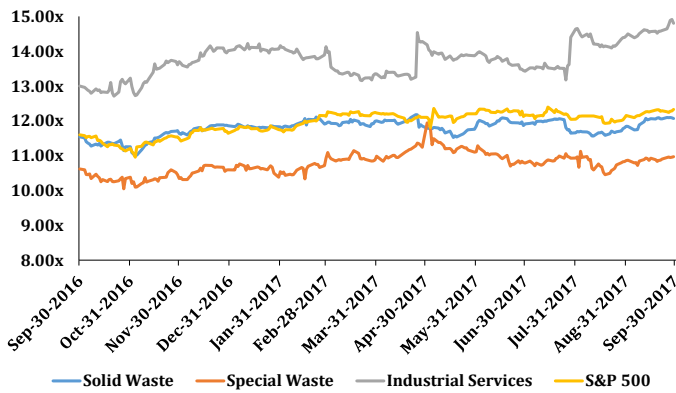


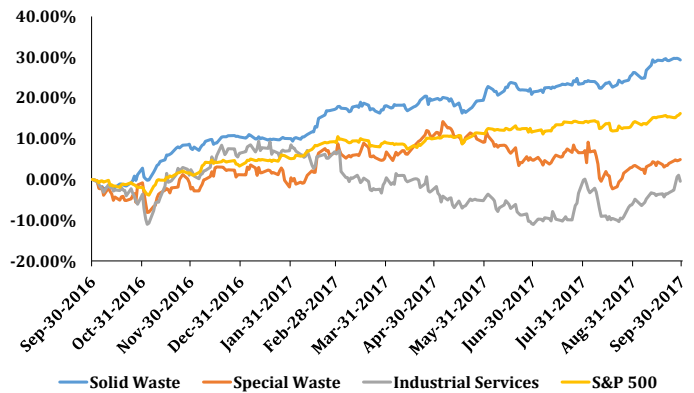
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Environmental Services LTM TEV/EBITDA



Environmental Services LTM Share Price (Shown as % change)



Indices Performance (% change)

	September 2017	LTM		September 2017	LTM
S&P 500	1.7%	16.2%	Solid Waste	2.4%	29.3%
Dow Jones	1.9%	22.4%	Special Waste	1.5%	4.9%
NASDAQ	0.9%	22.3%	Industrial Services	5.5%	(0.5%)

(Source: CapitalIQ)

Largest Environmental Services Movers and Losers (largest % changes in the month of September)

CECO Environmental Corp.	13.3%	Quest Resource Holding Corporation	(15.7%)
Fuel Tech, Inc.	13.0%	Industrial Services of America, Inc.	(14.4%)
Casella Waste Systems, Inc.	11.8%	Sharps Compliance Corp.	(3.4%)
Heritage-Crystal Clean, Inc.	11.5%	Stericycle, Inc.	(0.4%)
Perma-Fix Environmental Services, Inc.	7.0%		

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Select Public Trading Statistics (as of 9/30/2017)

Solid Waste:

(\$ in millions, except per share data)

Company	Share Price 09/30/2017	% of 52 Wk High	Market Capitalization	Enterprise Value	Valuation Multiples			PE Multiples			LTM Operating Margins			Net Debt/EBITDA	
					TEV/Total Revenue	TEV/EBITDA	TEV/EBIT	LTM P/E	CY17 P/E	CY18 P/E	Gross	EBIT	EBITDA		
Waste Management, Inc.	WM	\$78.27	99.3%	\$34,442	\$43,488	2.1x	11.5x	17.7x	26.8x	24.6x	22.6x	37.6%	17.9%	27.3%	2.3x
Republic Services, Inc.	RSG	\$66.06	98.3%	\$22,247	\$39,994	3.1x	11.1x	18.5x	33.9x	27.8x	25.1x	38.4%	16.9%	28.0%	2.8x
Waste Connections, Inc.	WCN	\$69.96	98.9%	\$18,444	\$22,061	5.0x	16.1x	28.9x	59.5x	34.5x	30.6x	41.3%	17.3%	31.1%	2.6x
Advanced Disposal Services, Inc.	ADSW	\$25.19	99.3%	\$2,226	\$4,149	2.9x	10.5x	31.5x	NM	50.0x	41.5x	37.5%	9.0%	27.4%	4.9x
Casella Waste Systems, Inc.	CWST	\$18.80	98.3%	\$790	\$1,291	2.2x	11.4x	25.0x	NM	30.8x	27.5x	32.5%	8.9%	19.4%	4.4x
Meridian Waste Solutions, Inc.	MIRD	\$1.25	7.4%	\$13	\$101	2.4x	NM	NM	NM	NM	NM	33.6%	(30.9%)	(3.1%)	(68.5x)
Mean				\$13,027	\$16,847	3.1x	12.1x	24.3x	40.1x	33.5x	29.5x	36.8%	6.5%	21.7%	-8.6x
Median				\$10,335	\$13,105	3.0x	11.4x	25.0x	33.9x	30.8x	27.5x	37.5%	13.0%	27.3%	2.7x
High				\$34,442	\$43,488	5.0x	16.1x	31.5x	59.5x	50.0x	41.5x	41.3%	17.9%	31.1%	4.9x
Low				\$13	\$101	2.2x	10.5x	17.7x	26.8x	24.6x	22.6x	32.5%	-30.9%	-3.1%	-68.5x

Source: Capital IQ

Total Enterprise Value (TEV) = Market Capitalization + Preferred Equity + Debt + Minority Interest - Cash

LTM = Last Twelve Months

Special Waste:

(\$ in millions, except per share data)

Company	Share Price 09/30/2017	% of 52 Wk High	Market Capitalization	Enterprise Value	Valuation Multiples			PE Multiples			LTM Operating Margins			Net Debt/EBITDA	
					TEV/Total Revenue	TEV/EBITDA	TEV/EBIT	LTM P/E	CY17 P/E	CY18 P/E	Gross	EBIT	EBITDA		
Stericycle, Inc.	SRCL	\$71.62	81.4%	\$6,112	\$8,940	2.5x	11.5x	16.6x	NM	19.2x	18.5x	44.2%	15.0%	21.6%	3.6x
Clean Harbors, Inc.	CLH	\$56.70	92.0%	\$3,241	\$4,529	1.6x	10.9x	35.8x	NM	NM	NM	30.0%	4.4%	14.5%	3.1x
Darling Ingredients Inc.	DAR	\$17.52	93.9%	\$2,885	\$4,610	1.3x	9.4x	23.5x	34.4x	66.0x	21.9x	21.6%	3.9%	12.2%	3.8x
US Ecology, Inc.	ECOL	\$53.80	97.8%	\$1,174	\$1,449	3.0x	13.6x	22.2x	42.0x	31.5x	27.3x	30.0%	13.6%	22.3%	2.6x
Sharps Compliance Corp.	SMED	\$4.78	83.5%	\$77	\$74	1.9x	NM	NM	NM	NM	NM	31.0%	(1.3%)	2.6%	(2.1x)
Perma-Fix Environmental Services, Inc.	PESI	\$3.80	72.5%	\$45	\$49	0.9x	23.0x	NM	NM	NM	NM	19.9%	(5.0%)	4.1%	1.8x
Mean				\$2,255	\$3,275	1.9x	13.7x	24.5x	38.2x	38.9x	22.5x	29.4%	5.1%	12.9%	2.1x
Median				\$2,030	\$2,989	1.8x	11.5x	22.9x	38.2x	31.5x	21.9x	30.0%	4.1%	13.3%	2.8x
High				\$6,112	\$8,940	3.0x	23.0x	35.8x	42.0x	66.0x	27.3x	44.2%	15.0%	22.3%	3.8x
Low				\$45	\$49	0.9x	9.4x	16.6x	34.4x	19.2x	18.5x	19.9%	-5.0%	2.6%	(2.1x)

Source: Capital IQ

Total Enterprise Value (TEV) = Market Capitalization + Preferred Equity + Debt + Minority Interest - Cash

LTM = Last Twelve Months

Industrial Services:

(\$ in millions, except per share data)

Company	Share Price 09/30/2017	% of 52 Wk High	Market Capitalization	Enterprise Value	Valuation Multiples			PE Multiples			LTM Operating Margins			Net Debt/EBITDA	
					TEV/Total Revenue	TEV/EBITDA	TEV/EBIT	LTM P/E	CY17 P/E	CY18 P/E	Gross	EBIT	EBITDA		
Covanta Holding Corporation	CVA	\$14.85	90.0%	\$1,940	\$4,728	2.8x	15.9x	53.1x	NM	NM	NM	30.8%	5.2%	17.4%	9.4x
Heritage-Crystal Clean, Inc.	HKCI	\$21.75	99.1%	\$492	\$496	1.4x	12.0x	21.3x	28.4x	33.6x	29.1x	25.4%	6.7%	11.8%	(0.1x)
CECO Environmental Corp.	CECE	\$8.46	56.9%	\$293	\$386	1.0x	7.9x	11.9x	NM	19.1x	13.7x	33.6%	8.3%	12.7%	1.9x
Cypress Energy Partners, L.P.	CELP	\$7.72	54.1%	\$92	\$183	0.6x	11.4x	17.8x	21.5x	19.8x	18.5x	12.1%	3.4%	5.4%	7.2x
Ecology & Environment, Inc.	EEL	\$11.95	91.5%	\$51	\$41	0.4x	7.2x	8.9x	38.0x	NM	NM	44.6%	4.6%	5.6%	(2.1x)
Fuel Tech, Inc.	FTEK	\$1.02	67.5%	\$25	\$18	0.4x	NM	NM	NM	NM	NM	35.9%	(31.1%)	(24.0%)	0.7x
Quest Resource Holding Corporation	QRHC	\$1.16	38.8%	\$18	\$23	0.1x	NM	NM	NM	(15.7x)	NM	9.1%	(3.6%)	(1.2%)	(2.3x)
Industrial Services of America, Inc.	ISDA	\$1.67	49.9%	\$13	\$21	0.4x	25.7x	NM	NM	NM	NM	5.3%	(3.2%)	1.8%	9.2x
Mean				\$365	\$737	0.9x	13.3x	22.6x	29.3x	14.2x	20.4x	24.6%	-1.2%	-3.7%	3.0x
Median				\$72	\$112	0.5x	11.7x	17.8x	28.4x	19.5x	18.5x	28.1%	4.0%	5.5%	1.3x
High				\$1,940	\$4,728	2.8x	25.7x	53.1x	38.0x	33.6x	29.1x	44.6%	8.3%	17.4%	9.4x
Low				\$13	\$18	0.1x	7.2x	8.9x	21.5x	-15.7x	13.7x	5.3%	-31.1%	-24.0%	(2.3x)

Source: Capital IQ

Total Enterprise Value (TEV) = Market Capitalization + Preferred Equity + Debt + Minority Interest - Cash

LTM = Last Twelve Months





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Select Mergers and Acquisitions & Capital Raising News

❖ Canada Fibers Acquires HGC Management

September 5, 2017 – Toronto-based Canada Fibers Ltd. (CFL), a provider of material recovery and recycling services, is acquiring the issued and outstanding common shares of Ontario, Canada-based HGC Management Inc. This acquisition, which is expected to close within 60 days, will expand CFL's operations in Ontario. In addition to acquiring the issued and outstanding common shares of HGC, CFL will take over HGC's seven material recovery facilities (MRFs) within the Province of Ontario and its fleet of 75 trucks.

❖ National Waste Partners Acquires Assets from DWS

September 6, 2017 – National Waste Partners announced it has acquired Environmental Equipment Services, an equipment service company, and National Compactor Rental, a compactor and baler rental company, from DWS, Inc. National Waste Partners, through its various subsidiaries, provides compactor and baler rentals, repair, and waste coordination services to over 500 customers across 37 states. Scott Lange, general manager of environmental equipment services with DWS, will be joining National Waste Partners within the sales organization. As a 25-year veteran of the waste arena, Lange brings knowledge, experience, and strategic relationships to National Waste's sales organization that will contribute to its development and ongoing success.

❖ Enevo Receives \$12M in Funding for Expansion into Waste, Recycling Services

September 28, 2017 – Enevo has announced its expansion into waste and recycling services. Building upon its dumpster sensor technology and waste analytics business, Enevo now offers full management of waste services for both new and current restaurant, retail and commercial property customers. Enevo received \$12M in its latest funding round, led by Lifeline Ventures and existing international investors, accelerating the introduction of waste services in North America and key European regions earlier this year. Using proprietary analytics software, Enevo account managers monitor around-the-clock sensor data to manage alerts, compare dumpster pickups against collection schedules and work with haulers to adjust service levels to meet needs. In onboarding new customers, Enevo found that about nine percent of scheduled waste collections are missed without their knowledge, and 21 percent of sites need service levels adjusted. Within the first 90 days of working with Enevo, these numbers improve.

Select Industry News

❖ Green Business Certification Launches TRUE Zero Waste Rating System

September 8, 2017 – Green Business Certification Inc. (GBCI), the premier organization independently recognizing excellence in green business industry performance and practice globally, has launched TRUE (Total Resource Use and Efficiency), the new brand identity for its zero waste rating system that will help businesses and facilities define, pursue and achieve their zero waste goals through project certification and professional credentialing. TRUE is a whole systems approach that helps organizations understand how materials flow through their facilities and identify redesign opportunities so that all products are reused. TRUE-certified projects meet a minimum of 90 percent waste diversion for 12 months from landfills, incinerators (waste-to-energy) or the environment. TRUE is administered by GBCI and serves as a compliment to the Leadership in Energy and Environmental Design green building rating system created by the U.S. Green Building Council (USGBC). Currently, there are 88 TRUE-certified facilities located around the globe. TRUE focuses on helping businesses, industrial sectors and schools quantify their performance and find additional ways to move toward zero waste. Microsoft, Tesla, Sierra Nevada Brewing Co., Nature's Path, Earth Friendly Products, Raytheon, Cintas and Northrop Grumman are some of the companies that have facilities certified under the program. The TRUE Zero Waste certification, previously administered by the U.S. Zero Waste Business Council, was acquired by GBCI in 2016.

❖ NWRA Becomes Latest Group to Submit Comments to WTO on China's Proposed Scrap Ban

September 11, 2017 – The National Waste & Recycling Association (NWRA) has presented comments to the World Trade Organization (WTO) in response to China's July 18 filing, signaling its intent to forbid 24 kinds of solid wastes by the end of 2017. In its statement, the NWRA wrote, "This ban will significantly impact the recycling industry in the United States as well as on the Chinese manufacturing that relies on these recycled materials. We respectfully request that the Chinese government reconsider this ban. Further, we support high quality standards for recyclable materials and support policies to achieve them. Ultimately, we believe that by using high quality standards, China ensures that its manufacturing sector has the raw materials needed to continue to produce goods while ensuring that the recycling industry remains viable into the future." NWRA noted its particular concern with the categories of "Plastic waste from living sources" and "Unsorted waste paper." In its comments, the NWRA noted, "These materials represent the residential and commercial recycling sector which our members support. A significant amount of these materials are exported, mainly to China. In 2016, approximately 41 percent of paper recovered in North America was exported, with about a quarter of recyclable paper collected in the United States exported to Chinese mills. Similarly, over 20 percent of post-consumer bottles and 33 percent of non-bottle rigid plastics from the U.S. were exported in 2015." By issuing the comments, the NWRA joined the Institute of Scrap Recycling Industries, which has issued several responses, and the Solid Waste Association of North America (SWANA), which has issued its own response.



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❖ Walmart Underpaid California More than \$7.2M in Deposits

September 13, 2017 – Walmart, one of the largest global retailers, recently paid off the more than \$7.2 million it owed to the State of California for the underreported number of containers it distributed over a three-year period. The underreported number of containers was discovered during an audit that CalRecycle conducted last year. In total, the company failed to report 129.9 million California Refund Value-covered beverage containers, which totaled \$7.2 million. In addition, Walmart didn't pay processing fees, which totaled about \$8,500.

❖ Republic Services Returns to Dow Jones Sustainability World and North America Indices

September 13, 2017 – Republic Services was named to both the 2017 DJSI World and North America indices for the second consecutive year. Republic is the only recycling and solid waste collection provider included in the 2017 DJSI Indices. Republic received a top score in the risk & crisis management, materiality (stakeholder engagement), human capital development and talent attraction & retention categories—all factors that enhance the Company's ability to deliver value over the long term. Republic's performance demonstrates the breadth of its sustainability efforts and, importantly, the actions that lead to strong financial performance and competitiveness, which is the guiding principle of the DJSI assessment. Through its Blue Planet sustainability platform, Republic is defining its approach to and steadily building on corporate social responsibility through the practices and programs.

❖ FCC Group Names New CEO

September 13, 2017 – Carlos Jarque has stepped down as CEO of FCC Group and the board of directors has unanimously decided to name Pablo Colio as his replacement. Jarque said that he had achieved his goals and that, for personal reasons, he wished to return to Mexico to be closer to his family. Colio will combine the new position of CEO with his previous role as general manager of FCC Construcción. Within FCC Group, Colio also served as the general manager of FCC Industrial. He was responsible for its international expansion and the unification of all industrial companies of FCC Group under the brand FCC Industrial. FCC has been aggressively building its U.S. presence in the past few years. In terms of its solid waste business lines, FCC was awarded a \$32.5 million contract to collect and treat waste from the city of Rowlett, Texas, for a period of seven years, with the possibility of a three year extension. The contract includes managing the city's residential and commercial waste and will provide about 5,000 tons of waste per year for the group's recycling plant in Dallas, which was inaugurated this year. Including the contracts obtained in the cities of Garland and Mesquite in the first quarter, FCC's Environment division added over \$300 million to its backlog in the U.S. in the first half of 2017.

❖ Truckload Turnover Rate Surges in Second Quarter

September 20, 2017 – The turnover rate at truckload carriers surged in the second quarter of the year, a sign that the market for drivers is quickly tightening, according to American Trucking Assns. Chief Economist Bob Costello. According to ATA's quarterly report, the turnover rate at large truckload carriers jumped 16 percentage points to 90% – the highest it has been since the final quarter of 2015. The 16-point increase is the largest quarterly jump since the fourth quarter of 2010. At smaller carriers, fleets with less than \$30 million in annual revenue, the turnover rate swelled by 19 percentage points to 85%, the highest it has been since the first quarter of 2016. The turnover picture at less-than-truckload fleets was more muddled, with over-the-road LTL turnover dipping one point to 9%, but the rate for local LTL drivers was 14%, up two percentage points from the previous quarter and the highest rate in three years.

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Sources include Waste360, Waste Dive and various publicly available news publications. Additional information is available upon request.

