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The Top Environmental Firms

Winning Market Share, and Buying It

In both the private and public sectors, sustainability and attention to resource cleanup, protection and reuse are the trends of the day. The Top 200 Environmental Firms have been engaged in all sectors of the green marketplace for years, even decades. Now, they

are reaping new rewards from this growing cachet of environmental correctness. Infrastructure spending, buoyant economies and the firms' own push for size and payback are combining to generate another year of solid results for the Top 200. But some executives worry about signs of trouble that could stunt firm growth a little, or a lot.

Total revenue for the Top 200 in 2006 climbed 12.5% to \$42.2 billion, another positive result to add to the previous year's 13.6% hike and a four-year trend of upward market growth overall and in most key environmental market segments (see chart, p. 40).

The strength of the U.S. market alone kept many environmental firms close to home. Domestic revenue grew 13.4% in 2006 to \$36.4 billion. But firms are also following clients around the world or benefitting from new funding sources for cleanup and infrastructure upgrade and expansion abroad, as well as new environmental awareness. "We had a great year last year, and it was all organic," says Richard Fox, CDM president. "Growth came in all of our sectors: water, remediation, municipal, private and federal."

The Top 200's international revenue rose 7.4% to \$5.8 billion in 2006. Asia's flat market a year ago has abruptly

reversed itself in the 2007 survey. The same number of firms reporting revenue there in the last two years saw a 65.1% rise in 2006.

Some results among the 2007 Top 200 are related to changes in the firms participating. The list's growth rate might have been more significant if one potential behemoth had been included. *EnergySolutions*, a Utah-based nuclear waste cleanup and management giant, last year acquired two former key players on the list, BNFL and GTS Duratek, and did not participate as it reportedly prepares to go public.

Changing Faces.

Even without *EnergySolutions*, the list is robust. CH2M Hill Ltd. retained its top spot, increasing environmental revenue by more than \$550 million. Bechtel dropped to third place, with environmental revenue likely lost to new work in oth-

er booming construction sectors, but The Shaw Group Inc. zoomed from 12th place to fourth on the strength of its domestic waste cleanup work.

Two more firms—MWH Global Inc. and Black & Veatch—joined the nine others in the billion-dollar club, and two others, Earth Tech Inc. and AECOM Technology Corp., are just shy of that figure and could become members next year. “Markets are very healthy right now,” says Steven Guttenplan, CEO of AECOM environmental subsidiary Metcalf & Eddy Inc. “In the last three to four years, we have had a strong sustained volume of growth.”

Environmental Resources Management, formerly The ERM Group, held onto its position as the leading firm with 100% of its revenue from environmental work, increasing the total by more than \$65 million. Malcolm Pirnie rose to second place, greatly assisted by the departure of BNFL and Duratek.

Green Machine

This year's Top 200 list is supported by additional environmental market data from design firms that participated in ENR's separate Sourcebook survey.

Tables that show design-firm revenue rankings in selected environmental breakout markets such as asbestos abatement and sanitary and storm sewer work are displayed on pp. 45-49.

Former Vice President Al Gore's 2006 movie, “An Inconvenient Truth,” about the perils of global warming and climate change spurred by greenhouse-gas emissions, resonated with people around the world and their leaders.

“Politicians are willing to spend more money than they might have otherwise,” says Robert B. Uhler, CEO of MWH Global. “The issues used to be crime, housing and pensions. Now it's

The 2007 Top 200 Firms Get Bigger

Markets Show Need and Investment

TYPE OF WORK	REVENUE IN \$ MIL.	% OF TOTAL ENVIR. REV.
HAZARDOUS WASTE	12,490.2	29.6
NUCLEAR WASTE	4,582.0	10.9
WATER	8,004.2	19.0
WASTEWATER	8,486.9	20.1
AIR	2,811.9	6.7
ENVIRONMENTAL SCIENCE	2,611.8	5.8
ENVIRONMENTAL MANAGEMENT	2,433.1	6.2
OTHER	783.1	1.9
PRIVATE	15,188.1	36.0
FEDERAL	13,724.2	32.5
STATE/LOCAL	13,291.0	17.

Most Regions Attract Companies

	# OF FIRMS WITH ENVIR. REV. IN:	REVENUE IN \$ MIL.	% OF TOTAL INT'L MARKET
EUROPE	45	1,953.1	33
AUSTRALIA/NEW ZEALAND	13	382.8	7
ASIA	34	727.2	12
CANADA	40	1,157.5	20
LATIN AMERICA	42	441.8	8
MIDDLE EAST	22	1,089.5	19
AFRICA	9	78.9	1

*BASED ON 2006 ENVIRONMENTAL REVENUE IN THE TOP 200 FIRMS SURVEY. NUMBERS ROUNDED UP OR DOWN.



Drilling Down. More work flows from water supply projects.



▲ Pipeline. Staffing environmental jobs will challenge and constrain Top 200 firms.

global warming. This is tilting some projects to go that would have been on the cusp."

Adds Dale Sands, senior vice president at Earth Tech, "We are at the tipping point for the growth of sustainable development with a more universal movement to minimize a company's footprint and environmental effects while achieving compliance. We're talking about energy management, water use and reuse, natural resources and optimization of industrial processes to produce less waste and consume less energy."

Green issues are a top priority of the now Democrat-ruled 110th Congress. More than 70 global warming bills, amendments and resolutions related to global warming have been introduced since the beginning of 2007. Most measures would require a reduction in carbon emissions, some calling for traditional cap-and-trade measures and others demanding more research into such technologies as carbon capture and sequestration.

The energy bill passed by the Senate last month includes provisions that would encourage research and development into renewable energy sources, as well as more reliance on renewable energy.

Both Sen. Barbara Boxer (D-Calif.), chair of the Senate Environment and Public Works Committee, and Speaker of the House Nancy Pelosi (D-Calif.) have vowed to pass legislation that would

put caps on carbon dioxide emissions. And in another sign of federal lawmakers' green commitment, the House of Representatives voted in March to establish a new Select Committee on Energy Independence and Global Warming, chaired

The Top 20 All-Environmental Firms*

Total: \$3.99 billion

1	ENVIRONMENTAL RESOURCES MANAGEMENT	550.0
2	MALCOLM PIRNIE INC.	344.2
3	LVI SERVICES INC.	323.8
4	GARNEY HOLDING CO.	312.9
5	BROWN AND CALDWELL	287.2
6	WESTERN SUMMIT CONSTRUCTORS INC.	245.4
7	SEVENSON ENVIRONMENTAL SERVICES INC.	235.9
8	EQ-THE ENVIRONMENTAL QUALITY CO.	206.0
9	ENVIRONMENTAL QUALITY MANAGEMENT INC.	188.0
10	ENVIRON	186.7
11	INFILTRATOR SYSTEMS INC.	169.4
12	CAROLLO ENGINEERS P.C.	157.5
13	ENTACT LLC	131.6
14	ENVIROCON INC.	124.7
15	HAZEN AND SAWYER P.C.	119.8
16	SECOR INTERNATIONAL INC.	118.3
17	SCS ENGINEERS	113.2
18	COMPASS ENVIRONMENTAL INC.	109.8
19	GROUNDWATER & ENVIRONMENTAL SERVICES INC.	105.5
20	J.R. FILANG CONSTRUCTION CO. INC.	101.1

*ENVIRONMENTAL REVENUE WAS 100% OF 2006 TOTAL COMPANY REVENUE BASED ON ENR'S SURVEY OF THE TOP 200 FIRMS. FIGURES ARE IN \$ MILLION AND ARE ROUNDED UP OR DOWN.

The Top 20 Firms in Consulting/Studies

Total: \$5.24 billion

1	CH2M HILL LTD.	658.4	11	SAIC	177.6
2	URS CORP.	653.0	12	WESTON SOLUTIONS INC.	172.6
3	ENVIRON. RESOURCES MANAGEMENT	533.5	13	MACTEC INC.	164.6
4	EARTH TECH INC.	442.7	14	MALCOLM PIRNIE INC.	158.3
5	TETRA TECH INC.	415.1	15	ARCADIS	152.3
6	THE SHAW GROUP INC.	250.2	16	ENVIRON	130.7
7	MWH GLOBAL INC.	240.4	17	STANTEC INC.	123.4
8	GOLDER ASSOCIATES CORP.	237.3	18	BROWN AND CALDWELL	106.9
9	PARSONS CORP.	233.3	19	ATC GROUP SERVICES INC.	104.7
10	AMEC	182.0	20	CDM	101.2

FIGURES ARE FROM ENR'S SURVEY OF THE TOP 200 ENVIRONMENTAL FIRMS, ARE IN \$ MILLION AND ARE ROUNDED UP OR DOWN.

The Top 20 Firms in Design/Engineering

Total: \$8.65 billion

1	CH2M HILL LTD.	1,844.1	11	URS CORP.	296.8
2	BECHTEL	1,280.1	12	THE SHAW GROUP INC.	250.2
3	AECOM TECHNOLOGY CORP.	900.9	13	FLUOR CORP.	219.3
4	MWH GLOBAL INC.	543.4	14	PARSONS BRINCKERHOFF INC.	171.9
5	TETRA TECH INC.	518.8	15	STANTEC INC.	137.1
6	CDM	474.8	16	CONESTOGA-ROVERS & ASSOCIATES	134.0
7	BLACK & VEATCH	456.9	17	BROWN AND CALDWELL	133.6
8	JACOBS ENGINEERING GROUP INC.	448.9	18	BURNS & MCDONNELL	131.9
9	PARSONS CORP.	328.7	19	SAIC	120.0
10	HDR	318.4	20	EARTH TECH INC.	117.4

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▲ **Flow.** Water supply work, such as at California's Hetch Hetchy reservoir, grew 18% for the Top 200.

The Top 20 Firms in Construction/Remediation

Total: \$9.76 billion

1 THE SHAW GROUP INC.	1,286.7	11 LVI SERVICES INC.	323.8
2 BECHTEL	1,148.8	12 ALBERICI CORP.	271.1
3 FLUOR CORP.	1,070.5	13 MWH GLOBAL INC.	261.3
4 CH2M HILL LTD.	1,039.7	14 WESTERN SUMMIT CONSTRUCTORS INC.	245.4
5 KIEWIT CORP.	597.1	15 GARNEY HOLDING CO.	241.0
6 BLACK & VEATCH	461.9	16 SKANSKA USA INC.	240.5
7 LAYNE CHRISTENSEN CO.	450.7	17 SEVENSON ENVIRON. SERVICES INC.	234.3
8 THE WALSH GROUP LTD.	433.6	18 PCL CONSTRUCTION ENTERPRISES INC.	219.8
9 JACOBS ENGINEERING GROUP INC.	422.7	19 ARCADIS	217.6
10 WASHINGTON GROUP INT'L.	374.9	20 BATTELLE	216.4

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The Top 20 Firms in Hazardous Waste

Total: \$9.02 billion

1 VEOLIA ENVIRONNEMENT-N. AMERICA	1,921.5	11 LVI SERVICES INC.	323.8
2 THE SHAW GROUP INC.	1,393.9	12 SAIC	288.0
3 WASHINGTON GROUP INT'L. INC.	813.4	13 SEVENSON ENVIRON. SERVICES INC.	235.9
4 BECHTEL	533.4	14 ENVIRON. RESOURCES MANAGEMENT	225.5
5 JACOBS ENGINEERING GROUP INC.	531.7	15 WESTON SOLUTIONS INC.	192.9
6 CH2M HILL LTD.	474.9	16 EQ-THE ENVIRONMENTAL QUALITY CO.	164.8
7 PARSONS CORP.	445.4	17 ENVIRON. QUALITY MANAGEMENT INC.	161.7
8 URS CORP.	445.2	18 CONESTOGA-ROVERS & ASSOCS.	153.4
9 ARCADIS	397.1	19 CDM	147.9
10 EARTH TECH INC.	325.2	20 AECOM TECHNOLOGY CORP.	138.6

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by Rep. Edward Markey (D-Mass.)

Kent Angelos, vice president of Gold-er Associates Inc., says some clients have sought assistance with carbon-capture and sequestration technology. "We are actively working on a project in the U.S." he says. "Not only are we looking at other projects in that area, but our existing clients are coming to us and asking us to consider these issues as we work on their permitting and assessment projects."

Nuclear Renaissance

As concern over global warming increases, interest in safer nuclear power has grown, leading to more work for firms that perform environmental assessments as part of permitting and licensing requirements for new plants, says John Corn, Enercon's vice president of environmental services. "People have [awakened] to the issue, and that has helped fuel interest in the nuclear sites," he says.

Enactment of the 2005 Energy Policy Act, which created incentives for new nuclear plants, has led many utilities to begin applying for combined construction and operating licenses for new plants. The first new ones are set to come on line around 2015.

Enercon is managing licensing-related environmental assessments for two proposed plants for NuStart Energy, a consortium of nuclear power firms that includes Baltimore-based Constellation Energy and Duke Energy, Charlotte, N.C. The consulting firm also will complete environmental reviews for a proposed new plant at the Bellefonte nuclear site in Scottsboro, Ala., and at Grand Gulf nuclear station near Port Gibson, Miss. Revenue in the environmental science category increased 14.4% in 2006.

Dan McCarthy, president and CEO of Black & Veatch's global water business, says that as energy companies continue to seek to find ways to reduce their output of carbon, some customers—including wastewater treatment plants and facilities—will see an impact. "Water and wastewater utilities are going to be asked to become more green," he says. Plants in the near future will consider renewable

The Top 20 Firms by Type of Client

PRIVATE: Total: \$9.70 billion

1	VEOLIA ENVIRONNEMENT.-N. AMERICA	1,885.6	11	ARCADIS	369.9
2	URS CORP.	1,024.0	12	TETRA TECH INC.	324.3
3	BECHTEL	933.4	13	WASHINGTON GROUP INT'L. INC.	288.7
4	CH2M HILL LTD.	867.0	14	THE SHAW GROUP INC.	285.9
5	BLACK & VEATCH	802.1	15	CONESTOGA-ROVERS & ASSOCIATES	246.6
6	ENVIRON. RESOURCES MANAGEMENT	517.0	16	LVI SERVICES INC.	210.5
7	AECOM TECHNOLOGY CORP.	450.5	17	MACTEC INC.	187.8
8	EARTH TECH INC.	406.5	18	TRC COS. INC.	183.7
9	FLUOR CORP.	386.9	19	ENVIRON	177.4
10	GOLDER ASSOCIATES CORP.	378.7	20	INFILTRATOR SYSTEMS INC.	169.4

STATE/LOCAL: Total: \$7.96 billion

1	CH2M HILL LTD.	1,028.9	11	HDR	285.4
2	VEOLIA ENVIRONNEMENT.-N. AMERICA	1,006.0	12	WESTERN SUMMIT CONSTRUCTORS INC.	238.1
3	MWH GLOBAL INC.	888.3	13	GARNEY HOLDING CO.	234.7
4	CDM	490.4	14	AECOM TECHNOLOGY CORP.	225.2
5	KIEWIT CORP.	431.1	15	MALCOLM PIRNIE INC.	220.3
6	THE WALSH GROUP LTD.	410.8	16	PCL CONSTRUCTION ENTERPRISES INC.	215.4
7	EARTH TECH INC.	388.5	17	PIZZAGALLI CONSTRUCTION CO.	211.8
8	BLACK & VEATCH	362.1	18	SKANSKA USA INC.	204.4
9	LAYNE CHRISTENSEN CO.	361.5	19	TETRA TECH INC.	194.6
10	PARSONS CORP.	296.9	20	ALBERICI CORP.	194.4

FEDERAL: Total: \$12.03 billion

1	BECHTEL	1,733.5	11	SAIC	345.6
2	CH2M HILL LTD.	1,701.7	12	AECOM TECHNOLOGY CORP.	225.2
3	THE SHAW GROUP INC.	1,393.9	13	WESTON SOLUTIONS INC.	197.7
4	WASHINGTON GROUP INT'L. INC.	1,329.1	14	CDM	179.0
5	FLUOR CORP.	902.9	15	THE LOUIS BERGER GROUP INC.	169.5
6	TETRA TECH INC.	778.3	16	ENVIRON. QUALITY MANAGEMENT INC.	169.2
7	BATTELLE MEMORIAL INSTITUTE	753.5	17	AMEC	145.6
8	JACOBS ENGINEERING GROUP INC.	679.8	18	EARTH TECH INC.	108.4
9	PARSONS CORP.	657.4	19	ENVIROCON INC.	99.7
10	URS CORP.	385.9	20	MWH GLOBAL INC.	73.2

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sources of energy as a power source, use more sustainable materials and take "an overall greener approach to design, construction and operation," McCarthy says.

M&E also sees more attention to wastewater recycling and energy production at treatment plants. "There's a lot of carbon in wastewater and a lot of residuals to be reclaimed. "About 3% to 4% of U.S. emissions come from wastewater treatment plants," says Larry Van der Venter, M&E's director of global water practice.

The firm is now talking to the city of San Francisco to recycle oil and grease in the city's sanitary sewer system to use as fuel. Of 17 firms participating in the city's recent request for proposals for a \$1.5-million recycling pilot project, M&E was the only one that was not a power company and was familiar with water recycling issues, claims Van der Venter, who notes a similar project being discussed in Provincetown, Mass. "There are many opportunities for new technology in this," he says.

The move to curb industrial and other facility emissions is pushing a lot more air-pollution control work to firms, prompting nearly a doubling of 2006 revenue in that category, with significantly higher numbers likely in future surveys.

Hazardous waste cleanup, including brownfields, asbestos and lead abatement, remained the market leader. The Top 200 category boosted its total nearly 24% on the strength of more private-sector spending, twice last year's increase. Government-driven nuclear waste cleanup, however, is maturing as U.S. Dept. of Energy site remediation is completed. The market category saw a 30.5% revenue falloff in 2006, which could also be related to EnergySolutions' non-appearance on the list. But new DOE site cleanup contracts and work in the budding U.K. nuclear site cleanup market are expected this year.

"We've seen a huge growth in brown-field spending and a growing industrial hygiene business," says Chris Vincze, CEO of engineer TRC Cos., ranked 39th on the list after a two-year absence amid a company turnaround from previous losses. "As corporations earn well, they will spend money to clean up old sites," he says. "Sarbanes-Oxley requirements are pushing that."

CDM's Fox says the market "has stayed surprisingly strong, both privately and federally. Both have shifted their focus to delivery." He notes that companies and agencies "just want the projects off the books, and there is a heavy focus on design-build to get it done. I think that has kept the market very robust." Fox notes a major shift toward biological cleanup approaches such as bioaugmentation and away from the traditional pump-and-treat.

"Design-build was our biggest source of growth," says Fox. "We were well positioned for that growth because it was heavily water- and hazardous-waste based."

The new design-build markets are the result of a shift in priorities. "Three years ago, we wouldn't have been focused on that delivery system with federal clients,"

