit

REMEDIATION

CH2M HILL (Denver, CO) for safely destroying 145 WW II mustard gas projectiles at a former military depot in Columboola, Australia. Overpack containers on the munitions at the Columboola depot reduced storage danger but made the munitions difficult to destroy. CH2M HILL used its patented TC60 transportable detonation chamber (TDC) technology, which increases the safety of chemical-agent munitions destruction by reducing handling and preventing public exposure to dangerous munitions. With the portable system, which includes a destruction chamber and an air pollution control system to treat discharged gases, chemical munitions can be destroyed on site rather than being transported on public roadways for off-site treatment. CH2M HILL supported the Australian Department of Defence with ongoing public information, and the project was recognized at a local environmental education center in 2012.

Engineering/Remediation Resources Group, Inc. (ERRG; (Martinez, CA) for its work in restoring an abandoned copper mine in the remote Rogue River-Siskiyou National Forest, where waste rock was leaching sulfuric acid, arsenic, lead, cadmium, copper, and zinc, seeping into nearby creeks for 100 years. The Blue Ledge Mine Remediation was a large, complex environmental project where access, terrain, and logistics created significant challenges. The project, performed for the U.S. Forest Service, included removing 65,000 cubic yards of waste rock, encapsulating it in a geomembrane-lined repository, reclaiming

the 22 acres of disturbed areas, installing erosion control measures, replacing topsoil, and restoring native vegetation with over 15,000 native plants that were grown in an off-site nursery. A unique aspect of the project involved the use of three Spider excavators to crawl up the steep slope of the mountainside. The tailings were pulled down to where they could be handled with larger earth-moving equipment. Reinforced slope stability fabric was installed, and sediment and pH treatment basins were constructed. In addition, road access was not available to three of the four waste rock areas, so ERRG constructed approximately one mile of roads through rugged terrain to provide access to the areas.

Coastal Environmental Group (Edgewood, NY) for its work on the **Dalbey Bottom Chutes Phase II** contract with U.S. Army Corps of Engineers Kansas City District. This challenging low-land project faced constant flooding by the Missouri River, substantial amounts of groundwater inside the excavations, the extremes of working 24 hours a day through the winter, and unstable ground. The project involved the excavation of over 1.7 million cubic yards of contaminated soil, making it the largest Chute project undertaken by the Corps to date. Excavation started on December 26, 2011, and continued through to substantial completion on August 25, 2012, over 2.5 months ahead of the seeding-window schedule and nearly four months prior to originally scheduled contract completion date. Coastal currently holds nine Multiple Task Order Award Contracts (MATOCs) with the Corps' Kansas City, Baltimore, Omaha, and Galveston offices, the U.S. Fish and Wildlife Services, and the New York National Guard Bureau, totaling in \$488.6 million in capacity.

SCS Engineers (Long Beach, CA) for its implementation of the cleanup and an innovative soil reuse plan at the Mercado del Barrio site in San Diego County. The Mercado Del Barrio project encompasses the redevelopment of seven acres of San Diego's Barrio Logan community into a revitalized affordable housing site that includes a Latino-centric grocery store, com-

mercial and restaurant space, affordable housing, and above-ground parking. SCS Engineers was contracted to provide environmental consulting and construction services for the project. SCS's site assessment found that the upper one to five-plus feet of soil across the site had concentrations of lead high enough to necessitate the disposal of approximately 23,000 cubic yards of soil at landfills. This would have cost the project approximately \$2 million, which was not affordable. In addition, the off-site disposal of 37,000 tons of lead-impacted soil would have required more than 1,600 truck trips, resulting in approximately 350,000 miles driven by diesel-fueled trucks. To avoid these impacts, SCS designed a plan to bury or "reuse" the impacted soil beneath the parking and commercial spaces and cap it with six to nine feet of clean soil. The design took into consideration future landscape and utility maintenance needs.

Project Merit

WATER SUPPLY

Michael Baker Jr., Inc. (Moon Township, PA) for the Canonsburg Dam Rehabilitation project in Pennsylvania. Canonsburg Dam, a 70-year old concrete gravity dam, was showing its age and had been deemed at risk of failure. A previous study indicated there was a risk of the dam sliding, since the structure was only held in place by its own weight. Baker designed a system of high-capacity rock anchors and passive dowels to stabilize and anchor the aging concrete monoliths to bedrock. To refine the details of that solution and smoothly execute construction, the design had to overcome many challenges, such as: determining how the dam would perform under probable maximum flood conditions; ensuring that the structure would remain in one piece during anchoring; and avoiding "uncontrolled artesian flow" if fractured bedrock joints were encountered by the anchors. By incorporating innovative and value-added engineering and construction solutions, as well as developing contingency plans and working proactively with the contractor, the project was constructed under the \$2.1 million original price and one month ahead of schedule.

Project Merit

PLANNING & STRATEGY

AECOM Technology Corp. (Los Angeles, CA) for leading the development of the master plan for the London Summer Olympic games in 2012. The games and their revitalized setting of East London demonstrated the success of a massive, concerted effort that had begun years before and was aimed at ensuring sustainable community development in the years ahead. In addition to developing the master plan, AECOM mobilized civil engineers, program/cost consultants, building and environmental engineers, architects, landscape architects, and transport planners to help implement it. AECOM's technical expertise contributed to: the works necessary to relocate existing overhead electricity cables underground; delivery of the infrastructure on time and £800 million under budget; the massive project's energy and climate change strategies; development of the vehicular and pedestrian traffic management around the events and venues; and development of the futuristic Basketball Arena (the world's largest temporary sports venue). Largely on the strength of its work in London, AECOM has been selected to provide a master plan for the Olympic Park for the 2016 event in Rio de Janeiro.

Marstel-Day, LLC (Fredericksburg, VA) for completion of an Army Water Security Study for the Army Environmental Policy Institute (AEPI), in response to a need to transform Army water programs from narrowly defined functional processes into a comprehensive water strategy. Based on its research, Marstel-Day concluded that a systemic change was needed in Army policy to create a long-term, externally focused, ecologically based water security program. Marstel-Day established a conceptual framework for a water planning process by identifying six critical water security factors: sources, supplies, sustainable practices, survivability, sponsorship, and stakeholders. This framework can be adapted by other agencies to help plan for and achieve water security goals. Marstel-Day's work illustrated the many

factors that must be considered in developing comprehensive plans to create sustainable water source protection and supply programs, including: pollution risks to water sources; growing demand for limited water supplies; water rights disputes; climate change impacts; deteriorated water systems; limitations on water withdrawals to protect ecosystems; and potential water supply disruptions caused by system failures or natural disasters.

Environmental and Occupational Risk Management, Inc. (EORM; San Jose, CA) and biotechnology company **Genentech** (Hillsboro, OR), for preparing Genentech's Hillsboro Technical Operations Security program for certification to the ISO 28000:2007 Security Management Systems for the Supply Chain standard, and preparing the Hillsboro location for certification to the 18001:2007 Occupational Health and Safety Management Systems (OHSAS) standard. ISO 28000 provides guidance for developing supply-chain security programs, including continual improvement processes and goals. Supply-chain security is a primary goal for Genentech due to its considerable intellectual property and pharmaceutical manufacturing and distribution operations. OHSAS 18001, a management system that aligns closely with international ISO standards, requires continual improvement and tracking of health and safety performance beyond regulatory compliance. EORM provided process guidance, internal auditing support, document preparation, and training in cooperation with Genentech staff as the teams prepared for external audit and certification. After detailed external audits, Genentech received certification to ISO 28000 on November 30, 2012, the first bio-therapeutic or pharmaceutical company to receive this new certification. Genentech Hillsboro received certification in OHSAS 18001 on December 4, 2012.

Environmental Industry Summit XI

March 6-8, 2013 at the Hotel Del Coronado near San Diego.

EBJ Awards Presented March 6

Technology Merit

AIR POLLUTION CONTROL

Catalytic Products International, Inc. (CPI; Lake Zurich, IL) for the design and manufacture of a custom ammonia abatement system in a modular package. The VANGUARD system is a combined catalytic oxidizer and nitrogen oxide (NOx) reduction system that can be economically applied with many industrial and chemical processes that exhaust ammonia and organic compounds where NOx emissions are of concern, according to CPI. The system uses a first-stage ammonia removal catalyst designed to promote a majority shift to nitrogen. A second-stage NOx removal catalyst can be used with or without sparged ammonia reactant from the process to provide up to 98% reduction in NOx emissions. The system operates at low temperatures, and when incorporated with CPI's recuperative heat exchanger, it uses little natural gas. CPI has demonstrated that the system can work through a range of influent flow rates and concentrations. According to the company, it provides over 99.4% of liquid ammonium removal from wastewater and over 99% ammonia removal from air stripper exhaust.

Technology Merit

WATER/WASTEWATER

Sovereign Consulting Inc. (Robbinsville, NJ) for its mining group's design and pilot-testing of a sulfate-reducing bacteria (SRB) reactor for passive water treatment of coal-mine discharges to tributaries of the Monongahela River in Pennsylvania. These waterways are subject to new National Pollutant Discharge Elimination System (NPDES) permit requirements for sulfate and metals. The passive system utilizes anaerobic conditions to convert sulfate to sulfide. Sulfate levels have been reduced from an influent concentration of 3,500 milligrams per liter (mg/l) to 600 mg/l (83% reduction) with a retention time approaching five days. Sulfide created by the reduction precipitates iron, lead, zinc, and copper as metal sulfides to below permitted levels in the effluent. The degradation of organic matter in the treatment media also creates

significant alkalinity, enough to raise mine water discharge to a pH of 7.3. At this time, the system is entirely passive, with the exception of pumping the mine pool to the surface for treatment. It is anticipated that the present lime treatment system at the site will be discontinued, allowing the mining company a savings of \$300,000 per year alone in hydrated lime cost. The passive system will also prevent the need to install a costly reverse osmosis (RO) system to meet NPDES discharge requirements, resulting in even further savings. A 100 gallon per minute pilot system is planned for 2013.

Technology Merit

WASTE MANAGEMENT

Harvest Power (Waltham, MA), a processor of organic materials into energy and fertilizer products, for three projects that will altogether generate over 7 megawatts (MW) of renewable energy. First, Harvest's Energy Garden in British Columbia began commissioning in mid-November, a facility that the company describes as the first commercial-scale, high-solids anaerobic digestion system in North America. Second, Harvest's Energy Garden in London, Ontario, also began commissioning and is processing organic waste from food processors at an annual rate of 70,000 tons. Third, Harvest started construction on an Energy Garden in central Florida that will cost-effectively treat municipal biosolids and regional food waste while generating renewable electricity. Harvest currently operates 26 sites in North America and employs 435 people (an increase of more than 200 over 2011). The company manages more than 2 million tons per year of organics and sells more than 28 million bags of soil and mulch annually. Harvest was named to the Global CleanTech 100 list for the third year in a row and won the KPMG 2012 Infrastructure 100 World Cities Edition award. Another notable highlight from 2012 was a successful Series C fundraising round of \$125 million total, one of the largest capital raises in recent cleantech industry history.

Enerkem Inc. (Montreal Quebec) for starting up production of ethanol at its

demonstration facility in Westbury, Quebec. Enerkem has developed a technology platform that creates biofuels and renewable chemicals from non-recyclable waste. The technology processes heterogeneous materials, such as municipal solid waste, into a synthetic gas (syngas), which is then conditioned so it can be converted into advanced biofuels and renewable chemicals. This technology creates waste-based biofuels that address the growing demand for renewable fuel and the challenges associated with waste disposal and greenhouse gas emissions. Enerkem has validated its proprietary technology over a period of 10 years, using solid waste from numerous municipalities and other types of feedstock. The company is now approaching commercialization with a full-scale waste-to-biofuels facility under construction in Edmonton, Alberta.

Texas Molecular (Deer Park, TX) for its work in advancing the state of the art in deepwell injection. Underground injection in permitted hazardous waste deepwells is not a new disposal technology, but is increasingly being appreciated as viable. In 2011 and 2012, Texas Molecular led an effort to reconsider this technology as a valuable way to meet the triple bottom line of sustainability, speaking to groups in the hazardous waste, plating, and coal industries, and in 2012, the company substantially grew its commercial underground injection business in terms of clients, applications, customers, and geographies. Companies seeking to reduce their carbon footprint are considering underground injection due to low energy requirements and carbon emissions, which amount to a small fraction of the energy requirements and emissions of conventional wastewater and incineration processes. What has made the accomplishments more significant is that the company has done so in a time when so much controversy has emerged on the use Class 2 injection wells for wastewater from hydraulic fracturing operations.

Technology Merit

REMEDIATION

Soil-Therm Equipment, Inc. (Agoura Hills, CA) for deployment of its Remedia-

tion Monitoring and Control (ReMAC) capabilities into every remediation system it built in 2012. Whether use on a small blower package or a large chlorinated oxidizer system, ReMAC provides access to operational information and allows system operational changes through proprietary software and internet cellular access modems. Through ReMAC, operators can make changes to blower speeds, flows, alarms, vacuums, and timers, and reset or shut off the machine at any time. Project managers are able to access quarterly report data, oversee proper operation, and view alarms before getting to the site, thereby letting them know if they need to bring any special parts or tools on next visit. All operational changes and system monitoring can be accessed using an application for iPhone, iPad, or laptop computer connected to the internet. Travel and operations and maintenance time and costs are significantly reduced, according to the company.

Sovereign Consulting Inc. (Robbinsville NJ) for its design and installation of an in-situ ozone sparging system to remediate soil and groundwater impacted with petroleum and chlorinated hydrocarbons (primarily chlorobenzene) at a former chemical storage facility in southern New Jersey, a site that is concurrently undergoing redevelopment. The ozone sparge system covers approximately 10 acres of source zone and includes 416 individually controlled, nested sparge points with an output of 180 pounds per day of ozone, a total of 520 standard cubic feet per minute (scfm) of sparge air, and a soil vapor extraction (SVE) capacity of 1,500 scfm. The system design considerations incorporated site geology, hydrogeology, contaminants, worker safety, system flexibility, green and sustainable remediation, and present/future infrastructure. Within three months of system start-up, 12,000 pounds of ozone were injected, and through chemical desorption and stripping, SVE has collected 10,000 pounds of volatile organic compounds (VOCs) and 40,000 pounds of total petroleum hydrocarbons (TPHs) of the estimated 350,000 pounds of VOCs and TPHs.

Hepure Technologies, Inc., sister company of remediation firm **ARS Technologies, Inc.** (New Brunswick, NJ) for the development and broad deployment of its Ferox Flow reactive zero valent ion (ZVI) powder. The newly launched Ferox Flow technology has been specified as the amendment choice for a number of large-scale in situ chemical reduction projects last year, with a total of 18 projects in the United States and Canada completed in 2012. According to Hepure, Ferox Flow is extremely effective in reducing concentration of volatile organic compounds (VOCs) and metals in soil and groundwater. The company claims the technology can achieve 90% reduction in contaminant concentrations after a single injection event. In addition, Ferox Flow is a viable sustainable remediation solution based largely on the fact that it is made from recycled materials and has no negative environmental impact to the existing soil properties on which it is exposed.

Technology Merit

INFORMATION TECHNOLOGY

RegScan, Inc. (Williamsport, PA), in collaboration with the Independent Petroleum Association of America, for deployment of their Environmental Compliance System beyond its original Pennsylvania market. The system is an on-line timeline that chronologically outlines all the regulatory requirements for oil and gas exploration and production. It is fully integrated with the RegScan GCS 2.0 research databases, which contain volumes of state and federal regulations. What began in October 2011 with a Pennsylvania-specific product has now been expanded into a complete line of suites covering 10 states in every major U.S. shale play. National coverage includes modules for the U.S. Bureau of Land Management and the U.S. Environmental Protection Agency (EPA), which was announced in June 2012, in response to the approval of the first-ever National Emission Standards for Hazardous Air Pollutants (NESHAP) that targeted the natural gas industry. RegScan also made the EPA module available as a stand-alone product to augment coverage in jurisdictions where comprehensive state suites were not available.

Strategic Information for a Changing Industry

Groundwater & Environmental Services, Inc. (GES; Neptune, NJ) for deployment of real-time remote monitoring systems to observe and analyze data on groundwater, surface water, and air emissions at project sites. In 2012 GES successfully used remote monitoring and data trend analyses on a variety of projects. On one project, GES collected data to understand natural methane fluctuations in groundwater and well headspace, demonstrating how those data correlate to other parameters such as weather changes and water well pumping. GES also recently implemented real-time monitoring on a project that utilizes solar-powered weather stations installed at unconventional gas well drilling sites. The real-time data is being used to notify staff, via e-mail alarm notifications, of potentially unsafe conditions (e.g., high winds). Rainfall data (programmed with daily and hourly rainfall alarms) is used to initiate erosion and sediment control enhancements and inspections. All data can be viewed remotely by computer or smartphone.

Business Achievement

NEW PRACTICE AREAS

AECOM Technology Corp. (Los Angeles, CA) for consolidating its acoustic expertise and service offering into a new design-led practice. A team of 125 global acoustic experts, including noise modeling and mapping teams in the United Kingdom, underwater acoustics specialists in Australia, and vibration modeling, measurement, and control specialists in North America, addresses a broad range of acoustic problems, such as the impact of noise on fish or other marine species when designing pilings for new road systems. Using expertise from a U.K.-based center of excellence in auralization, under an alliance with York University, AECOM can create high-end auralizations required by public and private clients, including regional government agencies, utilities, performing arts facilities, transportation agencies, and infrastructure groups. AECOM's acoustics practice also uses smart technology; for example, for noise and vibration monitoring on a major sewer project in Ontario, AECOM installed 17 solar-powered monitors

along the corridor and sent live alerts to project teams whenever noise or vibration limits were exceeded, so the impacts on area residents could be avoided.

EA Engineering, Science, and Technology, Inc. (Hunt Valley, MD) for its establishment of a new practice in the area of stormwater program management for state transportation agencies. In 2012, EA generated more than \$10 million in contract value in this area and achieved national prominence through the preparation of the *2012 National Synthesis on Pollutant Load Reductions Strategies for Highway TMDLs and BMPs for Environmental Compliance and Stewardship at Highway Transportation Maintenance Facilities* document for the Transportation Research Board. The practice is an outgrowth of EA's work in 2009 as a team member on a multi-million dollar contract to manage the Hawaii Department of Transportation's state-wide stormwater management program. In 2012, the practice took off through the award of a multi-year, multi-million dollar contract to manage the Port of Seattle's National Pollutant Discharge Elimination System (NPDES) program. EA was also selected for a second \$2 million contract from the Maryland Transportation Authority to develop guidelines for estimating Total Maximum Daily Load (TMDL) baseline pollutant loadings and reductions achieved through the implementation of best management practices (BMPs).

Business Achievement

INTERNATIONAL EXPANSION

CH2M HILL (Denver, CO) for expanding into a new international service area—managing, monitoring, and reducing threats from biological warfare materials and indigenous diseases. This integrated practice of threat containment, nation building, public health, and economic sustainability began in the country of Georgia, when the U.S. Defense Threat Reduction Agency (DTRA) asked CH2M HILL to take over a project from a previous contractor and turn around performance. CH2M HILL improved biological safety and security, provided hazard and public health training, and established

cooperative biological research programs, creating over 150 technology jobs in Georgia. In 2012, CH2M HILL substantially completed the remediation and commissioning of a major diagnostic and research laboratory (BSL-3) that handles especially dangerous pathogens. The firm extended this practice into Armenia and Tanzania in 2012, becoming the first company to win a task order in Africa under DTRA's Biological Threat Reduction Integrating Contract. Revenue from the DTRA projects is expected to exceed \$200 million on this contract, for growth of 30%.

EcoAnalysts, Inc. (Moscow, ID) for significantly increasing its international revenue in 2012 through a 125% increase in Canadian market sales, with additional key programs in Guam, Malaysia, and Israel. EcoAnalysts is a certified small business based in northern Idaho and operates the largest macroinvertebrate laboratory in North America. With five offices in the United States and one in Canada, the company provides global bioassessment and biodiversity services for government, state, municipality, and private sector clients. EcoAnalysts was able to grow its total international market revenue from \$458,777 in 2011 to \$1,152,274 in 2012 for a total increase of 151%. This growth was achieved through client diversification, development of existing strategic accounts, the addition of new, high-profile accounts, and an increase in government contracting. Specific 2012 projects include fast-track processing of offshore marine samples from the east Mediterranean Sea, conducting a biodiversity workshop and training of oil and gas clients in Kuala Lumpur, and numerous bioassessment projects from freshwater and estuarine habitats throughout Canada.

Columbia Technologies (Baltimore, MD) for establishing operations and formal partnerships in both Mexico and Brazil, thereby expanding its business model into Latin America in 2012. Columbia's international expansion resulted in a staff increase of more than 40% during 2012 to support global operations of high-resolution, real-time support for site charac-

terization. Expanding into Mexico and Brazil extended Columbia's international portfolio to more than 1,000 global project opportunities throughout Canada, Italy, Japan, New Zealand and 45 out of the 50 United States. International activity added 20% to Columbia's revenue base for the 12-month period. In 2012, Columbia successfully completed over 100 projects throughout North America and in Brazil for 54 different clients, with 63% of those firms being repeat customers. Since 1999, COLUMBIA has contracted with 15 of 20, 26 of 40, and 39 of 60 firms from Environmental Business International's top-rated environmental consulting and engineering firms on a diverse range of commercial, federal, and military sites.

Mabbett & Associates Ltd. (Glasgow, Scotland), the Europe-based sister company of **Mabbett & Associates, Inc.** (Bedford, MA), for increasing sales from £169,000 in 2009 to £413,000 in 2012 (about \$673,190 U.S.), achieving these goals during a period of severe recession in Europe and without external financial institution support. Mabbett won nationally funded, multi-year tenders in Northern Ireland and has become one of the leading environmental consultancies in Northern Ireland with a full-time staff of three employees. The company also competed and was awarded one of a few limited corporate contracts for GE International, initially for all GE entities located in the Republic of Ireland and the United Kingdom. In the spring of 2012, the GE contract was amended to include mainland Europe, the Middle East, and Africa. Mabbett recently completed projects in Dubai and Saudi Arabia with a project pending in Kuwait. Mabbett has also successfully supported the government of Israel's Ministry of Environmental Protection in partnership with a leading Tel Aviv-based environmental consultancy. This work has resulted in several multi-year framework project wins, specifically focusing on the development of a nation-wide integrated pollution prevention and control program modeled on existing European Union legislation and the provision of engineered solutions to assist regulated multi-media emitters.

Business Achievement

INDUSTRY LEADERSHIP

2020 Environmental Group (San Francisco, CA) for opening new paths to strategic growth and shareholder value for environmental firms across California and the West. 2020 has created a new discipline of management consulting that bridges the institutional knowledge of this mature industry with new tools for the next generation of environmental business leaders. 2020's partners have provided thought leadership to a growing list of small and mid-size firms on planning and executing new business management and performance strategies. Their efforts have helped owners and management teams identify the essential value within in their own companies and re-evaluate their growth potential. The firm's executive team includes veterans of the environmental industry and have been instrumental in connecting the industry to strategic acquisition opportunities, private equity investors, and the management expertise needed to maximize external market value. In the last two years, 2020 has served as the management consultants to 17 environmental firms, including advisors on 12 buy- and sell-side M&A transactions.

Golder Associates (Atlanta, GA), for the formation of an internal Professional Development Group (PDG), an integrated national community for entry- to mid-level staff across all career streams to engage in Golder by working together to improve their careers and those of their colleagues. Formed through a grass-roots effort in February 2012, the PDG was quickly accepted in the workplace across all levels of the organization. Golder's PDG program has a charter coordinated nationally by 12 regional PDG representatives and one senior management mentor. In the first year of the program, the PDG initiative formed 30 local office chapters and developed tools to facilitate internal networking and collaboration. The PDG has worked with management to improve and spread effective mentoring programs nationally, and has facilitated increased engagement with senior principals and associates. The

PDG has provided national feedback on Golder's human resources processes and championed continuing education in business development for PDG members.

Business Achievement

SOCIAL CONTRIBUTION

The **Global Environmental Management Initiative** (GEMI; Washington, DC), an organization focused on creating environmental sustainability solutions for business, for developing the GEMI Local Water Tool (LWT) and GEMI LWT for Oil and Gas, a pair of tools designed help companies and organizations identify the external impacts, business risks, and opportunities related to water use and discharge at a specific site or operation. The GEMI LWT was developed by 52 representatives of GEMI companies and representatives from the 16 LWT Project Participant companies, and with the assistance of CH2M HILL. The tool, which is available for free, was also developed in cooperation with the World Business Council on Sustainable Development (WBCSD) to link to the WBCSD Global Water Tool (GWT), and with the International Petroleum Industry Environmental Conservation Association (IPIECA) to link to the IPIECA GWT for Oil and Gas.

Marstel-Day, LLC (Fredericksburg, VA) for a series of partnerships with the Fredericksburg community. First, under an educational partnership, Marstel-Day continued its nine-year history of recruiting student interns from the University of Mary Washington to work on its environmental projects, and it joined forces with its Dean of Arts and Sciences to launch an initiative called a Climate, Environment and Readiness (CLEAR) Plan for the region. Second, Marstel-Day forged an economic partnership with the city to stimulate economic development through the company's HUBZone status and to demonstrate through HUBZone workshops that economically disadvantaged areas can grow through green initiatives. Third, Marstel-Day's capped off 10 years of community tree-planting on Earth Day, 2012, by planting an additional 96 trees in Fredericksburg.

Korea Environment Corp. (Keco; Incheon, South Korea) for providing relief compensation to victims of asbestos and their families, starting from 2012, in the amount of 150 billion won (\$13.6 million) per year. In Korea, 465 people died from asbestos malignant mesothelioma from 1993 to 2008 and more than 1 billion cases are expected to be reported over the next 30 years. Through its Asbestos Damage Relief Center, which was established in 2011, Keco invested 744 billion

won (\$62 million) to help victims of asbestos by investigating health conditions and operating a damage reporting center and medical research center. South Korea is one of the six countries (including Belgium, France, Japan, Netherlands, and the United Kingdom) that conduct asbestos damage relief through this system. Korea is also the second country to broaden the types of relief compensation for victims of malignant mesothelioma, lung cancer, and other asbestos-related diseases. ■

EBJ's What's In and What's Out for 2013

OUT - 2012	IN - 2013
Fiscal cliff diving	Fiscal bungee-jumping (multiple times)
Debt ceiling disco dance-a-thon	Credit downgrade
Payroll tax cut	Tax hikes for millionaires
Budget sequestration threat	Budget sequestration
Quantitative Easing 3 (QE3)	QE 4... or 5?
Wind tax credit expiration (again)	Wind tax credit renewal (only 1 year)
Dark Night Rises	Stock Market Falls
Hunger Games (in Panem)	Catching Fire (in District 12)
Euro on the brink... still	A two-tiered Euro ["Eur-in" and a "Eur-out"]
EPA Air Rules (CASPR, CMER: vacated in court)	Another round of EPA Rules
EPA regulations on GHGs	Lawsuits to overturn EPA GHG rules
Useless UN COP Meetings (GHG Circuses)	Climate adaptation disaster relief funding
Occupy Wall Street	Occupy... what?
Sarkozy's UMP	Hollande's Les Miserables
Democrats in Japan	Abe's LDP in Tokyo
Nuclear power in Germany	Imported power from reactors in France
Biofuels from Corn	Biofuels from anything else
Troops in Afghanistan	US Back to the boats
Marcellus gas production	Artic mineral mining
Brownfields	BRAC (2014?)
Fracking for gas	Fracking for tight oil
Russian orphans	U.S. Hispanic students
Pocket Passers	Read Option QBs
The Mannings (Eli, Peyton, Archie)	The Harbaughs (Jim, John, Jack)
California Off the Cliff	California In Surplus
California Gridlock	California Super-Majority
Iraq	Iran
NeoCons	NeoLibs
Chinese Industrial Economy	Chinese Consumer Economy
Email Marketing	Integrated Social Analytics
Banning Use of Facebook	Embedded Employee Engagement Tools
Desktops	Tablets & SmartPhones; "Phablets"

Compiled by EBJ Federal Analyst Andy Paterson and EBJ Editors Grant Ferrier & George Stubbs; Paterson will present his political & economic overview in the opening Politics, Policy & Market Factors session at EBJ's Environmental Industry Summit on March 6, 2013 in San Diego.

ABSORBING HALCROW, BALANCE OF BUSINESS FOR CH2M HILL CONTINUES TO SHIFT TOWARDS INTERNATIONAL MARKETS

CH2M HILL (Denver, CO) is a global leader in consulting, design, design-build, operations, and program management for government, civil, industrial, and energy clients, ranking at number one on Engineering News-Record's 2012 list of the top 200 environmental firms. The company's work is concentrated in the areas of water, transportation, environmental, energy, facilities, and resources. It generated about \$6.4 billion in annual revenue in 2012 and, following the November 2011 acquisition of Halcrow, employs almost 31,000 people working in more than 60 countries worldwide. CH2M HILL has also been recognized on the Fortune magazine's "100 Best Companies to Work For" list five times. John Mogge is senior vice president in CH2M HILL's environmental business group.

EBJ: What kind of year was 2012 in terms of revenue growth and profitability?

John Mogge: It's been a very good year. We weren't sure about it when we started, but we focused on our acquisition of Halcrow in 2011, and the synergies from that are showing up in almost every area of the company.

That deal added about 5,500 employees, and almost 80% of those were outside of the U.S. That's allowed us to participate in a much broader range of engagements. For example, some of the work in the Middle East would not have been possible without their broad footprint in the area. We're also involved in high-speed rail in a couple of locations—the United Kingdom and China—which has translated into a whole new set of career opportunities for our employees, with good results for the firm.

In the environmental and water markets, 2012 was a really good year, especially in what we call our traditional practice areas, and in several new and emerging practice areas. For the environmental business, we've moved the top line from \$680 million in 2011 to almost \$800 million this year. We're still booking work, but we'll be just shy of that level.

We have a good contract backlog of well over \$500 million going into 2013. That contracted backlog provides certainty around long-term growth for us. About 80% of what we want to do going forward is already contracted. I think it's safe to say that 2012 will be a record year for growth

and profitability for the environmental services group.

The base of our business, both commercial and federal, is still in the U.S even though we have a significant international footprint now. However, with Halcrow and its engagements, 2012 was a turning point for our international operations. If you look back at the percentage of revenue in environmental services, in 2011 we were probably at about an 80/20 split in terms of U.S. versus international business. In 2012, it's closer to 70/30, and with our contracted backlog, we'll be in the 60/40 area within the next two years. So we're changing from a U.S.-centric business to more of a global business.

EBJ: What client sectors or regions provided the best opportunities, and what factors were driving those opportunities?

J.M.: You'll recall in our discussion last year, I referred to emerging practice areas such as threat management. Last year, we secured and executed our program in the Republic of Georgia for the U.S. Defense Threat Reduction Agency (DTRA). We secured our first assignment there, with a fairly large contingent in Tbilisi.

This year, we were successful in winning two more assignments concurrent with that—a startup program in Tanzania, and another getting under way in Armenia, similar to what we're doing in Georgia. The three of those projects make us, I think, the largest contractor for DTRA. That contracted work represents a couple hundred million dollars over five years.

That's huge for us. It's really reshaped our business.

The threat reduction segment is a very interesting business. There's a strong correlation with public health, the containment of certain disease vectors, and veterinary science, and how the agricultural sectors of these countries have to change in order to enter the free markets in Europe. Right now, they haven't been able to prove that they are able to contain extremely dangerous pathogens and viruses.

In other areas, we've been able to secure some of that year-over-year growth in oil and gas, mining, and chemicals/pharmaceuticals.

If you step back and look at what else is changing, the external drivers we've talked about in the past remain. We're seeing accelerated growth in the resource areas as well as climate change impacts, and then economic competitiveness is a driver for our sustainability practice. Boards have realized that, to be successful, they have to have a sustainability strategy. We've been helping them with this, and gaining a lot of new clients in the process.

EBJ: What growth are you forecasting for next year and beyond? What and where are the key areas of opportunity that your company will be pursuing?

J.M.: In the environmental services arena, we're going to shoot for \$900 million next year—so, pretty aggressive growth. We expect to slow down after 2015, but we're pushing for \$1 billion in revenue for the environmental business by then. We think that's achievable in the overall market. I ask our people if, in a \$264 billion global market, can we continue to grow at this rate? I think we can, and they wholeheartedly agree.

EBJ: Has it become easier or more difficult to maintain profitability in your segment of the industry? If the latter, what are the factors putting pressure on margins, and what steps are you taking to ensure profitability?

J.M.: If you focus on just the environmental consulting and engineering piece, it's all about people. We've hired over 300 people in 2012. Adding that many staff

can add some costs, but we're pretty careful about managing that function. Our new hires are needed to deliver on our projects and client promises and many of them lead us to new clients in their areas of expertise.

This year, we launched an environmental technology innovation grant program. I challenged our staff to bring me their best ideas, for us to pick new areas to invest in. We ended up with 29 submittals, all of which were great. We funded a significant number of those, and each is designed to drive technical innovation for client-based needs. The return on that investment has been fantastic, and our clients are ecstatic about it.

We've also secured two Department of Defense (DOD) environmental technology certification grants for our underwater munitions response practice. We're developing new capabilities with those grants some of which identify the precise locations of the munitions and then neutralize them without putting people in the water, which is extremely dangerous.

So in terms of the profitability question, we're thinking about it differently. We're saying that one of the ways to be profitable is to be the best, hire the best, and bring new ideas, and that approach is paying off for us.

EBJ: *Although the recession has been officially declared to be "over," are you seeing any lingering impacts?*

J.M.: As I think about the recession a couple of thoughts come to mind. The first is nimbleness. Our environmental business leadership team has been very active in reshaping our operations to meet the needs of our clients and to secure new clients. The second thought is the continued environmental industry consolidation. Through the Halcrow acquisition, we've certainly been part of that, and I think we've been successful in managing our growth through acquisition in terms of focusing the synergies on meeting client needs and reducing unneeded cost structure. While we've been extremely fortunate in many other ways, I'm comfortable in saying that we're not seeing any lingering impacts in the way we approached the market during this period.

It could have been rough without the Halcrow acquisition, and without the right strategies, it could have been very difficult, but we never really experienced the downturn in the environmental area. We doubled-down on our focus on people. Diversifying our service areas, we tried hard to provide thought leadership for the industry. However, the focus on our people has allowed us to push through this period with reasonable success for our employee owners.

EBJ: *What are the biggest challenges your company faces from an external market perspective, and from an internal management perspective?*

Even though government organizations may change in response to the budgets that are enacted, the problems that they are there to solve don't go away.

J.M.: Internally, and externally to some extent in this business, you can't separate people from profitability. We are a professional services firm. We've created a significant focus on staff development, learning, and training. All of that is showing a positive impact on our profit margins. We consider that a must-do, in terms of maintaining and enhancing the bottom line for the firm.

Externally, it's the same old principle—focus on our clients. We do a lot more listening than talking. To us, it is just a matter of keeping our talent, staying focused on our clients' needs and problems, and building our project teams. That's what we work hard on every day. If you take your eye off of any of those balls, you're going to have a problem.

EBJ: *What is your company's strategy for growth over the next five years? If acquisition is part of that strategy, what strategic goals will your acquisitions be designed to achieve?*

J.M.: The company's view on acquisition is really informed by our private

ownership stance, and we maintain a very strong stance in terms of our cash position—probably substantially different from what you would see in a public firm. Our viewpoint about acquisition is to be open, but opportunistic. We don't believe that acquisition for pure growth is the right thing for us. If we find the right firm, working for the right clients, with the right service sets and the right culture, we'll act on it. But it's opportunistic. It's strategy-driven.

EBJ: *Given the federal budget situation, how concerned are you about staff cutbacks at EPA and other federal agency and department staff, and the potential for slowdowns in programs or rollbacks in enforcement?*

J.M.: Even though government organizations may change in response to the budgets that are enacted, the problems that they are there to solve don't go away. We may have to find the paths to our opportunities through different means, but I'd like to think we have the people who understand how to define the problem and come forward with reasonable solutions. Federal funding for programs may be stretched, and those programs may take more time, but going back to our strategy for growth, that's part of why we've diversified our service offerings more significantly and are pretty rapidly realigning our U.S./international balance.

We'll always be a strong service provider for the U.S. federal government. I don't see that changing, but I can see us doing a lot more work in other geographies and for other clients.

EBJ: *What are the key energy and environmental policy issues that the U.S. and other countries are facing today, and what kinds of policies would you like to see pursued?*

J.M.: It's fair to say that the company is really policy agnostic. That's not to say we're unaware of what's going on, and how it shapes our business. We focus more on understanding policies rather than shaping or changing them. We have an office in DC, but we're not a big lobbying activity, like a defense integrator would be.

What we prefer are the opportunities

in situations like the post-Sandy environment, where we've been asked to offer mitigation-based technologies for the future. As an engineering company, that's where we want to be. We've had a bunch of our coastal engineers and coastal hardening and water structure experts providing ideas around the surge challenges around Long Island. It's a big problem, and a lot of other cities are going to have the same problem.

I sit on a resilience board here in Tampa Bay, which hasn't had a major storm directed straight up the bay for a long, long time, and the downtown area could be easily compromised. Coming up with some ideas to make the bay area more resilient is quite a challenge.

EBJ: As an executive at a company that's dedicated to environmental protection and sustainability, does it concern you that the best opportunities for your industry right now are coming from serving companies that are extracting resources in more remote, fragile, and hazardous places in the world (e.g., ocean deepwaters, the Arctic, nations with ongoing unrest)? What kind of balance do you think we can achieve between environmental protection and preservation on the one hand, and resource development to meet global demand on the other?

J.M.: It's a fair question, and it deserves a very thoughtful response. I think I can speak for the company here: it's a historical reality that the global economy is driven on a resource-extraction basis. The fact that environment and economic values are competing here, is exactly what we see as a service opportunity. We think we're very well equipped to deal with the toughest environmental challenges in the world. The concept of resource depletion presents some limits on what the extractive industries can do, but our environmental sustainability practice allows us to understand, from a value-based decision-making perspective, how to advise all of our clients on better balancing the social, economic, and environmental aspects of their operations.

A great deal of my focus is on building decision-support tools for our clients in this area. Today in many parts of the world, it is not enough to just look at a

simple return on investment. Our clients expect us to do much more than that, and we have a suite of sustainability decision support tools (intellectual property) that we use with our clients in a very balanced way to produce the outcomes that help offset the clients' need to grow with a minimum impact on the environment.

Having said that, one service area we try to offer is a view of resource extraction from a perspective of how things will be left when the extraction operations are complete. We're working for a large mining operation outside the U.S. right now, and this client has asked to know, before their first shovels hit the ground, what will be needed to restore the land. All of that is part of their permitting and the decision-making processes. We're helping them plan

operations that will achieve their business objectives in a manner that most stakeholders will accept.

I'd also offer that technology matters, and in this case, it is the high-end decision support tools from our sustainability practice. We really try hard to understand all of the various impacts using deep skills and up-to-date technologies. This is where we've added a lot of new talent to the company, and added a lot to our technology toolbox.

You can't change the way the economy operates, but you can change how you operate within the economy. It's informed and caring clients, tools, technologies, and practices that will make a difference, and yield outcomes that are truly sustainable over the long haul. ■

SOLID GROWTH YEAR FOR MWH, EVEN AS INFRASTRUCTURE FUNDING CHALLENGES REMAIN

MWH Global (Broomfield, CO) is a global engineering, construction, and strategic consulting firm in what the company refers to as the "wet infrastructure" sector, encompassing water supply, wastewater treatment, and stormwater management. It is a private, employee-owned firm with nearly 7,500 professionals, including program managers, business consultants, engineers, geologists, scientists, technologists, and regulatory experts, operating from 80 offices in 31 countries on six continents. Alan Krause is MWH's president and CEO, and on December 14, 2012, he assumed the title of chairman of the board.

EBJ: MWH has a definitive mission statement, built around the value of water to the global economy, and adaptation to a changing climate is a major part of that mission. Please describe it for us.

Alan Krause: We believe water is critical to growth, economic and social development, poverty reduction, and equity in our world, which must prepare to support an estimated nine billion people by 2050. We're addressing the critical challenges facing our planet, including water scarcity, renewable energy sources to power our communities, transportation, energy management, and aging infrastructure in our urban areas. We help our clients effectively plan and manage the heavy demands on their infrastructure, preserve natural resources, and embrace technical advancements.

At any given time, we're working for federal, industrial, and municipal clients on hundreds of water-related and consulting projects around the world, including municipal water systems, dams, hydro-power projects, water management for the natural resources industry, transportation planning, renewable power, energy distribution, environmental services and disaster planning/recovery.

As part of our firm's purpose, which we refer to as "Building a Better World," we aspire to better the lives of those we touch and improve communities around the world where we live and work through our personal and professional contributions. Our employees are involved citizens who dedicate their time and professional skills to address some of the world's most complex humanitarian challenges.

At the core of this vision is our Climate Change Commitment Education Program, under which our employees educate children each year around the world on simple ways they can save water and energy to protect the future of our planet. Since 2007, over 14,500 students from 10 countries have participated in this program.

EBJ: What kind of year was 2012 for the company in terms of revenue growth and profitability?

A.K.: Our books are not yet closed for this year, so we can't be specific on our 2012 performance. However, through the first three quarters of 2012, we had the best revenue year in the company's history and have achieved profitability at levels we have not seen since before the recession.

EBJ: What client sectors or regions provided the best opportunities, and what factors were driving those opportunities?

A.K.: MWH continues to stay focused on the water and wet infrastructure space. We believe this space offers tremendous growth opportunities to expand our capabilities and our market share. All of the sectors we serve, including local government, municipalities, utilities, private sector, and industrial clients, as well as our energy clients and mining customers, benefited from the skills that we bring in water.

The key sectors that were strong in 2012 included our natural resource business, which primarily supports the global mining industry; our hydropower division, which supports renewable energy at a low cost; our construction business, which has a very strong reputation in the U.S. and U.K. on water-related projects; and finally, our software business (Innovyze), which is a global leader in providing water-related software.

In addition to seeing this strength the sectors we serve and the geographies in which we operate, we are continuing to grow our asset management business and our management consulting capabilities housed within our Business Solutions Group for all of our customers.

EBJ: What growth are you forecasting for next year and beyond? What and where are the key areas of opportunity?

A.K.: MWH remains cautiously optimistic about 2013 despite the fact that there is economic turbulence in most of the geographies we currently operate. We are forecasting modest growth in 2013, which we believe, barring economic upheaval in key sectors where we operate, will improve over the next two to three years. We target growth of about 10% year over year in our stock value and expect to see our revenues and profits pacing at an equal amount.

The key areas of opportunity we pursue today, and will continue to pursue in the future, will involve adding higher-value capabilities and expertise to our service offerings in water. Those include asset management, predictive analytics, management consulting capabilities to support our planning and design in construction support and construction for our customers.

We see different markets where we operate today behaving differently depending on the global economy. For example, if we see softening of the commodities market, driven largely by a reduction in GDP growth in China, it is likely that the natural resource sector, which has been strong for us over the last several years, will not continue to grow at the rate we've experienced in the past. Conversely, as our water and wastewater utilities continue to have limited funds to invest in infrastructure, there will be unmet needs that eventually have to be addressed.

EBJ: Has it become easier or more difficult to maintain profitability in your segment of the industry? If the latter, what are the factors putting pressure on margins, and what steps are you taking to ensure profitability?

A.K.: In the traditional engineering practice that we provide to our clients, in many cases, that market has become more difficult to maintain margins and more competitive as clients commoditize engineering. Of course, if MWH can continue to provide excellent value-added solutions, our clients have no hesitation to pay for this added value. In our engineering practice, as commoditization pressure build, we are using our integrated global workforce to improve efficiency, manage our cost structure, and drive improved delivery and speed and innovation.

EBJ: Although the recession has been officially declared to be "over," are you seeing any lingering impacts?

A.K.: Yes, the first place we see this is in the construction business. As unemployment has continued to be higher than it should, this has led to less investment in utilities and infrastructure, which has reduced the opportunities for new build in the construction industries that we serve.

We don't believe that we are going to see significant increase in both construction opportunities and pricing until we see an improvement in the economic situation, primarily in the U.S. and U.K., where our construction business operates. Our Europe/Africa operation is also experiencing a very competitive market, especially in northern Europe, where the Euro crisis continues to plague the region.

EBJ: In the United States, are you seeing any favorable signs in terms of increased support for water/wastewater infrastructure investment from policy makers and legislators? What hopes do you have that we will soon begin to find ways to close the "infrastructure gap" in water/wastewater?

A.K.: The EPA has identified significant funding gaps in both water and wastewater to the tune of hundreds of billions of dollars that need to be spent to address aging infrastructure in both water/wastewater. Due to the economic situation that many of our municipal state and government clients are facing, we remain cautious that clients will begin to reinvest in infrastructure, which would require adjustment in rates to their customers.

We do see opportunities in "P3s" (public/private partnerships) in the water/wastewater industry, but there remains a financing gap between cost of municipal bonds versus the hurdle rates for private investment that makes P3's perhaps not as attractive as appear.

EBJ: How high is water/wastewater infrastructure compared with other types of infrastructure development in terms of priorities?

A.K.: So far in the U.S., the stimulus money has not gone to water/wastewater

infrastructure and has been allocated more to “shovel ready” transportation related projects. As projects begin to fail due to lack of investment in the water/wastewater industry, I suspect there will gradually be more investment in this sector. However, when you compare water/wastewater infrastructure with other forms of infrastructure including transportation, it is generally a lower priority.

EBJ: What are the biggest challenges your company faces from an external market perspective (i.e., in business development and client service)? What are the biggest challenges from an internal management perspective (e.g., finding and keeping talent, leadership succession, controlling costs, etc.)?

A.K.: From an external market perspective, we are seeing a different set of competitors than we have traditionally seen in the past. Today we see the management consulting companies, i.e., McKinsey, Boston Consulting, and large management consulting service providers such as IBM, entering the water space. These companies come with a tremendous footprint, client rolodex, and management consulting skills that traditional engineering companies don't have.

Conversely, they lack the content knowledge of water that we bring to the equation. We recognize that these external forces must be addressed, and our approach is to duplicate the management consulting skills that they bring and augment those with our deep understanding and rich knowledge of the water industry, our clients and the technical challenges that face that market.

The biggest internal challenge for us as a consulting company is talent management. Our talent walks in and out the door, and as a consulting firm, our resources are our people. The engineering industry has a voluntary and involuntary turnover rate that averages approximately 12%. For a company our size, with 8,000 employees, this equates to a significant amount of employees lost each year. When we add an expectation to grow year over year by 10 to 15%, talent management becomes a significant challenge for the organization to achieve our growth objectives. ■

STELL ENVIRONMENTAL OVERCOMES MULTIPLE HURDLES TO SUCCEED IN DOD CONTRACTING AS A WOMAN-OWNED BUSINESS

Stell Environmental Enterprises, Inc. (Elverson, PA) is a certified woman-owned and 8(a) environmental engineering, planning, and consulting company employing 100 people at main offices in Pennsylvania and Texas and at military facilities throughout the nation. The company provides services in three main areas—restoration, including investigation through remediation; compliance and planning, including National Environmental Policy Act (NEPA), natural and cultural resources, and facility auditing services; and technical support services, which encompasses long-term on-site program support at military bases. Stell Environmental's primary clients include all branches of the Department of Defense (DOD) and transportation agencies, primarily in the Northeast. In 2013, the firm is expecting to add offices in Seattle, Washington; in San Antonio and El Paso, Texas; and at Fort Carson in Colorado. Mary Jane Stell is the company's founder and president.

EBJ: What kind of year has 2012 been for the company in terms of revenue growth and profitability?

Mary Jane Stell: It was a great year for us, both in growth and profitability. We went from \$6 million to nearly \$14 million in revenue, and profitability was about 12%. The profitability is pretty steady, because we do firm fixed-price jobs. It can go higher or lower, depending on how you manage projects, which we do very well. For 2013, we're projecting over 50% growth with similar profitability.

EBJ: What were the keys to that excellent growth rate?

M.J.S.: We made two key hires two years ago. In 2010, we hired two very senior program managers who had the relationships and abilities to write proposals and win a lot of DOD contracts, and they helped us grow both contract backlog and task orders. What we saw in late 2011 and through 2012 was the benefits of those hires.

EBJ: What are the principal challenges you face as a woman-owned business under the Small Business Administration's 8(a) program, and how are you addressing them?

M.J.S.: I think there are three main challenges that I and others like me face. The first is, the environmental engineering industry is still very white-male dominated. That's very true for the DOD contracting world, where many of the leaders have

come out of the military. It's also a very close-knit community. Everybody knows everybody, so it's very difficult to get accepted into that circle, particularly as a woman.

I started as a geologist and as a contractor working in this sector and advanced to a lead geologist. I learned how to do this work from the project level up, and I eventually advanced into program management. With the benefit of this understanding, I started my business in 2004. I had to then be accepted into this male-dominated group, but my technical background and experience gave me credibility.

I started joining the professional trade associations and attended the meetings regularly, and I attended other business forums so that I could interact with other senior people. Through those interfaces, you gain relationships, and that's the key.

As for the second challenge, once you have a business, there is still a stigma attached to 8(a) and woman-owned small businesses. People think you are being given an unfair advantage.

There is a portion of the 8(a) program under which you can be a woman owner and demonstrate social and economic disadvantage in your personal employment history, and count that personal history toward your firm's status. This is the avenue I used. I didn't get the promotions, raises, and opportunities that my male counterparts did, some of whom were not as senior or did not have the longevity I had.

Using the lessons learned during my prior professional history, I tried to present myself and my company in the most professional way I could—using professional marketing materials and professional branding to project the image of capability and reliability. That's the only way I found to overcome the 8(a) stigma—that and providing high-quality work.

That speaks to the third challenge I encounter—people think woman-owned and 8(a) businesses don't have the resources to succeed, or do poor-quality work. I've addressed this third stigma—you can't deliver—by hiring and developing a senior management team with broad experience. These program managers have assigned appropriate staff to each project and are responsible for them.

We have a very rigorous quality assurance program that every deliverable goes through, to be sure we have met the scope and reporting requirements of each job. Our Architect-Engineer Contract Administration Support System (ACASS) and Contractor Performance and Assessment Reporting System (CPARS) ratings, the DOD scorecards, are over 85% "excellent" and "very good." This demonstrated quality is critical to our past and future growth.

EBJ: What factors led your firm to pursue a mentor/protégé relationship? What challenges did you face in this process?

M.J.S.: The mentor is the experienced company, and the protégé is the company being assisted in this relationship. The 8(a) program is a nine-year business development program, and the purpose of it is to give assistance such that a company can stand on its own by the end of that time in the small-business marketplace. You have nine years to gain the infrastructure and systems and experience to compete with everybody else. When you're very small, that can be hard to achieve. The mentor invests time and energy to help you get to that self-sustaining point.

What we'd decided is, although we'd been very successful, we still wanted to develop systems that can be robust enough to allow us to stand on our own. We're about a year and a half away from completing this process.

Those are the reasons that led us to seek out a mentor. Once you become an 8(a)-certified small business, every large business you talk to says, "do you want to be our protégé." But many companies don't understand what that commitment means. These agreements are one-year long, and you set out some metrics detailing how they will help you in developing your business. It's a serious bond that can't be taken lightly.

You need a good relationship with a company that you are already working with. It has to be of the caliber and quality that you'd be willing to tie yourself to for a year or more. It's a very detailed relationship-building process you must go through before you're willing to say, yes, this is the company I want to make the commitment with.

"The small business preference is absolutely a real trend. There are a great many more small business contracts now than I've seen in my 20 years in this business."

We had found **e2M**, an eastern Pennsylvania firm that provided very similar services to those that we provide and had a similar corporate culture. They were a graduated 8(a) company that had developed into a successful small business. This is the path that our company hopes to follow, so they were a logical choice for a mentor.

While we were in discussions, **e2M** was acquired by **HDR Engineering**. We had been talking with **e2M** for two years, and over that time period, our managers worked with both **e2M** and **HDR**, and we finally selected **HDR** as our mentor. They have a very robust small-business program, and we believe that they will provide **Stell Environmental** with the assistance we need to succeed in the future.

EBJ: We're hearing that DOD and DOE contracting preferences are leaning towards providing more contracting oppor-

tunities for small business. Is this trend real? What are the challenges you face in pursuing those opportunities?

M.J.S.: The small business preference is absolutely a real trend. There are a great many more small business contracts now than I've seen in my 20 years in this business.

Every time they put out a solicitation, they put out a "sources sought" notice, which is essentially a survey. It's designed to allow small businesses to make the case for why they should be a prime on that contract. The DOD takes that survey, and they determine if a good pool of competitive small businesses exists, and how the contract will be set aside for each or a combination of the several small business categories.

The biggest challenge, as a small company, is the old Catch-22. They want an experienced company for the contract, but how do you get that experience without the contract? Usually, you start out as a subcontractor.

We won our first prime contract with DOD in 2006, and since then, we've used that experience to win more contracts, with the Army Corps of Engineers, the Navy, and other federal agencies. Now we have a very strong work history, especially for a company as young as we are. We have very robust corporate experience, and what that means for the government is that we're very low risk. We can execute on contracts, and they don't waste their money. And that allows us to win more work. But getting the first contract is always the hardest.

EBJ: What the key differences in the processes for winning 8(a) competitive contracts and sole-source contracts?

M.J.S.: The sole-source process is very different from the competitive contract process. To get a sole-source 8(a) contract, you need to know the buyer at an installation that has a need, a project, and that they want to give it to an 8(a) company, because that company has the right experience and expertise. You need to know who that buyer uses to execute their contracts, where that entity is located, and if a contracting official at that location is willing to give the contract to a specific 8(a). Some-

times the installation does the contracting, and sometimes it's the U.S. Army Corps of Engineers, or the Naval Facilities Engineering Command (NAVFAC), or the Air Force.

This contracting officer contacts the 8(a) company's Small Business Administration (SBA) business development specialist and sends a letter requesting that a particular contract be set aside for a selected 8(a) business, in this case Stell Environmental. The SBA business development specialist sends a letter back to the contracting officer accepting this particular contracting opportunity into the 8(a) program on behalf of Stell Environmental. The contracting officer then sends Stell Environmental an RFP with a detailed scope of work, and we then work directly with that contracting officer to provide a cost proposal, conduct negotiations, and sign a contract.

EBJ: Are sole-source opportunities growing? In what ways do you have to restructure the company organizationally in order to pursue these types of contracts?

M.J.S.: There was an audit by DOD in the spring of 2012, and it found a lot of contracts being awarded that were not competed. Our perception is that since then, the sole-source 8(a) opportunities have really decreased, and there's been a shift to more competitive contracts. For us, that's not necessarily a good thing. Who wouldn't want a sole-source contract? But you work within the system.

We didn't have to restructure our company to pursue either the competitive or sole-source 8(a) and woman-owned small business contracting opportunities. I understood the federal contracting markets, and we established the company in 2004 with me as the primary owner to take advantage of both set-aside programs.

EBJ: Do you expect any contraction in federal spending on environmental work as a result of the current budget concerns? How will potential cuts in federal agency staff affect your business?

M.J.S.: Those problems don't concern me as much as they might a company with less strategic focus. Federal facilities have to comply with federal and state environmental regulations. This is a primary area

of services that we provide to the government, so we see this market remaining relatively stable.

We see more small business opportunities coming out than ever before, although federal staff cuts in contracting offices may delay contract award processing. One service we provide is program support to military installations through staff located on site at their facilities. When the federal government decreases staff, the work still has to be done, so some of the tasks they need completed will be contracted to companies like us. That continues to be a source of opportunity for us. It can provide a long-term savings for the government, so it is a win-win situation.

EBJ: What's your outlook for 2013?

M.J.S.: For what we do, we believe that it's still going to be a very good year. Many of the services we provide fall under regulatory compliance, and this work must con-

tinue. Another driver is the fact that the government is pushing hard towards sustainability and energy efficiency, to bring down its long-term expenditures. We're involved in those kinds of services.

In addition, looking forward into the out years, we hear that there will be Base Realignment and Closure (BRAC) opportunities coming in 2015. There will be a whole new list of federal installations that will require environmental work before they can close, transfer, or realign. I've been doing that kind of work since 1988, and our company is very well positioned to assist. I see nothing but an upside for 2013. We are looking forward to a great year, and opportunities to provide similar services to new clients like the Navy, which is a big new client we just started working for in 2012. We'll be doing a lot more for them in the next couple of years, along with continued growth with our biggest client, the Army Corps of Engineers. ■

BUSINESS FOR IHS DRIVEN BY EMERGING REQUIREMENTS FOR NON-FINANCIAL PERFORMANCE REPORTING

IHS Inc. (Englewood, CO) is a global provider of information content, software, analytics and insight into environmental, health, safety (EHS) and other strategic information management domains – such as product life cycle, energy, macroeconomics and security – to asset- and capital-intensive industries. The company, which operates in 30 countries, began an aggressive move into the EHS markets in 2007 through a series of acquisitions, including EnvironMax, Inc., Dolphin Software, Inc., Environmental Software Providers (ESP), and Environmental Support Solutions, Inc. (ESS), and the acquisitions into the EHS and other domains have continued to the present day. Formerly with ESS, Scott Lockhart is IHS's vice president of EHS and Sustainability Solutions.

EBJ: Put your segment of the business into the context of IHS's overall organization for us. Where and how does it fit in?

Scott Lockhart: We have multiple business lines or workflows across several different industries. EHS and Sustainability is one of multiple workflows for customers in asset-intensive or capital-intensive industries. Our four primary targeted industries are energy and natural resources—encompassing oil and gas, power generation, and mining—and then chemicals, electronics, and transportation.

Those workflows fall into three areas,

addressing our clients' critical needs. You can think of those three workflow areas as a hierarchy, or a pyramid, with information and content at the bottom, software and analytics in the middle, and strategic insight at the top.

The company employs about more than 6,000 people, of which EHS and Sustainability has about 550 full-time employees. We don't break out revenue information for the separate workflow areas, but I can give you some overall data for the company. Our guidance for fiscal 2013 is estimated in range of \$1.64 billion to \$1.71

billion in revenue, including an overall organic growth rate expected to be 5 to 7% at the midpoint.

EBJ: What kind of year was 2012 in terms of revenue growth and profitability for your firm?

S.L.: For 2012, we're expecting to be about \$1.5 billion in revenue. I'd say our EHS and Sustainability business fared similarly to the business overall. We had good growth and profitability during this fiscal year, and the EHS and Sustainability workflow area is smaller and looking a bit better than the rest of the company. I'd say we had better growth than anyone in the industry, but our expectations for organic growth in this area are high, even in a down economy, so we were not where we'd like to be, which is at about 10% or above.

EBJ: What have been the key drivers for that growth?

S.L.: There have been several. What's driving most spending at the very top level has been preparation for non-financial reporting requirements. There are two elements of that trend: one, are companies comfortable making that kind of data available to the marketplace, and two, do they have the systems and processes in place to report those metrics? People are really focusing on the performance element rather than just the compliance data, looking at how their companies compare to others and how stakeholders—customers, investors, employees, suppliers—are reacting.

Some of the most important factors behind this trend are groups, like the International Integrated Reporting Council (IIRC), that are driving a whole new standard for reporting to shareholders. It's not just financial data or balance sheet information that's important now. The new reporting requirements demand a lot of performance data and, for asset-intensive companies, that includes environmental and safety metrics, equipment reliability, and related information, often referred to as "operational integrity" or "operational excellence" in these organizations.

These companies will take all the non-financial metrics they track, including information on environmental impacts, health, resource consumption, and equipment

condition, and put them into operational integrity systems. They look to ensure that they are operating those assets in a sustainable way. Five or ten years ago, people were only filing these kinds of reports to regulatory bodies. Now they are submitting these reports to shareholders, and non-financial elements are really driving mid-term to long-term stock performance.

For this kind of business, most of our sales as a result will go into the enterprise level. We rarely will sell into a single site.

EBJ: What trends are you seeing in the competitive dynamics of your business? Are you seeing more small, "boutique" companies entering this risk-information space?

S.L.: Due to the level at which we play, the smaller vendors don't generally compete with us. We're selling at the enterprise (or corporate) level into the large enterprises, which consider buying from smaller firms a risk.

That said, we like what some of these boutique companies do, because the messaging is right. The more people out there who are educating industry about these kinds of problems, the better off we will be.

So we don't run into those smaller players so much. Think of those three workflow areas I mentioned; the competition generally plays in one of those three areas. They're either a content provider, or a software provider, or an insight provider—essentially a consultant.

Our differentiator is the ability to provide all three of these as an integrated offering focused on achieving a specific business outcome for the customer. Otherwise, the customer has the burden of bringing all of them together. We are not an insight company, a software company, or a content company. We're a company that brings it all together, and when we compete, we'll typically compete with companies that are only focused on one of those areas.

EBJ: Is IHS still in "acquisition mode"? What were some of the major acquisitions of the past year? What strategic goals will future acquisitions be designed to fulfill?

S.L.: In the EHS and Sustainability

area, there were a couple recent acquisitions of note. First, IHS acquired **CyberRegs**, a content platform, from Citation Technologies, Inc. this past July.

That acquisition was important for a number of reasons. There was a study done by Accenture, which asked companies what concerns them most about the whole sustainability issue. The respondents said their top issue was, "How do we weave sustainability into our operations?"

We've partnered with Citation for about five years on the regulatory side. We might together provide a global energy company with all of the regulatory content they need, and that information plugs into our software to allow the company to assign tasks in the field that have bearing on compliance. The people at the plant level don't care about the specific law or regulation. They are focused on the named tasks that need to be done on their shift. The CyberRegs platform makes that connection between regulatory content and actions.

The CyberRegs platform deals not only with EHS regulations but also with internal standards, such as a mandate to reduce energy consumption by a certain level over a certain period of time. The company wants to know how that translates into actions that have to be taken every day. The CyberRegs platform provides the ability to do that for sustainability goals. It can translate those goals to tasks that people are executing every day.

There are a couple of other acquisitions done this year that are equally important, in linking up and binding our workflows. For example, we have solutions in the product design area, where we are trying to help designers make better decisions as they impact EHS and sustainability down the supply chain.

In this area, IHS bought two companies that provide tools for engineers operating in the design phase. One of them was **Invention Machine**, which has developed a "semantic search engine" built specifically for design engineers. Say you're doing design work on a gas turbine and you're interested in energy efficiency. IHS now provides a software package that lists techniques and tools you can use to improve

that efficiency. This is the first acquisition in that space that has applicability to the design world itself and the EHS and sustainability factors going into designs.

Then IHS acquired **GlobalSpec** from **Warburg Pincus LLC**. GlobalSpec adds to our capability in the area of tracking equipment and materials related to product design and engineering workflows.

As a company, we've done more than three acquisitions, but those are the recent ones that most impact our EHS and Sustainability business. In fact, IHS did 12 acquisitions this year, but those three had direct bearing on our EHS and Sustainability customer base.

EBJ: What growth are you forecasting for next year and beyond? What and where are the key areas of opportunity that your company will be pursuing?

S.L.: The market initiatives around non-financial data elements that are being collected by outside parties and used to evaluate the performance of asset-intensive industries will continue to be the big driver. We still see a good amount of growth in the Americas. We're operating there and two other regions—EMEA, encompassing Europe, Middle East, and Africa, and APAC, which is the Asia-Pacific region.

Within those three, we target what we refer to as "high-growth geo-markets." Brazil would be an example in the Americas. Russia would be one in EMEA. In APAC, Japan and South Korea would be high-growth geo-markets. What we're doing as a company is taking our various workflows and targeting some of these high-growth geo-markets that we hadn't be present in historically.

This issue of the non-financial performance tracking and reporting is an even bigger one outside of the Americas. You have companies competing for capital in different parts of the globe, and one thing that's a factor in giving them access to that capital is their performance. Investors don't want to be caught up in an investment that has poor performance that shows up in the newspapers.

EBJ: What are you seeing in terms of changes in environmental or energy

policy that could affect your clients, and therefore your business?

S.L.: We're anticipating an attempt by the U.S. government to do something around non-financial reporting. How it will manifest itself, we don't know.

One good thing that's happened over the past few years is that the discussion around carbon got refocused on energy. I'd say that, what we prefer, due to our focus in the market place, is that whether you're talking about water, or carbon, or other resources, companies start to take care of these issues not just in terms of compliance but in terms of how they impact shareholder value.

Our message to companies is this: you need to focus on these things not because they are regulatory-driven but because they are performance drivers. Investors are advising people to invest in company A and not company B because of their respective performance in the EHS and sustainability space. It's not purely a regulatory issue. It's a fundamental performance issue, and you need to start thinking about it that way—not just as a cost element driven by regulations.

"If you are a company operating in the energy and natural resources arena, you're going to analyze the operational risk of any company you contract with, and if their performance is poor, you're not going to hire them."

In that context, in the end, regulations are sometimes distracting. We do help companies comply with regulations, but we've been working really hard for the last three years to communicate that our clients need to focus on these issues from a share-price performance perspective.

So the biggest thing we're seeing, from a policy standpoint—and we support this—

is the pressure on companies to disclose information on their performance. For example, the U.S. government has temporarily suspended a Global 100 company from federal contracting. The reason is performance. It's an indication of a decision that was made about a company that will cost that company money. Some other company, with good performance, will benefit.

These will all be performance-based decisions. If you are a company operating in the energy and natural resources arena, you're going to analyze the operational risk of any company you contract with, and if their performance is poor, you're not going to hire them.

EBJ: What are the biggest challenges your company faces from an external market perspective, and from an internal management perspective?

S.L.: I would say the biggest challenge for IHS is that we're doing something that hasn't been done—combining information and content, software and analytics, and insight. Those are three different business models, and conventional wisdom says that you don't mix business models. It says you should be one or the other, not all of those things. So our challenge is to compete with a clear message, articulating how we're different and why we're better. That's hard work. If we don't bring those three areas together to a client—say, a large chemical company—then that company has to go out and buy from three different vendors providing three different kinds of service.

We have to spend the first 15 minutes of a dialog with a new client explaining how we're different, and why that's good for them. The "why" they generally get. The hard part is answering the question, which of these companies are you? We have to explain why are not any one of those, we're all of them together. From an external standpoint, the business landscape out there is very uncertain. We have hundreds of macro- and micro-economists at IHS, and they are predicting a very challenging market across the board in 2013, especially in the first half of the year. Being nimble under these circumstances is a challenge for every company, and it's something we're very focused on. ■

STANTEC LOOKING AT STABLE GROWTH IN 2013, THEN RESUMPTION TO DOUBLE DIGITS

Stantec (Edmonton, Alberta) is a multidisciplinary consulting and engineering firm employing approximately 12,500 people at 190 offices in North America and four offices overseas, achieving a size that has come through an aggressive acquisition campaign over the past two decades. The company divides its business into five principal practice areas: environmental, water resources, and geotechnical; buildings; industrial; transportation; and urban development. According to Engineering News-Record's (ENR) most recent list of the top 200 environmental firms, Stantec ranked at number 24. John Lortie is Stantec's environmental services practice leader in the United States, and Dominic Kempson is a senior scientist and subsector leader for Stantec's work in the U.S. federal sector.

EBJ: Please provide a quick description of your environmental operations in the United States.

John Lortie: Overall we have about 4,600 people in the U.S. today, 900 of whom are in our Environmental Services group. We provide consulting, planning, environmental science, engineering, landscape design, and architecture services, focusing primarily on infrastructure facilities and projects. In other words, we manage the built environment. And we think of ourselves as a company that is very community-focused, looking to add value on every project we work on, and looking to contribute back to the community.

EBJ: What kind of year has 2012 been for Stantec's environmental business in terms of revenue growth and profitability?

J.L.: We have done fairly well in the U.S. and have more than held our own under tough economic conditions and some softness in certain areas.

At the end of the third quarter, which ended in August, overall Stantec reported its fifth consecutive quarter of organic growth. Year over year, quarterly gross revenue increased company-wide by 12% to \$484 million, and net income increased 18% to \$34 million. So we're doing quite well. Overall, the environmental practice accounts for about 34% of the company's revenue. We are one of the largest environmental companies in North America.

The increase in organic revenue was primarily attributed to work in mining, oil and gas, and urban development in some areas. We're just starting to see new urban development take off in a few geographic

areas in the United States. In Canada over the past year, the business has been pretty robust, although it's slowing down now.

We're also able to engage in some work sharing in the U.S. and Canada when the opportunity arises. It helps quite a bit when you have a large company and a workforce of people who can provide the technical skills regardless of the geographic area.

Domenic Kempson: We're going to be tied into some fairly big U.S. federal projects in 2013 in several geographic regions. The Army Corps of Engineers is a fairly significant client. We do a lot of water infrastructure geotechnical work in the Mississippi Valley and across the country. We were also awarded a new project in New Orleans that we expect to start in the new year.

We also provide some other interesting services to other agencies. For example, we have some biological service capabilities that other firms don't have. We also make a good teaming partner and have a strong small business program.

EBJ: What growth are you forecasting for next year, and what and where are the key areas of opportunity that your company will be pursuing?

J.L.: In environmental services in the United States, we'll likely be stable. We're estimating low growth right now. That could change, but with the uncertainty in the federal budget and where our clients are spending money, we're not projecting substantial growth. We think we could be back to 15% growth in the following years, combining acquisition and organic growth, but right now we project that we

will be stable in 2013.

In our group, we actually expanded our work force by 6% through new hires this year, so we have added some significant organic growth. Our objective is to grow as much organically as we can. In some markets, of course, acquisition is the only way to get a foothold in a reasonable amount of time. There's such a barrier to entry in some markets and geographic areas.

D.K.: Stantec is driven very much by being part of the global community and expanding geographically. When you try to grow into a new geography, however, it's hard to do that running cold. But when you find a firm with a good local reputation, acquiring them allows us to inherit that reputation as well as add capability company-wide.

EBJ: Has it become easier or more difficult to maintain profitability in your segment of the industry? If the latter, what are the factors putting pressure on margins, and what steps are you taking to ensure profitability?

J.L.: I would say it's about the same as it's always been. Some of our commoditized markets force you to have high utilization, and because the buyers are in control, you have lower margins. We maintain margins because of our careful approach to project management. We have large clients with long-term projects, and we manage them well. We have good managers and good processes, and we drive accountability down to the bottom.

In some emerging markets, like some of the oil and gas markets, because there's pressure to get a project going in a short period of time, the client is willing to pay for that capability. What we're seeing in our industry, however, is competitors trying to shave margins to get into new markets. That's driving down overall margins, so you still have to manage a very good book of business, but typically you make more money in emerging markets.

EBJ: Although the recession has been officially declared to be "over," are you seeing any lingering impacts?

J.L.: We're absolutely seeing lingering impacts. Some parts of the business are not

in growth mode. The urban development market had been about 30 to 40% of our work, and it largely disappeared during the recession. It is just beginning to creep upward again, so there's lots of room for growth. In land development—golf courses, etc.—the market is still in recession.

But other markets are definitely not in recession. The energy market is certainly not. We expect spend there to increase, as the United States becomes a net exporter of natural gas. The mining sector also has had a good spend and was not in recession.

Transportation is linked pretty closely to federal spending, and there is pretty significant pressure on the federal budget. Furthermore, in the coming year, there is considerable uncertainty. The non-discretionary programs will continue, but there is some continued softness in discretionary spend. Also, at times during the past few years there has been a big infusion of development cash coming from outside the United States, from places such as Europe, and while we as a country remain a good investment, there's not as much of that development cash because of what's happening in the European Union right now.

D.K.: Another thing we're seeing in the energy market is aging infrastructure. We find that, with the major transmission and distribution clients, there's been a considerable amount of investment in upgrades, and there will continue to be. And the development of coal, oil, and natural gas will continue.

J.L.: The large maintenance and development projects that the utilities have been putting off will have to be addressed sooner or later. Events like Hurricane Sandy only underscore that fact.

One of the things we need to get us out of this recession in my opinion is a more certain energy policy. If there aren't ways to push costs of that infrastructure investment out to consumers, you won't see the investment we need. For that, you need an energy policy, and a way to provide investors long-term certainty of a return.

EBJ: What are the biggest challenges your company faces from an external market perspective, and from an internal management perspective?

J.L.: As I indicated, the recession caused some competitors to shave margins unreasonably, and probably in an unsustainable manner. Competing effectively against those companies is a challenge. And it's still a buyer's market in certain segments and regions.

In those more robust markets, like oil and gas, the challenge is getting the right staff in the right place at the right times. In the Bakken formation [in North Dakota, Montana, and Canada], for example, there was a lot of development activity and little infrastructure to support it. We, like our competitors, are faced with questions like, are we going to get in there, and if so, how are we going to do it?

"In those more robust markets, like oil and gas, the challenge is getting the right staff in the right place at the right times."

We have a semi-mobile work force that I'd like to see add some more mobility. If we look at where the big spend in the environmental market will be in the next decade or two, it will certainly be in oil and gas, and you need to have staff that can move to work sites.

It's the same in transmission and distribution. These are long, linear projects, and they may be in places where you have some people but not all the staff you need to execute. You can export technical staff, but your project managers need to interface with the client on a regular basis as well.

D.K.: Obviously, in some regions and market sectors, there's a smaller pool of dollars available, and our business development dollars to compete there can be considerable. But we also have to be careful not to commoditize what we do. It's a disservice to our clients. We continue to pay a lot of attention to our clients and try not to be distracted by the commodity side. Managing that business development can affect your bottom line, however.

We put a lot of focus on keeping the clients we have, and being viewed not so much as a service provider than as a part-

ner, who can strategize with the client on future investment. That's particularly true in the environmental area, where there are many sensitivities, perceived and regulatory, and it's very important to strategize and manage well there. Reputation is everything.

EBJ: What is your company's strategy for growth over the next five years? If acquisition is part of that strategy, what strategic goals will your acquisitions be designed to achieve?

J.L.: We're targeting 15% growth annually, divided between acquisitive and organic growth. The actual percentages will vary. Obviously, we'll grow in geographic areas where we're weak and where markets promise strong growth, like energy and water resources development.

EBJ: Given the federal budget situation, how concerned are you about staff cutbacks at EPA and other federal agency and department staff, and the potential for slowdowns in programs or rollbacks in enforcement as a result?

D.K.: In this election cycle, I'm not concerned. There may be changes, but I don't see it as a big issue. We work primarily on projects associated with non-discretionary spending. There are programs that will be funded regardless, no matter what happens, such as Homeland Security, or the Federal Emergency Management Agency (FEMA), or emergency response work. We've purposely targeted those large non-discretionary projects.

J.L.: In addition, I don't see the laws, like the Endangered Species Act or the Clean Water Act, changing fundamentally at all. Those laws drive our permitting work.

D.K.: Even in a more development friendly environment, where you might streamline a permitting process, that's still something we're very good at, and that could create opportunity for us. When you reduce the size of agencies in terms of staff, the volume of work doesn't necessarily go away. We're working on a number of projects where we were given NEPA-type documents to prepare that were typically prepared by in-house staff.

EBJ: As professionals at a company that's dedicated to environmental protection and sustainability, does it concern you that the best opportunities for your industry right now are coming from serving companies that are extracting resources in more remote, fragile, and hazardous places in the world (e.g., ocean deepwaters, the Arctic, nations with ongoing unrest)? What kind of balance do you think we can achieve between environmental protection and preservation on the one hand, and resource development to meet global demand on the other?

J.L.: That's a great question, and one that we're often asked. The way Stantec operates is we hire really smart people. We create really good environmental solutions using the best technology, engineering, and science, with the objective to avoid and minimize impacts to the environment. The companies we work for certainly don't want to have harmful environmental effects.

We've seen an important shift in the last several years. The client is better educated, the public is better educated, and the public agencies are more sophisticated, so the quality of information going into an environmental assessment is more sophisticated. We also have better tools to do those assessments. As a result, it's an exciting time to be in this industry. We operate in challenging environments—e.g., offshore resource extraction work in Canada—and we strive to make these projects as ecologically sound as possible.

The Deepwater Horizon event has had big impacts. Our clients in that sector are picking up their proactive management to another level. Obviously, they want to avoid such impacts. That's what I've seen over my career over the last 30 years. It's nice to have that sensitivity translated into our business model, and that's one reason I'm associated with Stantec.

D.K.: The major companies and investors we work with realize that it's not in their long-term best interests to be perceived as an unconcerned global player. People make decisions about where they spend their dollars based on their perceptions of companies, and they won't make those investments in companies that are

indifferent to their social and environmental responsibilities.

We should add that we as a company are part of this movement. We're ISO 14000 certified and have our own sustainability program, both of which are starting to be required by large and small clients.

Ethical behavior at Stantec is not a con-

sideration—it's a requirement and a core value. All of our staff find that whenever they have a question about an ethical position of a client, we offer an open door for them to report it. There are times where we need to "fire" a client because of their behavior. It doesn't happen often, but it happens. □

SCS ENGINEERS SEES GEOGRAPHY-SPECIFIC GROWTH IN DUE DILIGENCE AND BROWNFIELDS REDEVELOPMENT

SCS Engineers, Inc. (Long Beach, CA) is a 750-employee environmental services firm specializing in solid waste consulting and engineering, site investigation and remediation, property due diligence, and industrial permitting and compliance. The firm has consistently ranked at the top of the list of solid waste engineering firms in the United States and generated approximately \$124.5 million of its \$152.6 million in 2011 revenue from that segment. Earlier in 2012, SCS provided EBJ with its insights into the solid waste engineering market, and particularly the growth coming from landfill diversion and landfill gas-to-energy development (Vol. XV, No. 5, 2012). In this issue, Dan Johnson, vice president and regional manager for SCS's Environmental Services Southwest Group, discusses trends in the property due diligence and brownfields redevelopment markets.

"Over the past six months, there's been a real increase in demand because lenders are starting to lend again for real property."

EBJ: What kind of year has 2012 been in the due diligence and brownfields redevelopment markets for SCS, in terms of revenue growth and profitability?

Dan Johnson: It's a pretty easy story to tell. Wherever the real estate markets are strong, brownfields redevelopment and due diligence are strong. Overall, we're growing in both areas, and both practices are profitable.

Revenue for our due diligence practice is up by about a third. Geographically speaking, the East Coast, West Coast, Texas, and the Southeast are pretty strong. The Midwest is not as strong, but as I say, that's a reflection of the overall real estate market.

Revenue for the brownfields redevelopment practice is also up, but not by as much. The big news there was our acquisition of ES Consultants (Miami, FL) at the end of 2011. That deal added almost \$8 million in revenue from brownfields work, so it represented a big bump for us with some great projects.

EBJ: In those regions where you experienced growth, what factors have been driving that growth?

D.J.: In property due diligence, we're transitioning off a steady diet of work involving foreclosures and distressed assets over the past 24 to 30 months. Over the past six months, there's been a real increase in demand because lenders are starting to lend again for real property. In those hot geographic areas—and I'd add the Pacific Northwest to the list—the transaction volume is up substantially, and it's much better in certain areas. For example, we can hardly keep up here in the San Diego area.

In addition, portfolio transactions are up—entities buying portfolios rather than one-offs, some of them involving hundreds

of millions of dollars of real estate. We've got two or three of those projects going right now. What I think is driving that trend is the availability of a lot of money that had been sitting on the sidelines, looking for returns. These entities may be real estate investment trusts (REITs), or private investors, or private funds; we are seeing these properties coming back. That's a refreshing change.

Why the brownfields market is a bit behind is because that's almost always a redevelopment play, involving the conversion of a site's historic use to a higher and better use, and that requires considerably more investment. Really, the only thing going on there in select markets is multi-family housing. The collapse in demand in the single-family residential market has pushed people into apartments. There's activity in markets like San Diego, select markets in Los Angeles, and some in San Francisco and San Jose, where rents are sufficiently high to support it.

In 2014 and beyond, the crystal ball for multi-family-driven brownfields redevelopment gets a bit fuzzy, but for now, the financing picture is a bit more clear, so there is a bit of a resurgence due to this multi-family feeding frenzy.

The multi-family housing phenomenon may be less pronounced on the East Coast, but certainly it's happening in select markets in the Northeast and the New York area. It is translating into a construction boom, and work for us.

For those projects, we do the due diligence as a lead in, followed by the site investigations, design, permitting, cost estimation, and remediation to closure. We have a pretty big project in Los Angeles that's in the final stages of contract negotiations, a project that will be something between guaranteed maximum price (GMP) and guaranteed fixed price remediation to closure (GFPRC). That will be a risk transfer project, combined with an insurance package—an offering that's critical to have in today's market.

EBJ: Why is it important for companies like SCS to offer the risk transfer and insurance as part of the cleanup and redevelopment package?

D.J.: The insurance providers have largely left the cost-cap market, and the one provider left out there is very picky. There is a lot of interest in the marketplace for GMP/GFPR, but not lot of players or appetite for these projects due to problems with insurance and weak cost underwriting. It's not for everybody, but if you are willing to take the GMP projects on as a balance sheet risk, there can be good opportunities. The business entity SCS uses for these deals is SCS Secure, and under the right circumstances we will guarantee and indemnify the site owner for known costs. Owners can still purchase pollution legal liability (PLL) insurance to pick up toxic torts, unknowns, and property damage, but we're selectively taking the balance sheet risk on the "knowns" side, and we're seeing the market that fits our guaranteed remediation business as a good one.

"In 2014 the crystal ball for multi-family-driven brownfields redevelopment gets a bit fuzzy, but for now, the financing picture is a bit more clear, so there is a bit of a resurgence."

EBJ: We've heard that the activity in unconventional oil and gas exploration in places like Pennsylvania—the hydraulic fracturing, or fracking, market—is providing a good source of business for property due diligence.

D.J.: We've seen some work on the transmission side of that business, but we're more oriented towards the public-sector and investor-led transactions. I should add we've done some due diligence for solar projects on brownfields. We're seeing interest there.

That doesn't mean that there's significant growth in such projects. Getting to the feasibility stage is a different thing. The projects require tax credits or some other type of support to move forward.

EBJ: How did the economic downturn affect your due diligence and brownfields redevelopment practice? Did you trim

staff, or find ways to operate more efficiently? If the latter, how so? Also, did you implement any changes in the way you do business development in these areas?

D.J.: In the due diligence area, we did see a drop-off, obviously, in terms of the number of transactions and gross revenue. But again, it was uneven geographically. It wasn't off much here in San Diego for example. We worked for lenders on the distressed property side, where we have good relationships with lenders and distressed buyers.

Some of our locations and practices didn't fare as well, but they didn't have the transaction volume to begin with. So I'd say we contracted some, but it's surprising how busy we stayed.

On the brownfields side, it was pretty tough. Those projects decreased dramatically. There weren't many people developing projects in 2009 or 2010. The tide started to turn in 2011.

I don't think we lost many staff in that area. I think we just assimilated people into other areas within SCS. And with SCS Secure, we think we're positioned to grab onto that market when it does start to grow.

One thing that has hurt our California practice in particular has been the disbanding of the redevelopment agencies. Those agencies and the federal brownfields program kept us going through the tough period on the public side, but this year, Governor [Jerry] Brown said "bye bye" to the redevelopment agencies, and the courts upheld that decision. The governor had a \$20 billion budget deficit to deal with, and that was one way he saw to resolve it.

If you had asked me two years ago if that would have happened, I'd have said "no way." Thankfully, the private-sector brownfields work has picked us up.

EBJ: Are there any recent or forthcoming regulatory changes in the due diligence market that are affecting your clients and your business in any important way?

D.J.: We expect that the much anticipated updated ASTM standard, which mirrors the All Appropriate Inquiries (AAI) standard from EPA, will ultimately

be implemented. That will drive changes in terms of standard of care, and how thorough and detailed a Phase I site assessment will be.

There's not a lot of price movement in that marketplace. A lot of requirements have been added over the years that have affected it, so a lot of those factors are in place. I think you can only look at it from the point of view that due diligence gets you into other markets and projects you'd like to be a part of it.

Do clients expect more from us on due diligence? Absolutely. I think there's a trend in terms of bundling of services, where somebody can one-stop-shop for due diligence, property condition assessments, and maybe seismic impact analysis. I see clients being very demanding about their service provider's having the experience and knowledge to execute follow-on work. seamlessly For example, vapor intrusion has emerged as a significant issue. These questions come up all the time, and it's important to have the experts on hand to answer the questions and take the next steps, whether conducting a study or preparing a vapor mitigation plan. Clients want to know what the downstream risks are and how to deal with them.

In brownfields, there was recently a very significant clarification from EPA for bona fide prospective purchasers, allowing them to know what the risk profile is if you are going to redevelop a brownfields site. The impetus seems to be the growing interest in redeveloping on a "Brightfields" site, an EPA program that promotes renewable energy development on brownfields. Basically there was a clarification on what it takes to maintain your defense of liability against a Superfund action (see, e.g., "Revised Enforcement Guidance Regarding the Treatment of Tenants Under the CERCLA Bona Fide Prospective Purchaser Provision").

In California, there was a whole play-book on risk transfer and liability protection for brownfields redevelopment that was lost when the redevelopment agencies were terminated. That was quite a blow, and we are, as a market, struggling to replace those tools. That's a big deal.

There's an overlay there with the guaranteed fixed price product. If your clients are looking for a risk transfer of some sort and looking for you to take on the liability for the brownfields site, there is an uncertainty there that makes it difficult for a firm like SCS to underwrite that liability and assume the risk. In a shifting landscape, what costs do we assign to get the client to write the closure letter? The loss of the tools to determine those costs makes it more challenging.

"Do clients expect more from us on due diligence? Absolutely. I think there's a trend in terms of bundling of services, where somebody can one-stop-shop for due diligence, property condition assessments, and seismic impact analysis."

EBJ: What technical issues in due diligence and remediation are emerging?

D.J.: Vapor intrusion is a huge issue, and indoor air quality and industrial hygiene are a subset of that. There's a lot of science around basic water intrusion and the impacts of mold and fungus. But vapor intrusion is a pretty big deal.

EBJ: Are you seeing shifts in who's buying and why? In the brownfields market, we hear that there is preliminary work going on at sites, but that investors are not coming forward to pull the trigger on the full redevelopment.

D.J.: Aside from the shifts mentioned, in due diligence, we see some lenders selling off their loans. Lenders have recently focused on that, and they often put those properties out as a portfolio. As for brownfields, we see some parties not "pulling the trigger," but we are seeing deals.

At the moment, we're slammed with due diligence projects. The prospect of the change in the tax code, and particularly the change in the capital gains rate, has driven people to put properties on the market and obtain closure before the end of the year.

EBJ: In these markets, what would say are the biggest challenges for SCS going forward?

D.J.: For us, on the due diligence side, I think the challenge is being prepared for growth. It's having the right talent available and the capacity to handle portfolios, and to address these larger projects. It may interestingly be a staffing question. If we lose some capacity and intellectual capital, that could be an issue. And of course pricing and competition in the due diligence market is always a challenge. With low barriers to entry, there is always a lot of "commodity" pressure on Phase Is and the challenge is to be clear that we provide a quality work product that we stand behind.

On the brownfields side, the challenges seem to be focused in certain markets. The issue is having the capacity to bid on all the projects out there. I don't have that capacity in all those markets where there's activity. And there are some pricing pressures on brownfields projects and how efficiently you can execute on them. These challenges seem to be the types of pressures you face when things look more bullish. I do see demand for the guaranteed maximum price and guaranteed fixed-price remediation-to-closure products. You have to be careful in selecting projects that are suitable to those contracting vehicles, but when you can do that, those are great projects. ■

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BRILLIANT ENVIRONMENTAL LOOKING FORWARD TO SOLID CLEANUP DEMAND IN NEW JERSEY IN 2013

Brilliant Environmental Services, LLC (Toms River, NJ) is a remediation consulting and contracting company providing the full range of services from assessment to remedial action primarily for private sector clients, from Fortune 100 companies to small property owners, and for some public-sector clients as well. The firm employs about 25 people at its headquarters in Toms River and at an office in Bensalem, Pennsylvania. It's geographic coverage encompasses New Jersey, Pennsylvania, New York, and Delaware, but it has performed work in states outside this region at clients' requests. Philip Brilliant is the company's owner and principal environmental scientist.

EBJ: What kind of year was 2012 in terms of revenue growth and profitability for your firm?

Philip Brilliant: We're up about 1.2% in sales, so the revenue growth is almost negligible. Profitability is much the same as it has been over the years. We have kept a lot of our senior staff intact, and they tend to get paid more money. Sometimes you are using them on projects that are lower cost, and that affects profitability. But we're competing against companies with 2,000 professionals, so we have to demonstrate we're as good as them, if not better.

The end of the year has been a whirlwind, quite literally. Located as we are in Toms River, we were affected by Hurricane Sandy. Business-wise, we lost power for a week, in both our offices; they got hit in Pennsylvania by the storm as well. We tried to keep clients in our thoughts and do things, but between fuel shortages, access to properties, flooding, and emergencies keeping people off the road, it was tough. Even in December now, we're still catching up on field work going back to late October and November.

EBJ: In the wake of the storm, have you seen some opportunity, as a business, to help companies and people do the restoration that needs to be done?

P.B.: We've seen some opportunity on the charity side. Everybody is pitching in as businesses and as individuals. On the business side, we've been called into look at sites with oil tanks, which have been spewed over basements and properties. My favorite is, "there's a 6,000-gallon tank on my lawn." The problem is, everybody

wants it done yesterday, and it's tough paying the bills. The Federal Emergency Management Agency (FEMA), the New Jersey Department of Environmental Protection (DEP), and the insurance companies are still coming around to make their assessments. You can stabilize things, but when it comes to the actual cleanup, you have to make sure someone is retained to pay the bills, and that's been slow in coming.

So we're still feeling those effects, and it will go on awhile. There are people who haven't returned to their houses and businesses. And we haven't even talked about the mold issue, the waste being piled up, and what will happen to all that material.

I hate to say it, but there are opportunities that we didn't have before the storm. It will feel good to execute on them and restore people's lives. We're trying.

EBJ: What client sectors, regions, or product/service offerings provided the best opportunities, and what factors were driving those opportunities?

P.B.: The major oil companies and the people responsible for remediation—those who own contaminated properties—offered opportunity. With the change in regulatory climate in New Jersey, there are specific timeframes to move forward with remediation here. You don't wait for DEP to issue orders. You know when things are due, what you have to do, and what the outcome has to be. That's something we never had in New Jersey until 2009.

There are prescriptive ways of doing things, and the deadlines are very regulatory driven, but the oversight is now in

the hands of the licensed site remediation professional (LSRP). That's the big difference.

EBJ: Although the recession has been officially declared to be "over," are you seeing any lingering impacts?

P.B.: I always say—and I should bite my tongue—that doing remediation work is somewhat recession-proof. People have to do the work, or they pay the penalty. But getting paid is an issue. People who have to do the work don't always have the money, and there are no funding sources available in New Jersey. They've all dried up, so people are taking loans out and mortgaging their future to pay for things that need to get done.

As a result, slow payment is the norm now. A great client is someone who pays in 30 days. A good client pays me in 70 days. I sometimes feel like a collection agency.

EBJ: Going back to profitability, Has it become easier or more difficult to maintain profitability in your segment of the industry? If the latter, what are the factors putting pressure on margins, and what steps are you taking to ensure profitability?

P.B.: As a result of the licensing requirements now and the need for licensed professionals, we're able to increase some profitability because of the manner in which we do business and the experts we can put on the job. There is competition out there, but at the end of this licensing process, we'll probably have only 500 licensed professionals with about 12,000 contaminated sites. So you'd think there's still plenty of work for everybody. And if everybody sets rates accordingly, everybody should profit.

How do you retain good licensed professionals and maintain a profit? Benefits. The biggest key is health insurance.

EBJ: That brings us to business challenges. What are the biggest challenges your company faces from an external market perspective, and from an internal management perspective? You mentioned staying profitable as one.

P.B.: Obviously, maintaining profitability is a challenge. From an internal man-

agement perspective, the cost of insurance is a huge challenge, including professional insurance. And what hurricane Sandy will do to insurance prices in the future is a question. Then health insurance is the elephant in the room. Costs are skyrocketing while coverage is reduced. In terms of the business-employee balance, we'll probably do around a 70/30 split, which is the highest our employees have ever had to pay, and talking to other companies, it's nothing compared to what they are paying.

We try to work on getting the benefits right, so we don't overspend on benefits that aren't even used. We're lucky because we're a small company. Starting in 2013 (2012 W-2), employers are required to report the cost of coverage under an employer-sponsored group plan on each employee's W-2; so is a new tax looming? That's an extreme concern of mine.

As for other concerns, as the company gets older, you have to replace equipment, and those costs go up. You have to figure out ways to control those costs and still make a profit.

Also, looking for the person to take my seat when I'm done is a challenge looking forward. I recently announced a strategic alliance with a company called Lew Corporation. Lee Wasserman, the owner, and I have known each other for 20 years. They do complementary services, like mold, asbestos, and lead paint abatement, so that helps us in the marketplace. Could it lead to a merger? I don't know, but it is something we've talked about in looking towards the future and staying competitive. One of my strategic goals all the time is where are we going in the next five years, and how do we get there.

On the business side, the biggest challenge is what I call "cloning." In getting business these days, as much as we rely on e-mail, the internet, social networking—what I call the cold side of communication—nothing replaces the handshake. Sitting down with the client goes far beyond what you can accomplish via the computer. But you can't be everywhere. I have a new business development person, and we still can't be everywhere. Yet in every meeting I come out of, it's rare that I don't come out with a lead or new project.

EBJ: What's your outlook for 2013?

P.B.: I think it will be an up year, for a couple of reasons. For one thing, in New Jersey, there is a May 17, 2014, deadline for the completion of remedial investigations for a large majority of contaminated sites. Because of that, the work has to be done in 2013, or you'll never meet that deadline. Soil sampling, groundwater sampling, vapor intrusion investigation, and receptor evaluation—there will be a lot of that work.

In addition, the redevelopment and recovery following Sandy will generate assessments, investigations, and cleanups. We should see a lot of money funneled in, the work will be there, and with only 500 professionals capable of signing off on the work, there will be plenty of work for all.

I think you'll see some federal funding. The state will really rely on that. And then funding will come from private investors, because there will be a lot of property that

current owners won't be able to redevelop on their own. I think Pennsylvania, New York, and Delaware are still ramping up their programs. There's a lot of regulatory, client-based work in those states, and I think you'll see a lot more directives coming out for clients to do their work in those areas. They're looking at New Jersey's LSRP program, and they could adopt that model in the future.

EBJ: What's your company's strategy for growth for next year and beyond?

P.B.: Continue networking. Continue growing work from good existing clients. Those are clients we may have a portfolio with, and they may use multiple consultants, or we may increase the portfolio, because we can show we're more efficient and can do a better job. As I say, we're a company of 25 people competing against firms with thousands of employees, so we need to stand out. Rolling up the sleeves, as usual. ■

WITH STRUCTURAL CHANGES IN PLACE, NAUTILUS ENVIRONMENTAL SETS OUT TO IMPROVE PROFITABILITY

Nautilus Environmental (San Diego, CA) is an environmental toxicology services firm employing 27 people at its headquarters in San Diego, California, and another 13 people at an affiliated, "sister" organization in Vancouver, British Columbia. The company, a certified woman-owned small business, operates globally, providing biological and toxicity testing of water, sediment, soil, and products and related services to federal, municipal, and commercial clients across multiple sectors. Marilyn O'Neill is the firm's founder and CEO.

EBJ: Your firm bills itself as a testing firm, but it's in a somewhat different business than the familiar environmental laboratory firms, like Severn Trent and Accutest. Please describe your niche.

Marilyn O'Neill: We are a toxicology lab at the core. Our business is testing focused, but it's environmental effects testing, not chemical analysis. We have about 27 people in San Diego right now, and we started a sister company in British Columbia in 2005, which is now owned by a group employees up there. I guess you'd call that an affiliate, or almost a franchise model; we partner for clients and operate under the same name, branding, website, and internal project and time management

systems.

We operate globally. We do a lot of work in the Pacific Rim and the U.S. and Canada. Our clientele is about half municipal—ports, harbors, cities, water districts, etc.—and then maybe 30 to 35% of our business is with the private sector. A lot of that business is with other environmental consulting firms, which require our niche services. And part of the commercial work is for large energy firms.

And the rest is direct federal, although there's some federal work through the environmental consultants, under the private-sector category. For us, the federal work is mostly with the Navy. And then there is a

fraction of the business coming from academia. We have partnerships with quite a few universities. Lastly, we do some work with NGOs as well.

EBJ: What kind of year was 2012 in terms of revenue growth and profitability?

M.O.: In terms of revenue, we're going to jump certainly by double-digits, somewhere between 18 and 20%. We also had a big turnaround in profitability this year. We went from a loss position in 2011 to a small plus in 2012. Both increases are due in large part to the very difficult year we had in 2011 and reflect more stabilization than wild success.

Profitability is still not great, but it's now on the right side of the ledger. We took a few steps to get us there. We were running an ecological consulting department in addition to the laboratory, and that put us in the difficult position of competing with some of our clients and required a disproportionate share of resources, so we decided to move that part of the business to a partner and focus entirely on what makes Nautilus different and special in the marketplace.

We also consolidated multiple locations and operations into one building here in San Diego, which we purchased to control facility costs for the lab. So we undertook some big, structural changes in 2012. We have one big lab now instead of multiple smaller labs, which helped us eliminate duplicated overhead costs

EBJ: What client sectors provided the best opportunities over the past year, and what factors were driving those opportunities?

M.O.: We definitely saw an increase in private work, some of it driven by risk assessment on land that people were trying to use in a different way or transfer. Certainly, the mining and O&G sectors were very active.

On the municipal side, and particularly in California, we're seeing a lot of regulatory-driven work that requires our specialty. We're expecting new and changing regulations to continue to include our niche. We can measure site-specific effects and tell you what's happening and why and help develop localized criteria, and people are

more and more interested in explaining what's happening at individual sites rather than using general guidelines. That trend is good for us.

EBJ: Are you seeing any emerging areas of business that could be sources of growth over the next year or two?

M.O.: We see a couple of things emerging. Both with the California regulators and with EPA at the federal level, we're seeing more interest in toxicological and biological impacts. There's definitely more emerging regulation in that direction. We're certainly seeing more of that type of work at the state level, and to a lesser extent from EPA. In one area, we are seeing the federal agencies working through the state to effect change more quickly. That's a strategy we haven't really seen before.

“There are smaller ‘mom and pop’ labs that started up after the Clean Water Act was enacted in the 1970s, and they have now started to exit the business.”

EBJ: Is California's AB 32, with its cap-and-trade program, expected to generate any opportunity for companies like Nautilus?

M.O.: AB 32 is not really in our wheelhouse. Our testing focus is more water/soil/sediment-based rather than air based. There could be opportunities if people looked more closely at the potential impacts of aerial deposition, and certainly our clients are affected by AB 32 and are planning and adjusting, but not in the form of any work that's coming our way yet.

EBJ: At either the state or the federal level, do you see any other regulatory developments on the horizon that could present opportunity for your company?

M.O.: From a trends perspective, the re-emergence of interest in property development is presenting opportunity. Any redevelopment of properties requires assessment, and we're seeing differences in

the way people are approaching that task, in terms of their seeking to measure direct biological impacts rather than prioritizing modeling. Instead of using general criteria and modeling what the impacts might be, people are getting into the field and taking samples for toxicity and chemistry to get a picture of their site-specific situation.

EBJ: Has it become easier or more difficult to maintain profitability in your segment of the industry? If the latter, what are the factors putting pressure on margins, and what steps are you taking to ensure profitability?

M.O.: Profitability is definitely a significant issue. The overhead associated with laboratory operations is very high, so one thing we did do is take advantage of the real estate lows to buy a single building and consolidate our laboratories to help control facility costs. If you lease a laboratory, you may have an investment of half a million dollars or more in tenant improvements (TIs), and you're at the mercy of the landlord since you can't easily move. It is a lot of pressure to do it on your own, but I think will save us a huge amount in the long run. In terms of other pressures, we have a lot of volatility in our work, some of which is weather-driven. We think it's critical to maintain and invest in our staff to be ready for those demands, but then we have to get through the slower periods. Labor is by far the biggest cost in our world, as with most firms in the environmental industry.

In addition—and I'm starting to see a change in this—it has been very difficult to raise prices. But as I say, we are seeing the start of changes on that front, and there are some factors that are mitigating that problem. There are smaller “mom and pop” labs that started up after the Clean Water Act was enacted in the 1970s, and they have now started to exit the business. There were also a number of labs that were acquired indirectly by larger firms, which have decided our niche isn't part of their core practice and is better served by an over-the-counter relationship with a company focused on testing. That's helped us.

Also, we don't see the reverse auctions that the chemistry labs do. Our niche is not as crazy as that. And for higher-profile

sites, clients value and will pay for a litigation-quality product, which commands a higher price, and is what we deliver.

EBJ: Although the recession has been officially declared to be “over,” are you seeing any lingering impacts?

M.O.: When I talk with people, it seems like that the overall amount of work and requests for work has been increasing. The development areas are starting to come back. Payment became slow, however, and collections have not recovered. That has stuck a bit. I think that’s because cash flow has remained difficult for clients, just like the rest of us.

The other thing I see as having carried forward from the recession is onerous contract terms, and clients trying to push risk out to vendors and subs. We started to see dramatic terms both in terms of payment and in terms of defense and indemnification clauses, and that just may be the way things are going to be going forward.

Another the other thing that hasn’t recovered is the availability of credit from the banks. They are still not as comfortable as they were pre-cession with lending. So those are the lagging pieces; the market seems to be getting ahead of them. I should note that we’ve had a softer fall off in work given the fact that a lot of our drivers are around compliance, so people didn’t have a choice but to continue the work they were required to conduct.

EBJ: What is your company’s strategy for growth over the next five years?

M.O.: We grew very quickly when we started. We were on the Inc. 5000 list for several consecutive years, and we probably grew too quickly for optimal financial health. It can be very challenging to manage that type of growth, so my strategy looking forward, for at least the next few years, is to focus on bottom-line growth and improving profitability to ensure security and stability.

EBJ: What are the biggest challenges your company faces from an external market perspective (i.e., in business development and client service)? What are the biggest challenges from an internal management perspective (e.g., finding and keeping tal-

ent, leadership succession, controlling costs, etc.)?

M.O.: The external challenges are not as difficult for us. The biggest issue we face, because we’re in a very specialized technical area, is that we have a difficult time finding people who do what we do. We look everywhere for those people with direct toxicity-related experience. When we hire enthusiastic but inexperienced folks, it takes a long time to grow them once they are on board. And it can be hard to retain those folks, who may move on to a broader-focused environmental firm. That’s our biggest issue.

The other big internal issue involves some of those functional cash flow and credit issues. Like other firms, we struggle

a bit to manage those functions. From an external standpoint, we’re pretty lucky in terms of our market, and the continued emphasis on regulation and compliance.

I am pretty upbeat. We’ve gone through two years of a tough transition, and now we’ve gotten through building the foundation and are more into “decorating the house” and getting the details right. We’d love to find a couple more people who are very focused in our specific technical area. My ideal is to find people who I can ultimately put into an ownership and leadership role. That is certainly a challenge. It was a goal from the very start to create a firm that rewarded the people who built it, and that may mean some form of employee-ownership in our next phase. □

GEO-SOLUTIONS PARLAYS EXPORTABLE BUSINESS MODEL INTO SUCCESS OVERSEAS

***Geo-Solutions Inc.** (New Kensington, PA) is a 75-employee specialty contractor in the environmental and civil engineering markets. Launched in 1996, the firm differentiates itself as a provider of technologies for treating soil and containing groundwater, with a roster of technologies that include slurry walls, grouted barriers, in situ stabilization, biopolymer drains, and permeable reactive barriers. It serves industrial clients such as oil and gas, chemical, mining, pharmaceutical, major industrial, and other Fortune 500 companies, as well as government clients such as levee districts. Increasingly, it has expanded outside the United States into such countries as Canada, Australia, Brazil, and China. Chris Ryan is Geo-Solutions’ president.*

EBJ: What kind of year was 2012 in terms of revenue growth and profitability? What client sectors constituted the best source of business?

Chris Ryan: We grew about by 40% in revenue to about \$35 million this year, and profitability was record for us by far. I think we may not have been more profitable as a percentage of sales, but profits were higher because sales were higher.

In terms of client sectors, growth was really across the board. We had projects in every area. There were no problems in any of the industries where we have clients

I have a lot of friends in construction who are struggling. The work we’re doing is driven by a couple of factors. One is regulation around cleanup. Also, in some cases, like the mining sector, the economics are so good that the types of fixes we’re doing are just small expenditures of the

clients’ capital. They have projects worth billions of dollars in mine development, and spending a few million dollars to put a containment barrier around a retention pond is a very small fraction of the total.

EBJ: How did the recession affect your company, if at all, and what were the keys to maintaining high growth through that period?

C.R.: I think the keys to our thriving through the recession were those driving forces that I mentioned. Those regulatory forces and the economic forces relative to resource extraction were the big drivers. As I look at what happened around us, we were growing nicely in the mid-2000s, at a 30 to 40% rate, and had a record year in 2008. 2009, although down from the previous year, was still our second-best year, which I attribute to the fact that we were so busy in 2008 we didn’t look around as

much for new work. Then we picked right back up in 2010.

In terms of the civil side of the business, the fact that we are involved in levee improvements has provided some protection against the recession. Levees fail all the time, and there is political pressure to get them fixed. There are 100,000 miles of levees in the U.S., many in locations that you would not associate with flooding risk. What has recently happened is that, in many locations, insurance companies won't insure properties protected by levees that don't have an Army Corps certification. So that's been helpful as a motivator for communities to get levees reinforced.

EBJ: What avenues have you used in order to gain entry into foreign markets? Did you go "cold," or as a subcontractor, or by following your U.S.-based clientele to those markets?

C.R.: There are two factors. First, we do not market at all, even in the United States. The only thing we have is a great web site, and people find us and ask us to do work. There is a lot of technology we have that people would like to implement. Clients come to us for help, and we go, with a minimum of staff, to help a local contractor do the work. That has happened in each case where we have gone to international projects.

We use a technical assistance contract model, where we go in on a fixed-price basis and bring specialized supervision and equipment that the contractor can't provide on its own. They provide the labor, and we provide the technology. It's a very popular model in foreign countries like China, because they don't want to hire a foreign contractor to do the entire project. We use the same business model on many sites in the U.S., and for us, it's a very profitable model. Owners like it because it reduces their costs and allows them to continue to work with local contractors that may be familiar with their plant operations or safety requirements.

A lot of people think they can learn what we do, but after they watch us do it, they realize that it's more difficult than they initially imagined. As a result, we end up with a lot of repeat business. In Aus-

tralia, for example, we're into the second year of a five-year contract. And we have five-year contracts in China and Brazil, both relatively new. We're actively bidding sites with our partners in China and Brazil right now.

In Canada we have a subsidiary that is a Canadian company there. It generally operates using the same technical assistance model.

There is some overseas work that comes through our relationships with U.S. engineering firms and manufacturing companies. Our first contract in Brazil was from an engineering firm that has used us here. The client there is a U.S. Fortune 500 company that wants a site cleaned up to U.S. standards, so we're bringing the technology.

"We use a technical assistance contract model, where we go in on a fixed-price basis and bring specialized supervision and equipment that the contractor can't provide on its own. They provide the labor, and we provide the technology."

In Australia, almost every single U.S. engineering firm you can name has an office. It's like old home week, and in many cases, they've staffed their offices with expats, some of whom are people we know from the U.S.

EBJ: Do you have a separate business development department, or does your firm use the "seller-doer" model?

C.R.: We're definitely seller-doer. Projects come in, and they are assigned a manager, who initiates contact with the client, develops the proposal, and manages the contract. We don't have any sales staff.

In a previous business, I had a sales staff, and I have to tell you, it's the most difficult set of people to work with. The model we have is working very well.

EBJ: What do you see as the best opportunities for your firm going forward? Do you expect entry into any new national markets within the next year or two?

C.R.: We have worked in countries besides the ones I've mentioned. I think we're in the countries that really matter right now. I don't think Europe, for example, is a great place to be. It will have a tough time for a while going forward. The countries we're in are doing very well economically.

I should mention that we're in the process of acquiring a company, Geo-Con from right here in Pittsburgh, that will about double us in size. It's right in our niche with some of the same technologies, plus some others that are new to us; it will be a great combination. It will really boost our staff, equipment—the works, right in our sweet spot. Geo-Con is strictly a U.S. company, but that's still a great market. The back-story is that I founded Geo-Con in 1979 and led it until 1996 when I left and formed Geo-Solutions. I am delighted that these two great companies are coming together.

EBJ: You recently went through the process of leadership transition? How did it go? What were the big challenges and hurdles that you had to overcome?

C.R.: The first part of the process is to identify the need, and that was something we put off. We had five owners, two of us approaching retirement age, but it's tough to let go, and to figure out how to finance it and make it happen.

We completed the process in February 2012, having started it two years earlier. We had some discussions, but there was some resistance to an external buyout. And then one year prior to completing the process, we said it was time to get really serious about it.

I convinced everybody that there was no way we would do an internal financing, because of the debt risk. So we engaged an investment banker to start the process. One thing that I remember that the banker said was, "this will not end as you expect." I'd had envisioned a foreign buyer coming in and purchasing us, but in the end, it turned out we had our best offer from a private-equity firm. The original

owners still have a significant stake, and it's worked out well. And it helped us with this upcoming transaction, so it's been a fabulous deal.

Of course, the company has performed well. That makes everybody happy. There's nothing worse than going through a transaction and then experiencing a downturn, or finding a significant problem coming out of the woodwork. We haven't had that. It's been a great relationship.

“The challenge is maintaining a steady flow of employees at all levels, field and office....

There's no school you go to learn our business. You come in with a great education and you learn as you go.”

As far as the leadership roles were concerned, that was pretty much pre-ordained. Three of the original owners will be in the leadership roles, and I'll transition from being president to a chairman role. And as we merge our operations with Geo-Con, their leadership will fill in some holes for us. Everything is working out perfectly.

EBJ: What would you list as the biggest challenges for your firm going forward, both from an internal management perspective and an external market perspective?

C.R.: Clearly, this next year, the challenges will be related to integrating the operations of Geo-Con into our company. Other than that, the challenge will be maintaining a steady flow of employees at all levels, field and office. There's no school you go to learn our business. You come in with a great education and you learn as you go. And you have to be able to travel, which compounds the problem of finding the right people. That's true for most companies, and certainly of us. Finding that talent and being able to continue to provide our high level of service will be most important. ■

AFTER BIG JOB IN 2012, DADE MOELLER LOOKING TO LEVERAGE CORE COMPETENCY INTO NEW MARKETS

Dade Moeller & Associates (Richland, WA) is an employee-owned company providing professional and technical services to federal, state, and commercial clients in support of environmental, nuclear, radiological, and worker safety operations. The company employs approximately 220 people at seven offices in the United States and does a significant amount of work for the U.S. Department of Energy (DOE) at several of its facilities within the nuclear weapons complex. The firm is named after the late Dr. Dade W. Moeller, a long-time professor of environmental health and health physics at Harvard University. Dade's son, Matt Moeller, and his colleague Steve Merwin began Company operations in August 1994. Now the company's chairman, Matt spoke to EBJ about his company's business over the last couple of years, about corporate vision and culture, and about maintaining that vision and culture in challenging economic times.

EBJ: What kind of year has 2012 been for Dade Moeller?

Matt Moeller: To understand what kind of year we had, let's go back a year earlier. In 2011, we were at a high point, with almost 300 employees and over \$50 million in revenue. A major part of that work was involvement in the environmental assessment activities in connection with the Deepwater Horizon oil spill in the Gulf of Mexico. We had about 110 people in the Gulf states, providing infrastructure and staff to collect and manage environmental data for NOAA and all five of the affected states.

That effort was a huge project. It started with a small task order and grew to over \$25 million in 2011.

Today, we are not as big a company. The great thing about a big project is that it fuels growth and a lot of investment, and your corporate resume grows substantially. On this job, our mission was to work ourselves out of a job—do the work, report on it, and produce data of unquestionable integrity. And be done with it.

Today we have only about 10 people remaining in the Gulf, winding up that work. The project revenue this year will be about \$8 million, while our company revenue will be about \$37 million.

I know that's a story that people don't always want to hear, but that's okay by us. We value more the quality of the services we provide. Our mission statement is to

protect people and the environment. We have unsurpassed competence in dealing with radiation protection and radioactive material.

Interestingly, the work in the Gulf had nothing to do with the radiation protection aspect of the business. Rather, it was all about our expertise in sample collection and management and data integrity.

Our plan moving forward is to leverage our core expertise in areas that are aligned with our mission. We have a very capable business development team that's good at identifying opportunities. Nobody could have guessed that the Gulf incident was going to happen, and we stepped up. We make every effort to position the company to get the phone call asking us to participate in a project like that.

There used to be a TRW commercial that ran about 25 years ago, saying, “we don't make anything—we make products better.” Our tag line is much like that one: We don't make anything—we help others make and do things more safely.

EBJ: In addition to the Deepwater Horizon project, what were the key sources of business for Dade Moeller in 2012?

M.M.: We have three major project areas. Looking at where we were in 2012, I would say our number one project is the ongoing radiation dose reconstruction project under the Energy Employees Occupational Illness Compensation Program Act (EEIOCPA). That's a worker compen-

sation program for individuals in the DOE complex who may have been harmed by radiation in their career. It dates back to the Clinton administration and focuses on the workers who participated in the development and production of atomic weapons. To date, we've done more than 40,000 individual dose reconstructions for radiation exposure since we began in 2002. It's the cornerstone project for our company.

The second project is providing health and safety expertise at DOE's Hanford Site, specifically for the Mission Support Contract. An important part of our role is radiological site services. We provide the technical expertise for internal and external dosimetry services. We're very excited to be doing this work. We're the first company, in partnership with the prime contractor Mission Support Alliance, essentially to stand up a new, accredited program within DOE. To operate, you have to pass an independent assessment verifying the integrity of your program. In our technical world, it's a very big deal.

The third big project is the Deepwater Horizon project—the environmental sampling and data management and integrity support for all the samples taken in response to the spill.

We also have a very long-standing history of providing training, dating back to the legacy of my father, Dade Moeller, who taught at Harvard for some 27 years. In 2005, we acquired Radiation Safety Academy (Gaithersburg, MD) and have since renamed it Dade Moeller Training Academy. The Academy delivers training in a wide variety of radiation- and health and safety-related courses. It's been a terrific addition, and, together with some great new partners, we now provide courses in Las Vegas, Philadelphia, New York, Boston, South Carolina, and Tennessee, as well as at our corporate headquarters in Richland, and at our primary Training Academy location in Gaithersburg.

The last major part of our business, which accounts for about 25% of our work, is small consulting jobs. These are jobs that come as a result of our people and our experience, and often times after somebody takes one of our training courses. A project of this type may last a week or six months.

At any given time, we will have 130 to 150 active contracts of this type ranging from a few thousand to several hundred thousand dollars.

EBJ: You're a big believer in "corporate vision." How important is it to have a corporate vision—other than to excel in a certain business and make money—and how detailed does it need to be?

M.M.: That's a great question. I do have a lot of passion on this subject. I believe too many small companies shortchange themselves by lacking a corporate vision.

I think it begins with a mission statement. What is it you are trying to do? Not what are your goals, but rather, what's going to define how it is and who it is you go after in terms of providing expertise?

"Vision means not playing 'squirrel.' It's a matter of looking at your mission statement and translating it into priorities for identifying markets and then taking the appropriate steps to be successful in those markets."

Our mission statement, as I noted, is about protecting people and the environment. It's about maintaining and enhancing the reputation of Dade Moeller. It's about leveraging our unsurpassed expertise in radiation protection to gain opportunities in broad areas of occupational and environmental health and safety protection.

This is a very focused and purposeful explanation of what we're trying to do. The question is, how do we achieve that mission? We do it by seeking opportunities that need our core competence and expanding our efforts into new areas that can benefit from a common service, organization, or program integration. We often get the phone call asking for our expertise in radiation protection, and we follow on by explaining that there's a lot more we can do to support work.

The bottom line to me is, if you focus on your mission, you don't stray from your competence. I often state that running a company in my father's name has made it easier in a key way. Like most people, I might be tempted to take chance on profitable work outside of our competence if the firm were named after me, but because our basic tenet is to maintain and enhance my father's name, I don't take any chances. Our approach is to always do what's best. Your decision-making can be a lot clearer when you are taking care of your father's reputation.

Focusing on your mission avoids playing "squirrel." That is when we see something exciting and want to "chase the squirrel." And then you see another squirrel closer by and want to chase that one. Our vision is about assessing the strategic markets we want to pursue in the context of what is it we're going to offer and deliver. It's about answering the question, How are we going to distinguish our services from those of others. It's not about looking at all markets, or all services. We focus primarily on our core expertise. Ultimately, we set goals of going after specific markets, and winning a specific amount of work.

So vision means not playing squirrel. It's a matter of looking at your mission statement and translating it into priorities for identifying markets and then taking the appropriate steps to be successful in those markets.

EBJ: What are some of the key actions you've taken recently to implement your corporate vision?

M.M.: We periodically assess our corporate vision and translate it into corporate goals—at least every five years. The last assessment indicated that we were too dependent on DOE work. We considered carefully what markets we would be very well positioned to serve, and one of those is medical physics.

Medical physicists are the individuals who work with hospitals, clinics, and other institutions that have radiation-generating devices for diagnostic or therapeutic procedures. For a cancer patient in particular, the medical physicist plays an extremely important role in treatment. These profes-

sionals are responsible for calibrating the machines and establishing the treatment regimen to ensure the patient receives the right dose to the right location.

To pursue medical physics, we decided on an acquisition. We believe in January we will be completing a deal with a medical physics firm that fits the bill. We're in the final stages of that transaction, and we're very excited about our future together.

In the broader context of implementation, at Dade Moeller we think as a team. Whether as a management team or as a leadership team, a company has to constantly assess its priorities. There is not an unlimited amount of money. Some people might say, if I just work harder, I can go after this contract or that contract. I've always been one to advocate that we focus and assess strategically. It's not just about being on a team; it's about being on the winning team. Determine what you're likely to win, and go after it.

EBJ: In the face of our current economic challenges, how have you adjusted or re-oriented your business development activities? How have you prioritized them?

M.M.: I think we've done it in two or three ways. First and foremost, we've refocused on our core strength. We are really emphasizing the basics and leveraging our relationships with other companies. We understand that the economy is tight, so it's about delivering very high quality services at a good price. We are making certain that we can add value to anything we are pursuing.

Next, it's a matter of diversifying into markets that are not impacted as dramatically by reduced federal spending. We're looking at commercial markets where radiation protection is a driver, and we're positioning the company to be more relevant in those market.

EBJ: Going "back to basics" and "diversifying" seems a bit contradictory? How are you reconciling the two?

M.M.: I don't believe it has to be contradictory. I characterize diversification as having three components—technical, client, and geographical diversification. We're getting back to basics technically

by leveraging our core competence. And we are aggressively diversifying with new clients. Both our DOE and the medical physics work are related to our exceptional expertise with radiation, even if they are in completely different settings.

I should add, we're not the cheapest company out there. I would argue that we are all about adding value. We make every effort to put the right people with the right experience on the right job. Where we have to be careful—and it goes back to prioritizing your business development activities—is in matching our capabilities and experience to the job. If we get into a cost shootout, we're going to lose. When a client looks at best value, or if they have a problem in a complicated and hazardous work environment, and we get that job, we're going to succeed.

"It's not just about being on a team; it's about being on the winning team. Determine what you're likely to win, and go after it."

EBJ: You're also a believer in maintaining a consistent corporate culture. How do you define "corporate culture"? What threats to that culture does a challenging economy present, and how do you respond?

M.M.: Let me start with what corporate culture means to me, and then I'll try to segue into the challenges from an acquisition and down economy standpoint. For Dade Moeller, our corporate culture begins with the basic principle of maintaining and enhancing my father's reputation. What does that have to do with culture? We take care of our employees. We provide them with good benefits. We pay competitive salaries. We create work environments that we believe are conducive to getting work done. We create an environment in which people are treated and respected as professionals, and we foster a collaborative approach to doing the work. It doesn't mean somebody next to you is doing your work. It means, if you have a question, you

can get help.

Colin Powell, in his new book, said some people mistake being kind for weakness. We're kind to our employees. It's about compassion, care, and respect. It's not about being weak. We did have to terminate some employees this year. It was unfortunate, but we did it in a kind manner. Our actions breed loyalty.

Of equal importance to the corporate culture is maintaining our professionalism regardless of one's role. We never take shortcuts. We take the high road. We do what we need to do for our people. For example, with health costs going through the roof, we've put in place the right policies to lower our premiums and save money while protecting our employees.

Our business model is being impacted right now, and we're weathering the storm. We've got good projects right now, but you can see how the challenging economy could prompt us to pay less attention to our employees, to lower our standards a bit in order to respond. That's not who we are. We won't stray.

EBJ: What's your outlook for 2013?

M.M.: It's going to be incredibly exciting as we expand into the new market of medical physics. There will be a lot of effort to integrate our staff with the new acquisition, and to make sure we are all on the same page in terms of our priorities related to our clients.

It will be challenging in terms of replacing revenues. Government-related revenues are down, and Dade Moeller has a lot of revenue to replace. That said, we have great relationships with other companies, and our business development pipeline is very active in terms of developing and pursuing opportunities.

I think 2013 will also be a year in which some relationship building over the last couple of years will pay off. There are numerous companies who talk with us, and we're part of their teaming strategies. And there are new opportunities, particularly with the Department of Defense and Army Corps of Engineers. So I'm upbeat. It will be a good year. ■

RESURGENT PETROCHEMICAL AND MANUFACTURING INDUSTRIES SPUR SOLID GROWTH FOR COLUMBIA TECHNOLOGIES

Columbia Technologies, LLC (Baltimore, MD), is a global provider of high-resolution direct sensing and mapping technologies, such as the membrane interface probe (MIP), laser-induced fluorescence (LIF), and the hydraulic profiling tool (HPT), for application in contaminated site characterization. Founded in 1999, the 17-employee company has successfully completed approximately 1,000 high-resolution site characterization surveys throughout Mexico, Canada, and 45 of the 50 states, including Hawaii, serving oil companies, government agencies, commercial real estate owners, developers, and architectural and engineering firms. John Sohl is the company's CEO.

EBJ: What kind of year was 2012 in terms of revenue growth and profitability for your firm?

John Sohl: It was a good year. We had 20% revenue growth, and roughly 30% growth on the profit line. We had a good, solid set of projects that contributed to growth and profits.

EBJ: What client sectors and regions provided the best opportunities, and what factors were driving those opportunities? Any shifts in the sectors you're serving?

J.S.: For what we do, the clients that are engaging in more complex projects, where the site characterization and remediation challenges are significant, that's where we get our best match in terms of value proposition. They often tend to be petrochemical clients and manufacturers.

We did see a good amount of work in the Midwest, which has offered good growth through the resurgence in the economy. General Motors, Ford, and other manufacturers are trying to resolve issues with the assets on their books. I think we'll see more and more positive impacts when cheap natural gas affects the petrochemical and manufacturers. These clients did do well.

There were no dramatic shifts in our client base. We maintain a fairly broad base, and we're active in both the industrial sector and the Department of Defense (DOD) market. In the commercial market, if there has been any kind of shift, it's been by reaching out beyond our traditional borders. In 2012, we've done a couple of projects in Hawaii. We have a

partner in Mexico, and we've done some work in Canada, so we're exporting our work on a regular basis.

EBJ: Although the recession has been officially declared to be "over," are you seeing any lingering impacts?

J.S.: I'd say we see lingering impacts in three areas. One is in real estate redevelopment—the shopping malls and commercial retail redevelopment. We don't see the real estate investment trusts (REITs) or those kinds of clients providing a dramatic level of business. Also, state governments are under pressure and are having a difficult time keeping up with their workload. That affects our projects, because it takes time to get projects reviewed, stretching the delivery times out longer.

In addition, unless you're deeply in bed with a federal client and can work with them on the ebb and flow of funding, we find the federal market to be a bit helter-skelter. I think, with all the contracting upheaval, one needed to be in place with those types of contracts to capture true value.

EBJ: What advances in information and site characterization technology have you recently deployed into the field? Are any of these "game-breaking" technologies in the area of site characterization, or are the more incremental advances?

J.S.: The heterogeneity of the soil structure is the biggest unknown out there, so using multiple soil characterization techniques to figure that heterogeneity out is critical. **Geoprobe Systems** (Salina, KS) makes most of the direct-push systems

in the industry, in the United States and other countries, and their HPT tool provides a high-resolution characterization of soil permeability. Permeability turns out to be critical in terms of tracking the migration of contaminants and the effectiveness of remediation. We need to know what's moving where, down to fairly high resolution. So systems that look at permeability of soils have been changing the landscape.

We're also always looking at advances in on-site analytical capability—technologies that give you a better qualitative and quantitative picture of the distribution of contaminants, which can help with liability management and project streamlining. The better we do that in real time or near-real time, the more we can reduce the cost of projects.

A third area that helps a lot is the information technology on the back end. The better it gets, the better we can do. We do take advantage of the new mobile technology, and there are parallels in the construction world. People tend to think of environmental data in terms of lab-based databases, but there are things you can do with this type of data in terms of getting it from the field to the regulator or the project manager that can be very valuable. We call this "lines of evidence," and capturing this data in a decision-making format is critical to moving projects along.

EBJ: Do you have a separate business development department, or is that function distributed among your billable professionals?

J.S.: We do have a separate group that takes on the bulk of the sales function. They are supported by our technical professionals and their understanding of how to bring the best solutions to bear.

We shifted to that model about four or five years ago. This shift allowed us to exert a constant push on business development to keep the revenue growing, with a target of about 20% growth per year.

EBJ: Are there any new or emerging regulatory developments that have the potential to drive the state of the art and business for your company?

J.S.: The basic answer is no. However,

there are several collaborative efforts going on within the Interstate Technology & Regulatory Council (ITRC), a group of industry people, regulators, and service providers that work on the best applications of technology to individual types of projects. These efforts are being pursued in both a sponsored way with quasi-government and industry involvement, and then by companies on their own. I think this type of effort helps move things forward—perhaps at a slow pace, but it does move forward.

There have been no major regulations driving that process. It's all a matter of fulfilling a need for better practices. Outside the U.S., in certain countries, there are changes that are shifting liabilities and characterization requirements. Those shifts will continue, but it will vary significantly be country by country.

EBJ: What are the biggest challenges your company faces from an external market perspective, and from an internal management perspective?

J.S.: The number one issue is always project risk management—are we matching the right services and capabilities to the right client. You don't want to get into a mismatch with a client that expects X and you are delivering Y. We put a lot of time into trying to manage that project risk up front—getting a good understanding of what the client expects us to do, and then delivering. It's critical to our success.

Obviously, finding and keeping talent is a challenge, although though there are a lot of good people out there. The economy has created a pool of good people, although whether they are well-suited to the environmental field is always a question.

EBJ: What's your outlook for 2013?

J.S.: Our approach is to do what we've been doing—that is, maintain a healthy mix of clients, in the U.S. and internationally. We'll continue to focus on what we're going to deliver, and we're always looking at organic and acquisition growth opportunities. We're aiming a 20% growth rate, which is about the limit on what you can do without outside capital. We'll consider acquisitions when they come up. Ultimately, we'll listen to the customer and go where they need us to go. □

COMPLIANCE KNOWHOW AND REPEAT BUSINESS YIELDS DOUBLE-DIGIT GROWTH FOR BREITLING CONSULTING

Breitling Consulting, LLC (Burlson, TX) is a small environmental management and consulting firm focused on helping its clients, primarily in the upstream oil and gas and institutional sectors, comply with environmental laws and regulations. Its specialty is air-quality consulting, with additional capabilities in hazardous waste and National Environmental Policy Act (NEPA) compliance and in pollution prevention. The company's primary clientele is in the Texas and Gulf Coast region, but it is seeking to expand nationwide. Amanda Breitling is the company's founder and president.

EBJ: What kind of year was 2012 in terms of revenue growth and profitability? What client sectors or regions provided the best opportunities, and what factors were driving those opportunities?

Amanda Breitling: It has been a good year. We nearly doubled our revenue in 2012, and we added three employees and moved into a larger office.

The majority of our revenue came from both of our key client sectors—upstream oil and gas and institutions, which essentially means hospitals and universities. In terms of drivers for the oil and gas business, it's all of the new federal regulations. We have clients that are still getting on board with their greenhouse gas inventories, and then the New Source Performance Standard (NSPS) Subpart OOOO regulation, which establishes performance standards for crude oil and natural gas production, transmission, and distribution. This is a new set of compliance rules for the oil and gas industry, aimed at volatile organic compounds (VOCs) and sulfur dioxide (SO₂). Those needs are generating a good amount of business.

Then we have a lot of clients in Texas, and the federal engine rules are affecting them—the NSPS Subpart JJJJ and Subpart IIII and the National Emissions Standard for Hazardous Air Pollutants (NESHAP) Subpart ZZZZ rules. These rules establish emission standards for stationary reciprocating internal combustion engines.

A lot of the business for hospitals and universities is a function of their keeping up with the compliance documentation and keeping their combustion equipment in compliance as their campuses expand.

Universities are really trying to outdo each other, and hospitals are as well. It doesn't look like growth in these areas is impacted by the economy. Both just keep on growing. I've been working in the institutional sector for almost 12 years now, and they don't ever seem to slow down.

EBJ: In your client base, especially upstream oil and gas, are you seeing increased competition from other air-quality service providers? How do you differentiate yourself?

A.B.: I do see some increased competition. Probably the biggest limiting factor in the air-quality consulting market is finding qualified staff. It would be more competitive if firms could find that staff, so it hasn't become too tight yet.

We differentiate ourselves by trying to provide full-service at one price and trying not to nickel and dime our clients. We try to ensure that everything we do is specifically for them, not too boiler plate. Maybe “providing customized solutions” is a better way to put it—for one up-front price.

EBJ: An unprecedented number of new and forthcoming EPA air regulations (NO_x/SO₂, ozone/PM, air toxics, greenhouse gases, etc.) are hitting the regulated community all at once, and some consultants are saying that some of these regulations will be very difficult to comply with. How are these rules affecting your clients, and how are they dealing with them?

A.B.: Our clients are trying to deal with these rules slowly. They can't absorb compliance with all those rules at once. It's just not feasible. They are trying to take things one at a time. To be sure, they are at risk

with the regulators, but they just live with that risk knowing that they can't do it all at one time.

EBJ: What growth are you forecasting for next year?

A.B.: I see pretty steady growth. I don't think there will be a huge jump. Our clients don't try to do all their compliance at once. They're pacing themselves. And then there's that lack of qualified personnel in the air quality area.

As a result of these factors, we probably won't double our growth next year. The limiting factor, again, is the staff. We've been looking for qualified people, as has everybody else in the area, and they are just not to be found.

EBJ: What is your company's strategy for growth over the next five years?

A.B.: I think we've come to the realization that we'll have to hire out of college and train people rather than search for experienced staff. And we'll just continue to maintain our client relationships for repeat work, while expanding geographically.

Right now, we don't have revenue targets. It's a matter of managing what we're doing and retaining our clients. Over the long term, we're looking at going into the 8(a) program and getting more federal work within the next five years.

EBJ: What are the biggest challenges your company faces from an external market perspective, and from an internal management perspective?

A.B.: Honestly, the biggest challenge is the constant release of new regulations, and trying to keep up with them and maintain our expertise. We do that through persistence and constantly reading the regulatory updates. I look at the Federal Register table of contents every single day.

We have to balance that with the ability to keep our billable hours up, and that's hard to do. If the rules weren't always changing, you could push forward and just do all of the work. You have to do both at the same time.

That said, I'm very upbeat about 2013. I'm looking forward to it. ■

RICHARD STERNER: SMALL WASTE FIRMS WILL STRUGGLE TO WIN IN M&A GAME

Sterner Consulting (Pittsburgh, PA) provides specialty consulting, merger and acquisition (M&A), valuation, market analysis and financial services to a wide range of small to mid-size companies and to banks and investment institutions serving those companies. The five-person firm is focused primarily on the solid waste industry and its many specialty segments, including waste to energy, specialty transportation such as rail and marine projects, and hazardous and nuclear waste management. Richard Sterner, the firm's founder and managing director, has more than 25 years of experience in the environmental industry and another 10 years of experience in the civil engineering and utility industries. He spoke with EBJ about M&A trends in the solid waste and related sectors.

EBJ: There have obviously been some major deals in the solid waste sector in 2012—e.g., the sale of Veolia ES Solid Waste and Waste Connections' purchase of R360 Environmental. How has the overall deal flow in this sector compared with past years?

Richard Sterner: With regard to deals on the Waste Connections/R360 model, we have about a dozen new clients this year interested in the Marcellus and Utica shale plays for exactly the same reason as Waste Connections—to expand their service base in a growing dynamic marketplace, like the waste business used to be back in the late 1990s when there was a lot of consolidation going on.

That was definitely a time of high multiples and significant opportunities within the waste industry itself. It's a little more low key now; a pure waste company doesn't have the same opportunities for expansion and growth as in the past, but there's definitely an opportunity to expand businesses in new segments.

In terms of overall drivers, there are still some large private companies out there that will be facing succession issues and that will need exit strategies, and there are a lot of small companies that feel like they missed the last round of consolidations and are anxious to participate. "Anxious to participate" doesn't mean able to participate, however.

The issues there are the high multiples paid by those big deals such as the Veolia ES price—in the neighborhood of 10X to 12X. Nobody is paying those kinds of multiples for the smaller firms and nobody

wants think that they have "left money on the table" if they accept a lower valuation.

We would also expect a negative impact from the likely rise in capital gains tax—an outcome of the reversion to the pre-Bush tax cuts should we fall off the so-called "fiscal cliff"—to diminish the returns further to the sellers and be a drag on transactions. That effect would provide less money to a seller and provide more incentive to remain in place waiting for the next consolidation.

It's a fact: most small waste company operators cannot sell their businesses for enough money to last through long retirement periods. Many rejoin the business in a few years after a transaction.

There is not, then, a robust market for small operators to sell to the large public or private companies at any reasonable multiple today, and sellers are reluctant to sell to their peer companies, because the funding is generally not there for a small acquirer to fully fund a transaction at closing. What's more, buyer's notes have more risk from smaller-market businesses.

We're also finding that landfills, even with rail service, are not the acquisition targets that they once were. They are impacted by lower waste volumes, recycling diversion, and in the Northeast some increased daily capacity at a few market-making landfills in Pennsylvania, which have lowered pricing over the past five years.

EBJ: How about deal flow in the waste-to-energy (WTE) sector?

R.S.: We are seeing a lot of "activity" but no real transactions in the waste to en-

ergy or waste to fuels segments. We have several clients seeking funding and permit modifications for that part of the business at this time, but few closings.

There are very few facilities of good size and proven technologies. In few cases thus far has any one built a full-scale production plant. It will happen, but there is more “activity” than deal completion right now.

Some of the biggest, most aggressive funds are perfectly willing to put money into a project like that. They are very wary of the technology, however, and for the most part, the only part of such a project that makes a difference to them is the back end—the long-term, 10- to 20-year agreements to sell the power or the fuel. It’s not the quality of the developer but the quality of the end contract that makes a difference. There’s lots of bench-scale stuff out there, but not a lot of completed projects. By bench scale, I mean facilities that handle say, 5 to 20 tons of waste per day, and to go from there to 2,000 is a pretty big lift.

A big negative factor in M&A now is the lack of availability of banks to fund projects or acquisitions or an institutional unwillingness to put money at risk in consolidation or roll-up plays for any but the biggest of the operators out there. For project finance relating to WTE or facility expansion, state allocation bonds are available from various state agencies for WTE or similar projects, provided you have the underlying bonds sold in advance and you have a put-or-pay long-term end use contract in place—and only under those circumstances.

So it’s the lack of availability of banks to fund projects, and the underwriting hurdles are tremendous. There used to be a lot of banks or funds that would put money at risk, but right now, everybody is looking for the big deal—\$100 million, or \$50 million—but very few people are willing to fund small acquisitions. Ten years ago, there was a lot more money in the marketplace for that purpose. Right now, people are less willing to put money at risk to fund a deal that gives money to a company to go into the marketplace and build market share through acquisition. Hard asset lending—no problem. There’s plenty of money out there for that.

EBJ: So you expect to see more deals like the Waste Connections purchase of R360—i.e., companies branching outside of their customary business to enter the booming upstream oil and gas market for field services. What are the risks in making such moves? Is Waste Connections uniquely qualified to make a success of this venture?

R.S.: Yes, we have already seen many companies try to move in that direction, to gain a foothold and marketshare. It is not as easy as it may initially seem. Level of service, even for the typical service-conscious waste collection company, is a challenge due to the 24/7 nature of the business and the very high master service agreement requirements for training, safety requirements, and specialty equipment availability.

EBJ: So a Clean Harbors is likely to have a clear advantage over a Waste Connections in this type of business?

R.S.: Clean Harbors has a regulatory history and a resume of expertise to be able to move into that business. You might be a garbage company that provides excellent service, and is responsive to customer needs, and that gets you a little bit of the way there. But there is a long way to go to get to the oil and gas industry’s demands for compliance, expertise, logistics, safety, and other factors. Just to get a master service agreement with some of these companies is going to take a long time, with a lot of paper work and certifications, and it doesn’t take much to lose anything you may be able to build up.

We believe that companies that already operate in a highly regulated market now will do better than a typical collection company in this industry. This is an equipment-intensive industry where immediate access to a wide array of high-quality gear and equipment is critical to even participate.

Many landfills now take drill cuttings and believe that they are in that business. That part is the simplest segment, however; the management of the processes, getting out to the well pads, providing the required logistics, managing the paperwork, and having the waste processing

experience, equipment, and related skill sets are better suited to hazardous waste operator, for example, than a typical collection operator, for which the equipment is generic, and there is no advanced training and safety and health regulation such as you see in that oil and gas industry.

That said, I think Waste Connections can be successful even if its core business is not uniquely qualified. However, unlike some waste companies considering that move, the firm has a large accessible capital base, and it acquired a company with an excellent reputation and with sufficient equipment and skilled management and a successful resume in that industry to make a large positive impact.

It’s important to note that the oil and gas operators are unforgiving, and that they all know each other and the available vendor base in their service arena. You only get one bite of the apple, and bad news such as service letdown travels fast in that business.

EBJ: How has the level of deal flow affected valuations in the solid waste sector? What other factors are affecting valuations?

R.S.: We are seeing relatively consistent multiples for transaction values. There are very high multiples for large deals, but those for smaller companies and facilities have been the same for the past few years.

Landfill valuations have generally taken a small decrease; that may change if waste volumes increase. However, that positive factor may be reversed should WTE facilities achieve their stated potential.

As I pointed out earlier, a big problem with a smaller company selling its itself is that the principals rarely realize enough from the transaction after taxes and other costs to fully fund their retirement needs. And again, there is generally not sufficient available “risk” dollars out there to fund roll-ups and consolidation plays, where the participants benefit from economies of scale and internalization of their cost structures, which would drive the multiples up for a later transaction.

EBJ: What trends in deal flow and valuations can we expect to see in 2013? What

are the underlying factors driving those trends?

R.S.: We may see a drag from taxes and from a potential recession. Although we have now proven that our industry is recession resistant, it is not immune to a downturn in business activity. It's less affected than retail and manufacturing, but it is far from immune to the effects of the economy. I think 2008 made that pretty clear. As for the potential tax impacts, we have not really seen a surge in transactions related to taxes in any of the past few tax threats.

Overall we will likely see the same deal flow volume and generally the same multiples that we have today. Transactions will likely be moving to different segments of the waste business than in the past. Waste to some form of energy, such as anaerobic digestion, pyrolysis, and gas conversion technologies, pending their large-scale commercial success, may negatively impact landfilling activities and the related transportation infrastructure. The oil and gas industry will definitely have an effect on the waste management business, and companies that prove that they can compete in that business will enjoy a premium.

Absent robust consolidation drivers, such as the availability of at-risk funding resources, and considering the very few growth-hungry regional powerhouse companies that we see now in the business, we do not expect to see a lot of hauling company transactions by either the large public companies or the larger private firms. We do expect to see some additional transactions or "adjustments" or realignment following the Veolia deal, especially in the Northeast.

We do expect a continuation of typical smaller-company route-consolidation purchases, transfer-facility development and acquisitions, WTE-related activity, and other transactions taking place at current market valuation multiples—based on cash flows generated (or promised).

EBJ: A Goldman Sachs analyst recently characterized the waste business as "attractive" and rated both the top tier companies (Waste Management and Republic Services) as "buy." How do you see the

fundamentals of the industry, as they affect the top tier, middle tier, and smaller companies?

R.S.: The narrative from those reports cited returning waste volume, residential housing recovery, and favorable pricing changes; clearly those bode well for all segments of the industry. However, they will be enjoyed most at the top where they have significant marketshare and facilities to force the benefit most from those factors.

Smaller and mid-size companies will also benefit from rising volume and pricing should those forecasts be true. We have seen some incremental positive pricing from our smaller clients; however, not robust pricing improvement.

Of course, higher prices and volumes will result in higher cash flow for those

companies who see those benefits. We do not expect that to affect the actual sales multiples of any of the smaller to mid-size companies that are looking for a transaction in 2013 and 2014. Higher EBITDA will allow for improved "sale" pricing for companies, but we expect the trading multiples to stay about the same as in the past few years.

EBJ: On that assumption of improving waste volumes: is that just a straight-line function of an improving economy?

R.S.: Yes, essentially. It needs to outpace the diversion of wastes to other end points. But, yes, it's strictly a function of the economy and in particular, the housing part of it. I should probably add manufacturing as well, although manufacturers have gotten pretty good at keeping materials out of the waste stream. ■

CRA'S LEEHANE SEES OPPORTUNITY FOR CONSULTANTS IN FORTHCOMING ISO 14001 CHANGES

CRA Europe (Nottingham, U.K.) is the 20-person European unit of Conestoga-Rovers & Associates (CRA; Waterloo, Ontario), a global engineering, environmental consulting, construction, and information technology company employing 3,000 professionals at about 90 locations worldwide. CRA Europe works primarily for the process industries—including oil and gas, chemicals, and manufacturing—as well as in the land development and property areas. One of its specialist disciplines is in consulting on environmental management systems (EMSs), serving clients at the corporate strategic level as well as at the facility operations level. Nigel Leehane is CRA Europe's managing director, and he serves on the International Standards Organization (ISO) working group that is revising the ISO 14001 EMS standard. He spoke with EBJ about those updates and the resulting opportunities for environmental consulting firms.

EBJ: First, a little background on the subject: How extensively has ISO 14001 been adopted by corporations and other entities? Are there any regions of the world where it has been more widely adopted than others, or any industries that have been more likely to implement it than others?

Nigel Leehane: I think there's something in the neighborhood of 300,000 certificates issued globally. Some companies elect to have a single system and certificate for all of their businesses and activities, while others have separately certified systems for different areas. All in all, adoption has been quite extensive.

I would say Europe and the Far East are

probably the regions where it's been adopted most extensively. Certification is not confined to process industries; it crosses into retail and financial services and consultancies. We ourselves have certification for our consultancy here in the U.K.

In some jurisdictions, the regulators actually require management systems to be implemented in some facilities. It varies. The U.K. Environment Agency encourages companies to have ISO 14001 certification. Such certification is not mandatory, but for some permitted facilities, the annual regulation fee paid is reduced if they have a certified management system. Customer and supply chain expectation is also a driver for many businesses.

EBJ: Have there been any studies showing that ISO 14001 certification has led to any clear benefits for the adopters, both in reduced environmental impacts and in company branding and reputation?

N.L.: It's hard to show the branding benefits and the compliance benefits. There are some studies showing those kinds of links between certification and performance, but again the evidence is blurred across jurisdictions and sectors.

I would say that some of our clients certainly believe there are strong intangible benefits from 14001. And I would add that some clients operating globally, particularly in developing countries where there is a lot of scrutiny by NGOs, see that ISO 14001 almost provides a license to operate, when the regulatory regime is lacking. We are certainly finding companies that are aiming to operate at a consistently high level despite the lack of local regulatory regimes. Some of our projects involve exactly that: helping companies operating globally develop systems that impose good practices in a regulatory vacuum.

EBJ: What's behind this revision of ISO 14001, and what are the key revisions?

N.L.: ISO standards are subject to periodic evaluation, and it was decided recently that ISO 14001 was due for an overhaul. That process began early in 2012. The target for publishing a revised standard is 2015.

It's being revised comprehensively. ISO has recently published a new "high-level structure" for all management system standards, so that all new or revised standards will follow a consistent structure and format. ISO 14001 is being revised to take advantage of this core text and structure, which includes several new clauses, requiring organizations to improve their environmental management systems in various ways.

One aspiration is to drive environmental management up into the corporate level and into strategic business management. There's a new section called the "Context of the Organization," which requires the organization to understand the expectations of stakeholders and have a high-level view of the significant environmental is-

ssues they are facing.

There's also a new section on leadership, requiring high-level leadership, and one on commitment to sound environmental management. These new sections precede the clause on environmental policy. In the current ISO 14001 standard, you start with a policy and proceed with the implementation of the management system. Under the new system, you will start with the understanding and the development of the leadership position, and then you develop the policy and the implementation process.

This is a substantial change in emphasis and practice. There will be a transition period after publication to allow companies with existing systems to adapt. The certification/registration bodies will have a major role to play in helping certified companies to adapt to the changes.

There's also a change in emphasis on improvement. The current standard ends with a top management review of performance. There's now a new section after that called improvement, with the idea being that the cycle doesn't just end with a management review, but is followed by action. That's quite a fundamental change in emphasis on achieving real improvement in environmental performance.

EBJ: What will these revisions mean to organizations that have implemented ISO 14001? What actions will they have to take in order to be compliant under the revised system?

N.L.: It will take time, but it will require companies to strengthen their systems—not just to meet these high-level structure changes, but also to address a number of other challenges. ISO has produced a study document called *Future Challenges* for EMS, and it has a number of recommendations for strengthening the standard.

The document talks about strengthening the strategic links between environmental management and core business activities. It encourages the use of performance indicators. It wants companies to achieve genuine improvement in environmental performance—not just the management systems, but performance. It encourages

life-cycle thinking and consideration of the value chain. This is going beyond the issues the organization can actually control, but where it can influence others up and down the supply chain.

This addresses an area of weakness in the current standard, which had attracted criticism. The document makes recommendations about purchasing, design, and marketing, and having links with those functions in the organization. And it recommends more stakeholder engagement.

I expect that at the next meeting in February of our working group, we'll be ready to move forward and look at the future challenges in more detail. It will be very interesting to see how strongly these recommendations will be reflected in the new standard. The working group has 50 or so delegates from different countries, and, although it can be challenging to get consensus under those circumstances, so far there has been support for these new requirements.

EBJ: What kind of market opportunity do these revisions present for companies like CRA?

N.L.: I think there's a lot of interest from our clients on how ISO 14001 will look in two or three years. That will provide opportunities in helping them meet the new standard, especially if the changes are substantial, in areas like supply chains and integrating environmental management more strategically into the organization. It could prompt companies to act quite differently. It could deliver great benefit to them if they are able to do that.

I think there's also more potential for companies like us to work at a higher level within our client organizations. Responsibility for sustainability and environmental management is taking place at a higher level within organizations, which are listening to their environmental managers more. It varies from client to client and sector to sector, but climate change has been a big driver for elevating environmental management issues to a more strategic level. The Carbon Disclosure Project, for example, has encouraged senior management to understand better the links between environment and reputation. ■

AFTER “EXPLORATORY” 2012, 2020 ENVIRONMENTAL GROUP SEES 2013 AS YEAR OF EXECUTING STRATEGIC PLANS

2020 Environmental Group (San Francisco, CA) is a management consulting firm providing strategic, financial, and merger and acquisition (M&A) advisory services to environmental consulting and engineering firms. The firm was founded in 2010 by Al Spiers, formerly senior vice president and managing director at ENTRIX, which was acquired in 2010 by Cardno Ltd., an Australian environmental and infrastructure consulting and engineering firm that has been acquiring extensively in the United States through acquisition. With its senior executive team and partners, 2020 Environmental Group has built a growing portfolio of small, mid-size, and global environmental clients across the U.S. and has served as the M&A advisor on 12 buy- and sell-side transactions representing a total enterprise value in excess of \$110 million. Al spoke with EBJ about the drivers in the resurgent California and Pacific Northwest marketplace and some of the strategic and financial issues facing their clients in today's economy.

EBJ: What kind of year has 2012 been for the firms you serve? What is the current state of the economy in California and the Pacific Northwest?

Al Spiers: We would call 2012 an “exploratory” year for our clients. 2012 was really the first year of positive growth after the Great Recession. Our clients weren't in a crisis mode and finally had their heads above water. This allowed them to start exploratory thinking about strategic growth, whether opening new paths towards organic growth or making an acquisition.

As for the overall economic climate, California is seeing real positive business growth, almost across the board. Most of our environmental clients are saying that 2012 was their best year since 2008. In some cases, they are seeing 10 to 15% top-line growth.

The Pacific Northwest is on a slower but steadier pace. It was good year for our PNW clients, and they should get about 5% growth, but they don't have the same dynamics that California is seeing right now.

If I had to point to specific examples, we have half a dozen clients who have retained us to move them into new markets, the Pacific Northwest, San Francisco Bay Area, and Southern California geographies, or into new service lines. And they are willing to do it either via a cold start up or small acquisitions.

So I think “exploratory” is a pretty good description of what we see out there.

EBJ: That seems a bit surprising, considering the news reports over the past couple of years about California's budget and financial woes.

A.S.: It's a common East Coast or Midwest perception that California is about to fall into the ocean. Truth is, California is still the ninth largest economy with the world, in the same grouping as France, Germany and Japan. Just last week *San Francisco Chronicle* reported “Bay Area economy looking bright for 2013” and “the Bay Area will continue to outperform the entire nation in 2013. “The evidence is not hard to find. The *Chronicle* reported “a phalanx of construction cranes” across the skyline on projects such as the new Bay Bridge, Transbay Transit Terminal, San Francisco Crosstown Subway, four new hospitals, and renovation of the waterfront to support San Francisco hosting of America's Cup races in 2013. The Center for Continuing Study of the California Economy, said: “2013 will be the year the recovery becomes real to many more people in California, not just for those in the tech sector, and we don't see that abating.”

Southern California is experiencing some of the same growth rates. In Los Angeles, with new taxpayer-approved bond measures, transportation funding is driving the market for highway and light-rail development. Our clients in San Diego,

for example, are seeing 10 to 15% growth, from all things, the real estate development market. Real estate was the death knell for our industry five years ago.

The Pacific Northwest is on a slower growth curve, but in contrast to California, the Seattle and Portland markets had less of a fall in 2009-2011, and are now having less of a rapid pickup.

EBJ: We're talking about some of the drivers for this resurgence now. Let's look at that in a little more depth.

A.S.: To be specific, energy, water, infrastructure, transportation, and urban real estate are all positioned to drive the market for environmental services in California and PNW over the next 12 to 18 months. This does not mean that every firm will benefit from this resurgence. Those firms that have maintained critical mass in key geographies and strong client relationships will do just fine. Others that are hoping a rising tide will lift all boats, but without any taking on new strategic growth actions, could be disappointed.

Surprisingly, the private sector may be the real story in 2013. Real estate as well as industrial and commercial development are pulling projects off the shelf and starting the planning processes. Areas that are the slowest to pick up are traditional municipal projects, such as water/wastewater, and federal. Water districts that can raise water rates to users and don't necessarily depend on state or federal funding will be a source of project work in the coming year.

EBJ: What actions are your clients taking to improve financial performance? Are their margins holding up, or are they under more pressure than ever, and if the latter, what factors are contributing to that pressure?

A.S.: Actually, most of our clients have done a pretty good job at protecting margins through the recession, i.e., their bottom-line profit as a percent of revenue. This is a result of prudent cost controls and efficiencies and conservative (or no) investing in new initiatives over the last four years. For the second half of 2012 and certainly going into 2013, it is now about developing new fresh plans for achieving

incremental growth. I see companies dipping into their cash on the balance sheet (or going to their bankers for low interest credit lines) to open start-up offices, initiatives in new services, and strategies for new markets. Actually, it is exciting to see the energy level for strategic growth planning in these firms.

The other part of your question is, are margins under pressure? That's a market-driven factor. In some market sectors, absolutely. But if you take a closer look at what is driving that, what you will see is pressure on margins in markets that are commoditized, or where the value of the service is not high end. The increase in "design/build" infrastructure projects is an example of how clients are putting pressure on margins. They have figured out this is a way to bundle and therefore reduce billing rates between the participating firms.

As we start to see more economic development-type projects, particularly from the private sector and projects that are schedule-driven, we will see billing rates being less of an issue—for example, with those firms that can cut months off of the permitting process.

EBJ: Is there a growing number of smaller, boutique firms? What's making these firms more attractive to the larger companies?

A.S.: It is simple: the absence of mid-size firms that were acquired and merged into national and global entities in the last five to six years. This void in the middle (\$50 million to \$100 million firms) has created an interest in and an opportunity for smaller boutique firms. In this case, I consider small anywhere from \$2 million to \$25 million in revenue.

Also driving this interest is the fact that large national and global firms are still struggling to achieve true organic growth. Therefore, to reach their strategic growth goals, they need to acquire. And about the only thing left to acquire are the smaller firms.

Smaller firms that are attractive for M&A are those that have a dynamic leadership team of people who have a vision of the future, a culture for growth, and a solid history of financial performance. Firms like

these can command above-average valuations and prices in the M&A market.

The void in the middle is also creating a unique opportunity for smaller firms that are not interested in being acquired but want to stay the course. Do not believe the current rhetoric about the "death of the middle." The same opportunities that allowed the growth of a Dames & Moore, ENSR, or ED&W in the 1990-2010 time frame still exists. In fact, with the growth of the 10,000-plus employee mega-firms, clients like to have a small to mid-size alternative to go to, particularly when they are very good at what they do.

"Companies looking for the top end of the valuation scale, i.e. 6-7X, will need to be higher-performing firms, with consistent growth over the last three years, and strong profit margins, in the range of 14 to 16% of net revenue."

EBJ: Are there firms with particular types of service lines that are especially popular now, or is it pretty much across the board?

A.S.: I'm seeing some interesting service lines right now, but it is market- and geography-dependent. For example, environmental science services for water resource projects in the Central California/Bay Delta area continue to be strong. Much of the renewable energy market, in this case wind and solar in the desert, has slowed down, except for construction monitoring and compliance. Environmental, health and safety (EHS) for industrial manufacturing, particularly for U.S. clients that are outsourcing work to China, India, and Brazil, are taking their U.S. consultants with them to ensure a level of compliance is being achieved on their products.

As the real estate market returns, particularly on the commercial side, we are seeing growth in what many firms call "building sciences," which includes indoor

air quality, asbestos, mold, etc. And finally, I am still a big fan of "restoration engineering" such as river and bay restorations and dam removals. This unique practice is the merger of environmental science and engineering with geomorphology.

In locations such as California, with new air quality "cap-and-trade" regulations, the new business opportunities are still too early to tell.

EBJ: Are you seeing a lot of sellers looking to sell in order to effect an ownership transition, or are other reasons paramount?

A.S.: Ownership transition drives about 50% of the transactions, with the other drivers being a realization that the company (and their employees' careers) has probably reached a ceiling in its present state. Therefore, the driver is a desire to be part of a large organization that opens new career growth opportunities.

Another reason is simply a financial recapitalization that allows the current owners to take some of their shareholder money off the table while staying with the company and growing it to its next level. In many cases, most owners are interested in staying with the new entity, helping to drive the next generation of growth, and then participating in the "second bite at the apple" by selling or recapitalizing in five to six years.

EBJ: Are valuations down from where they were a year or two ago, and if so, what effect is that having on deal flow?

A.S.: Valuations are not necessarily down. What is down is the actual prices being paid for companies. In other words, companies may still be getting six times EBITDA as a valuation, but their EBITDA over the last one to two years is at an all-time low. So, the price is not what it might have been in 2009.

What we are not seeing is the "reported" seven to ten times EBITDA multiples. I think those heady days from the 2007 era are gone, at least for the foreseeable future.

Also, smaller companies, in that less than \$20 million range have historically been valued lower, in the 5-6X range, due primarily because a slight change in their

market or client base could have a major impact on their financial performance.

Companies looking for the top end of the valuation scale, i.e. 6-7X, will need to be higher-performing firms, with consistent growth over the last three years, and strong profit margins, in the range of 14 to 16% of net revenue. Growth and margins of 4-5% will result in 20 to 30% discounts on valuations, in the 4-5X EBITDA range.

EBJ: What's your outlook for 2013, in terms of what your clients will need to do in order to succeed in the coming economic climate?

A.S.: With an improving economy, I recommend growing your profit margins. Too often, firms think of an improving economy as an opportunity to grow top-line revenue and bottom-line profit in terms of actual dollars, but as a result, they also grow the middle lines—i.e., overhead. If you can take a \$25 million company making a 10% profit margin and move it to a \$30 million company making 20% margins, you have not just grown the company, you have substantially increased “shareholder value.”

Second, companies need to think strategically about growth, have a well-defined plan and roadmap, and be willing execute that includes making investments and taking some risks.

Third, act as if you were going to sell the company in two years. It is amazing what performance improvements can be achieved if you are trying to remodel your house for a future sale. Even if you have no intentions of actually selling, run your companies “as if.” My partner Dan Spiers has a great way to putting it: “Would I buy me?” If you think about it that way, you will have a higher-performing company and higher shareholder value. ■

Note: Al Spiers and John Cowdery will facilitate a panel discussion on Strategy, Ownership Transition and M&A at the Environmental Industry Summit 2013, March 7 featuring: Alan Krusi of AECOM, Kim Early, former CFO of EarthTech and EFCG, Glenn Fishler CEO of EORM, Colvin Matheson, Matheson Financial Advisors and Sam Gabbita, Element Capital Partners.

GLOBAL PRODUCT SAFETY RULES, SUPPLY-CHAIN NEEDS DRIVE BUSINESS FOR 3E

3E Company (Carlsbad, CA), a subsidiary of **Verisk Analytics** (Jersey City, NJ), provides data, products, and services for environmental health and safety (EHS) and supply-chain compliance and risk management. This suite addresses the entire product and chemical supply chain and life cycle and includes regulatory research; product data for compliance and risk management; safety data sheet (SDS) authoring, distribution, and management; transportation; emergency response; training; regulatory reporting; and hazardous waste management. 3E operates a “24/7/365” EHS mission-control call center supported by what the company claims to be the world's premier hazardous substance database of global regulatory and compliance information. Founded in 1988, the company has additional offices in Ohio, Maryland, Tennessee, Quebec, and Denmark. Robert Christie is the company's president and CEO.

EBJ: What kind of year was 2012 in terms of revenue growth for your firm? What were some of the highlights?

Robert Christie: 3E executed a number of strategic product rollouts and enhancements in 2012, demonstrating “first and only to market” product leadership on a number of fronts, including the conceptualization, funding, and launch of a new supply-chain product-compliance practice to help companies navigate the complexities associated with achieving product- and substance-level regulatory compliance while also helping mitigate risk in the supply chain.

3E also achieved continued sales growth in 2012, including strategic deals on the SAP EHSM platform. The company also forged a number of new partnerships and alliances. In addition, the company continued to expand globally, penetrating the Latin American market and securing partnerships in China.

EBJ: What are the biggest compliance challenges facing manufacturers today?

R.C.: Manufacturers with complex supply chains are struggling under the burden of spiraling regulations. Companies are struggling to analyze, share, and distribute key information related to supplier compliance and corporate risk across various functional groups.

Once data is acquired, there are no methods for validation or maintenance to ensure data is accurate or kept up to date. Suppliers need help in gaining access to and understanding the global product

compliance regulations with which they must comply. The ability to effectively ensure supplier product compliance is critical to business continuity and to avoid supply chain disruptions.

EBJ: What product or service offerings have been providing the best opportunities for 3E, and what factors are driving those opportunities?

R.C.: New and existing regulatory initiatives drove the rapid adoption of multiple 3E services and solutions. 3E continued to provide support for the U.S. Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS) for the Globally Harmonized System of Classification and Labeling of Chemicals (GHS)—known as HazCom 2012—across all business units and products, with the 3E MSDgen SDS authoring platform rolling out as the first solution of its kind on the market to facilitate conformance with U.S. OSHA GHS.

We also experienced major promotion and growth in to Toxic Substances Control Act (TSCA) services, and we launched a new Exposure Scenario service to streamline conformance with Europe's Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) regulatory framework.

EBJ: Supply chain product compliance has become an increasing source of concern. How can companies mitigate risk in the supply chain and facilitate compliance in the context of new requirements?

R.C.: Data is the critical component

in the mitigation of supply-chain risk. The lack of readily available data for both customers and suppliers is a huge burden for manufacturers. A central repository of regulatory and product information can reduce supply-chain risk while minimizing data management costs.

Validating all information throughout the supply chain is key to reducing risk throughout the supply chain. Change-management processes are necessary to ensure that once the data is collected, it is continually updated according to regulatory changes and ever-changing customer requirements.

EBJ: How have you taken advantage of the “revolution” in mobile communications (iPhones, tablets, etc.)?

R.C.: Yes, 3E has embraced advances in mobile communications to optimize value for its client applications. In 2012, we launched 3E Mobile – SDS, the first mobile site of its kind to offer instant access to hazardous material inventories and associated safety data sheets via smartphone. 3E Company’s database of more than 4.5 million SDSs is now available for portable viewing, saving valuable time and helping bolster EHS regulatory compliance efforts by ensuring reliable access to critical product safety data and information.

In addition to having access to their inventory and SDSs, customers that have Universal Product Codes (UPCs) associated with their products can also scan barcodes and automatically retrieve the relevant SDS and related information on their smartphone. This feature dramatically simplifies SDS management by enabling users to access their inventory and database of SDSs from their smartphone.

With mobile capability, companies with employees who work remotely or in rugged environments—in particular those in the utility, construction, transportation, and manufacturing industries—will benefit from improved access to SDSs and related information via smartphone.

Access to this type of information is invaluable in the event of a spill or emergency, which often occurs in locations where computers are not easily accessible. With

mobile capability, responders can instantly access product information at the scene of the incident, regardless of its location, and react in a timely manner to mitigate its impact, prevent injuries, and reduce damage to the facility.

EBJ: What are corporate EHS users looking for beyond the software itself?

R.C.: Companies are looking for help in the management of environmental data, workflow, and business processes with highly specialized solutions. Challenges and solutions are not specifically limited to the software. In fact, many times it may be the actual data, information, and content, and not just the software, that is the most difficult to manage, and that often requires highly specialized domain expertise to manage effectively.

“With mobile capability, companies with employees who work remotely or in rugged environments will benefit from improved access to SDSs and related information via smartphone.”

This problem will intensify as regulations continue to increase in number and complexity. Software is only one piece of the overall equation, and not always the most important piece. The best solution providers show not just functions and features, but also deep and specialized knowledge and industry thought leadership. The environmental and compliance solutions that succeed in the marketplace are those that not only bring comprehensive functionality, timely enhancements, scalability, and breadth, but also add value on the content and data side. One particularly attractive capability now is in the globalization of compliance and, specifically, helping global companies manage conformance across multiple geographical jurisdictions.

EBJ: What new areas of monitoring are needed in today’s regulatory environment?

R.C.: Regulatory monitoring has become a critical specialized function, within a broader set of capabilities including regulatory data aggregation and impact analysis. Taken together, these functions are especially important in specialized areas of risk management and compliance, such as workplace safety and product stewardship. Global environmental compliance requires effective change management and comprehensive analysis in the context of constant and rapid global regulatory change. These functions are essential to a successful environmental regulatory strategy.

EBJ: What is 3E’s current service structure and deployed field presence?

R.C.: 3E has an optimized account management and service and support infrastructure in place to manage close and ongoing relationships with corporate users. Close relationships based on trust between providers and users are critical in the world of environmental regulatory compliance. Our service and support teams are highly trained, experienced, and specialized in this world. We deploy a direct field presence to manage relationships in defined geographic territories, including solution engineers for technical support and account managers to support the relationships.

EBJ: What is your company’s strategy for growth over the next five years?

R.C.: Future plans for 3E include further strengthening our position as the ultimate clearinghouse for EHS and supply-chain information, data, and guidance for product and workplace compliance and risk management. 3E will support compliance for increasingly strict regulations and requirements, such as GHS and REACH, that are garnering increased attention from the executive suite, and we’ll continue the development of associated new content offerings.

We also plan to further address the need for data integration support for customers’ internal applications, increase our presence in specific industries, and opportunistically pursue strategic partnerships. Our vision for the future includes deeper integration, new content, geographical expansion, and partnerships. □

INTEGRATED UTILITIES: MANAGING WATER, ORGANICS, AND BIOENERGY TOGETHER

By Dan Noble, President, Noble Resources Group

The environmental industry, as defined in EBJ over the past 25 years, encompasses the water, waste, and energy utility sectors as well as the concepts of sustainability and sustainable development. Sustainability transcends, but includes, the environmental industry's historic focus on air, water, and solid waste, but the emerging "triple-bottom-line" approach to management—analyzing benefits to people, planet, and profits in a comprehensive approach to business, society and environmental resources—is often too complicated and unwieldy to use for practical policy, municipal operations, or business strategy.

We at Noble Resources Group have discovered, through our work with water and wastewater agencies, organics products manufacturers, and bioenergy production project developers, that there is a possible middle ground between environmental management and sustainability contained in what we call the "integrated utilities" approach to renewable resource management.

The benefits of this new approach include, but are not limited to, the following: reducing water use and water pollution; building renewable carbon management; reducing organic waste and greenhouse gases; reducing fossil fuel use; reducing oil imports and building energy security; and creating a sustainable economy.

Beyond realizing these benefits, what is driving this new, integrated approach to utility management? The main driver is the pressure on the economy to transition from non-renewable to renewable resources, and to do so in a cost-effective way rather than a budget-busting one.

These drivers can in turn be broken into several categories. Nature itself already behaves in an integrated resource fashion, and harmonizing with natural systems can be a more sustainable way of operating. In addition, the increasing per-capita consumption of the earth's finite resource base makes efficiency improvements imperative.

Another driver is information technology advances, which today allow us to manage large complex data sets from personal devices, and to interact globally from home or office. Another driver is the pressure of global warming on the main life support systems of water, plant life, and energy.

Last but not least is the sustainability imperative itself—the compelling desire to develop all regional economies to maintain the health of natural systems while increasing the social and financial well-being of all people.

For information to be useful in creating simple yet robust mechanisms for business and utility development, investment, and operations, it must be presented in real-time, constantly updatable "dashboards" for the resource user and waste generator.

TEAR DOWN THOSE SILOS

So what is an "integrated utility"? The main utility functions of facilities and municipalities, required for our modern lifestyle and economic production, already include water, energy, and solid waste management. These essential and potentially renewable resources already relate to the key environmental media regulated by the U.S. Environmental Protection Agency (EPA)—i.e., water (the Clean Water and Safe Drinking Water acts), air (Clean Air Act, most of which is derived from burning of non-renewable fossil fuels), and land quality (subtitles C & D of the Resource Conservation and Recovery Act).

The protection of these resources has, of course, been the focus of the environmental industry for the past 40-plus years. However, the evolution of the water, energy, and solid waste utilities over the past 150 years has three important characteristics that actually provide some barriers to the transition to an integrated management approach. These include:

- Isolation from each other; the utility functions of water, wastewater, energy, and solid waste management are separate.
- The supply-side focus of harvesting a resource, using it once, and depositing the waste residuals back into the environment (water, air and land).
- The non-renewable practices of our water, energy, and solid resource management systems, which are barriers to a more integrated management approach.

Nature itself provides the clues to overcoming these barriers. Because the major use of fresh water on the supply side is to grow plants, and because plants fix atmospheric carbon and nitrogen into the organic "6 Fs" of "food, fiber, feed, fuel, flowers, and fertilizers," water is already intimately tied to organic carbon and nitrogen as our prime bio-nutrients. And because most air pollution results from non-renewable energy use (power plants and transportation fuels), the air pollution solution, especially greenhouse gas emissions reduction, is intimately tied to switching to renewable carbon bioenergy production and use.

The integrated utility is not just a new way of thinking about the interrelationships of water, organics, and bioenergy; it also provides a tangible new way of co-managing these resources for the benefit of communities, businesses, and the environment. Integrated utilities management provides a "triple win" by creating a tangible pathway toward actual sustainability of the specific necessary renewable resources of water, organics (biogenic carbon and nitrogen molecules), and bioenergy.

INFORMATION MANAGEMENT AT THE NEXT LEVEL

The usefulness, however, of the integrated utilities approach to the co-management of the critical interrelated renewable

JUMP INTO THE VALUE CYCLE

We have used the term “value cycle” a few times in this discussion. A value cycle is a new concept to refer to the collection, transportation, processing, marketing, and use of renewable resources, be they organic, inorganic, or water (see nearby diagram).

Value cycles, like organic life cycles, are constantly co-evolving with other life cycles, in many unpredictable and astonishing ways. The main elements, however, are always the same in each value cycle, be it organics, water, or bioenergy. The generator, for example, produces the organics residuals (biosolids, food scraps, green plant material or manure). If not managed on-site, then these residuals must be hauled to an off-site processing facility, be it composting, bioenergy production, or materials remanufacturing, such as fiberboard. Then the material is marketed, used, and discarded as waste in one form or another, beginning the cycle again.

27 FLAVORS

The value cycles exist for each renewable resource and at each level of organization (micro-economic, meso-economic, and macro-economic). The dashboards can include the interactions of three value cycles (water, organics, and bioenergy), the three levels of organization (facility, community, global), and the three facility types (residential, commercial industrial). This means that there are a minimum of 27 individual market types within the integrated utilities approach. For any given facility type, however, that number drops to nine considerations relative to resources and levels of organization. This value-cycle analysis becomes the basic form of analysis for developing any integrated utility at the facility and local community levels.

Using the models to make investments in integrated utility development soon brings the organization around to adapting the integrated utility dashboards, described above into operational service. The types of informational dashboards and operational systems are geared to the specific strategic objectives of the enterprise.

It is most likely owing to the operational complexity and investment patterns of the water, organics, and energy utilities

that, in the past, communities, designers, and investors have kept separate these naturally integrated resources. It can boggle the mind—to say nothing of a utility’s management systems—to have to consider 27 interacting resource markets, including their technologies and operations, at once. Until now in our civilization’s history, as noted, it has been more efficient to manage these resources from the supply side in isolation.

Of course, none of these 27 interacting resource markets is more important than any of the others, as each makes up a level of organization within every community worldwide. However, there are some observations about these markets that bear mentioning.

Now that food waste is in the recycling waste stream, and not simply being landfilled, both wastewater and solid waste sanitation agencies are having to deal with these three resources at the same time, and in ever larger quantities.

No one market niche is right, or “the best.” Because all of these 27 market niches already exist, and will and must continue to exist, there is no one correct or best niche or approach. For the purposes of integrated utilities, we simply use this framework as a point of inquiry to answer the question, “How are we building efficient synergies?” This is especially true at the local level, where each facility and regional utility manager must regard the micro- to meso-economic, supply-to-demand components of each category of resources.

Sanitation agencies (water and solids) are typically involved all at the same time. Now that food waste is being brought into the recycling waste stream, and not simply being landfilled, both wastewater and solid waste sanitation agencies are having to deal with these three resources at the same time, and in ever larger quantities. The point of inquiry is, “How strategic and logistical

are we?” in the integrated utilities management of these resources.

There are substantial synergies among the solids, water and energy markets. The synergies and potential efficiencies among the 27 markets afford the opportunity to develop policies, enterprise strategies, and operational tactics to build resource value and system efficiency, especially with the other sources of renewable energy, such as solar and wind, in addition to bioenergy.

Still a goal for all our communities! These 27 market niches—many more, when you factor in all the diversity of facility types, such as restaurants, offices, parks, and homes, etc.—can seem overwhelming to the integrated utility planner. Nevertheless, this market activity is what is occurring here and now.

Aren’t 27 markets too many for any one entity to manage? No doubt this was the case prior to the information age. However, each of those 27 markets can be articulated for any given situation. And they can also be provided in a complete package for the particular integrated utility in question, be it at a particular facility or in a local community. The complexity can be broken down into simple decision-support systems that greatly simplify the inherent complexity of the integrated utility development and operations process.

Very likely, the only entities that would be interested in the integrated utility perspective at a regional or global level are the larger state or national utility organizations. In addition, some national and multinational corporations may find the integrated perspective useful for regional or global strategic planning and investments. Otherwise, the dashboards will be most useful for facility development and operations, be they residential, commercial or industrial facilities. Rest assured, however—“integrated” is the future of water, organics, and bioenergy management. ■

Noble Resources Group (Julian, CA) is a regulatory, market and project leadership firm dedicated to developing integrated water and wastewater utility and manufacturing approaches to renewable resource management. Dan Noble can be reached at danwyl-dernoble@gmail.com.

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