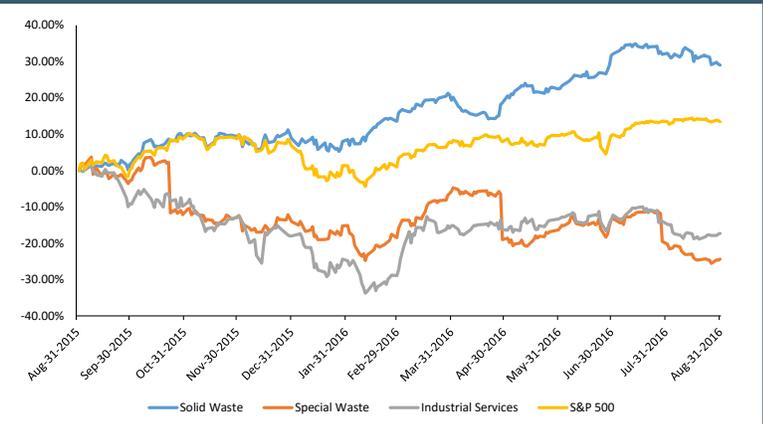
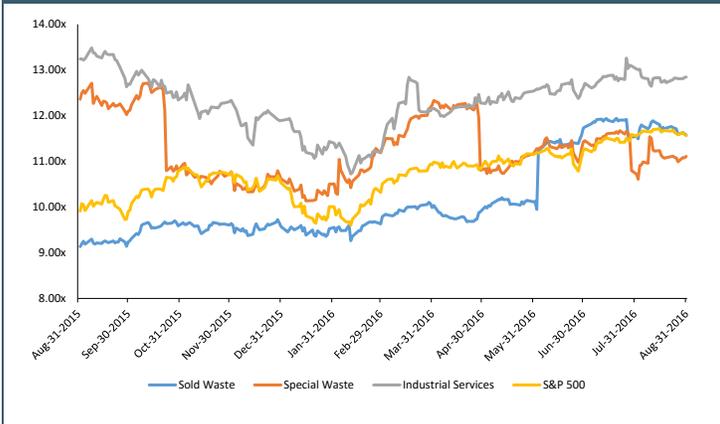


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Environmental Services LTM TEV/EBITDA

Environmental Services LTM Share Price (Shown as % change)



Indices Performance (% change)

	<u>August 2016</u>	<u>LTM</u>		<u>August 2016</u>	<u>LTM</u>
S&P 500	0.0%	10.1%	Solid Waste	(1.6%)	29.0%
Dow Jones	0.0%	11.3%	Special Waste	(5.1%)	(24.4%)
NASDAQ	0.6%	9.1%	Industrial Services	(2.3%)	(17.3%)

(Source: CapitalIQ)

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

CECO Environmental Corp.	20.9%	Cypress Energy Partners, L.P.	(22.8%)
Perma-Fix Environmental Services Inc.	20.8%	Fuel-Tech, Inc.	(14.2%)
Heritage-Crystal Clean, Inc.	10.1%	Sharps Compliance Corp.	(13.1%)
Industrial Services of America, Inc.	4.3%	Quest Resource Holding Corporation	(12.5%)
US Ecology, Inc.	0.3%	Darling Ingredients Inc.	(9.0%)

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Select Public Trading Statistics (as of 8/31/2016)

Solid Waste:

(\$ in millions, except per share data)

Company	Share Price 08/31/2016	% of 52 Wk High	Market Capitalization	Enterprise Value	Valuation Multiples			PE Multiples			Operating Margins			Net Debt/EBITDA	
					TEV/Total Revenue	TEV/EBITDA	TEV/EBIT	LTM P/E	CY15 P/E	CY16 P/E	Gross	EBIT	EBITDA		
Waste Management, Inc.	WM	\$63.94	90.7%	\$28,280	\$37,791	2.9x	10.6x	17.2x	25.0x	22.1x	24.4x	37.6%	16.9%	27.2%	2.6x
Republic Services, Inc.	RSG	\$50.52	95.5%	\$17,321	\$24,914	2.7x	9.7x	16.5x	24.3x	23.1x	25.1x	38.6%	16.4%	27.9%	2.9x
Waste Connections, Inc.	WCN	\$76.43	95.9%	\$13,378	\$17,124	7.4x	22.9x	38.8x	42.2x	NM	34.3x	43.9%	19.0%	32.2%	5.0x
Castella Waste Systems Inc.	CWST	\$9.09	95.0%	\$377	\$878	1.6x	8.8x	23.7x	NM	(43.6x)	NM	31.4%	6.7%	18.0%	5.0x
Mean				\$14,839	\$20,177	3.6x	13.0x	24.0x	30.5x	0.6x	28.0x	37.9%	14.7%	26.3%	3.9x
Median				\$15,349	\$21,019	2.8x	10.2x	20.5x	25.0x	22.1x	25.1x	38.1%	16.7%	27.5%	4.0x
High				\$28,280	\$37,791	7.4x	22.9x	38.8x	42.2x	23.1x	34.3x	43.9%	19.0%	32.2%	5.0x
Low				\$377	\$878	1.6x	8.8x	16.5x	24.3x	-43.6x	24.4x	31.4%	6.7%	18.0%	2.6x

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 08/31/2016	% 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	CY15 P/E	CY16 P/E	Gross	EBIT	EBITDA		
Stericycle, Inc.	SRCL	\$85.98	56.7%	\$7,278	\$10,363	3.1x	14.4x	20.1x	30.3x	31.5x	20.0x	44.8%	15.3%	21.3%	4.3x
Clean Harbors, Inc.	CLH	\$47.80	87.6%	\$2,748	\$4,027	1.4x	9.3x	26.7x	115.6x	36.2x	110.7x	28.5%	5.1%	14.7%	3.0x
Darling Ingredients Inc.	DAR	\$14.80	88.4%	\$2,317	\$4,167	1.3x	7.9x	17.0x	21.4x	NM	32.3x	22.4%	4.7%	13.1%	4.0x
US Ecology, Inc.	ECOL	\$44.86	88.9%	\$977	\$1,259	2.4x	10.6x	16.0x	28.6x	26.1x	26.2x	31.1%	15.1%	22.8%	2.4x
Sharps Compliance Corp.	SMED	\$4.57	43.6%	\$73	\$60	1.8x	59.0x	293.8x	NM	NM	127.0x	33.3%	0.6%	3.1%	(12.2x)
Perma-Fix Environmental Services Inc.	PESI	\$5.46	96.8%	\$64	\$75	1.3x	42.2x	NM	NM	NM	NM	19.7%	(3.3%)	3.1%	5.9x
Mean				\$2,243	\$3,325	1.9x	23.9x	74.7x	48.9x	31.3x	63.2x	29.9%	6.2%	13.0%	1.2x
Median				\$1,647	\$2,643	1.6x	12.5x	20.1x	29.4x	31.5x	32.3x	29.8%	4.9%	13.9%	3.5x
High				\$7,278	\$10,363	3.1x	59.0x	293.8x	115.6x	36.2x	127.0x	44.8%	15.3%	22.8%	5.9x
Low				\$64	\$60	1.3x	7.9x	16.0x	21.4x	26.1x	20.0x	19.7%	-3.3%	3.1%	(12.2x)

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 08/31/2016	% 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	CY15 P/E	CY16 P/E	Gross	EBIT	EBITDA		
Covanta Holding Corporation	CVA	\$14.89	75.9%	\$1,934	\$4,514	2.7x	12.8x	29.9x	43.2x	NM	NM	31.2%	8.4%	20.5%	7.5x
CECO Environmental Corp.	CECE	\$10.99	93.5%	\$375	\$487	1.2x	9.4x	15.4x	NM	13.3x	15.0x	30.7%	7.6%	12.4%	2.1x
Heritage-Crystal Clean, Inc.	HCCI	\$13.81	97.3%	\$309	\$353	1.0x	15.0x	52.1x	NM	33.2x	42.3x	20.3%	2.0%	6.9%	1.8x
Cypress Energy Partners, L.P.	CELP	\$9.16	65.5%	\$109	\$199	0.6x	13.0x	21.5x	NM	15.9x	23.2x	11.7%	2.8%	4.6%	7.3x
Ecology & Environment, Inc.	EHI	\$9.89	82.5%	\$42	\$36	0.3x	5.5x	6.6x	33.6x	NM	NM	44.4%	4.7%	5.7%	(1.3x)
Fuel-Tech, Inc.	FTFK	\$1.39	54.7%	\$33	\$20	0.3x	NM	NM	NM	NM	NM	36.2%	(9.7%)	(4.4%)	3.9x
Quest Resource Holding Corporation	QRHC	\$2.10	28.7%	\$31	\$34	0.2x	NM	NM	NM	NM	NM	7.8%	(4.4%)	(2.1%)	(0.6x)
Industrial Services of America, Inc.	ISIA	\$1.70	45.3%	\$14	\$19	0.6x	NM	NM	NM	NM	NM	(4.2%)	(17.4%)	(10.3%)	(1.7x)
Mean				\$356	\$708	0.9x	11.1x	25.1x	38.4x	20.8x	26.8x	22.3%	-0.7%	4.2%	2.4x
Median				\$75	\$118	0.6x	12.8x	21.5x	38.4x	15.9x	23.2x	25.5%	2.4%	5.2%	1.9x
High				\$1,934	\$4,514	2.7x	15.0x	52.1x	43.2x	33.2x	42.3x	44.4%	8.4%	20.5%	7.5x
Low				\$14	\$19	0.2x	5.5x	6.6x	33.6x	13.3x	15.0x	-4.2%	-17.4%	-10.3%	(1.7x)

Source: Capital IQ

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

LTM = Last Twelve Months





Trash Talk

An Environmental Services
Newsletter

Select Mergers and Acquisitions & Capital Raising News

❖ Canadian Pension Fund invests \$280M in Advanced Disposal

August 5, 2016 – Advanced Disposal Services, announced that Canada Pension Plan Investment Board (CPPIB) has completed a \$280 million investment in Series B Preferred Units of Star Atlantic Waste Holdings II L.P., which is an investment partnership sponsored by Highstar Capital and the principal owner of Advanced Disposal Services. Proceeds were used to redeem an investor's Series A partnership investment and all remaining Series A Preferred Units were converted into Series B Preferred Units, which will result in lower preferred stock accrual expenses.

The move could pave the way for Advanced Disposal to move ahead with the IPO it had postponed earlier this year. Advanced Disposal had previously announced its intentions to conduct an IPO last year. In February it was prepping to move ahead with the IPO, aiming to raise as much as \$470 million, when it abruptly was forced to postpone those plans citing what it called, “unfavorable equity market conditions.” Advanced Disposal has the financial backing of private equity firm Highstar Capital. Highstar was purchased by Oaktree Capital Group in June 2014 and that transaction included some conditions that may have contributed to the current transaction. In this transaction, CPPIB's investment will automatically be converted into common stock if Advanced Disposal Services Inc. completes a qualified initial public offering.

Select Industry News

❖ PTR Baler & Compactor Opens New Manufacturing Facility in Plant City, Florida

August 5, 2016 – PTR Baler & Compactor unveiled a new facility in Plant City, Florida, that will help the company expand further into the region. The Philadelphia-based firm said it has been on a quest to grow its reach in the Southeast. The new facility will help it achieve those goals. The company manufactures balers and compactors and other industry equipment. The new facility includes a large lot of land to allow for additional expansion options as needed. The 10,000-sq.-ft. facility begins operations immediately. By increasing its manufacturing capacity, PTR expects to meet growing demand for its products, installations, emergency repair service and parts. The new facility has created jobs for welders, painters, installers and technicians.

❖ Solid Waste Industry Continues Strong Run in Second Quarter

August 10, 2016 – The major solid waste companies reported second quarter results. Across the board, pricing was generally better than expected, as it remained consistent with very strong first quarter levels. Waste Management (WM) and Republic Services (RSG) reported yield of 2.6 percent and 2 percent, respectively, consistent with the first quarter. Casella Waste (CWST) reported solid waste pricing of 2.6 percent, within which residential and commercial collection pricing rose 5.3 percent. In a number of cases, the differential between core price and yield shrank, reflecting that more of the pricing “put out on the street” was retained and now falling to the bottom line.

❖ Waste Haulers Seek Employees to Fill Ample Amount of Driver Positions

August 12, 2016 – The waste industry has been faced with a national truck driver shortage for a long time now and that problem isn't expected to improve in the near future. To help fill these open positions, the waste industry is trying to spread the message that although the industry isn't glamorous, it is good work. Currently, waste industry leaders are stepping up to come up with creative ways to recruit drivers. The National Waste and Recycling Association, for example, is trying to find new ways to hire veterans and the Women in Trucking Association (WIT) is targeting Girl Scouts to help young girls learn about the important of freight hauling. WIT is even in talks with Walmart about possibility creating a truck driver Barbie. The American Trucking Association (ATA) said this shortage has more than doubled since 2011. Their latest annual report said the U.S. was short approximately 48,000 drivers in 2015 and estimated that the number will likely be much higher this year.

❖ Los Angeles Truck Driver Arrested for Transporting 7,000 Lbs. of Out-of-State Recyclables

August 12, 2016 – Julio Bolanos, a 40-year-old truck driver in Los Angeles, is being accused of attempting to defraud the California recycling system after he was caught transporting 7,000 lbs. of bottles and cans from Arizona to California for an estimated \$11,000 California Redemption Value. The California Department of Justice Recycling Fraud Team caught onto Bolanos when he filled up his semi-truck with beverage containers in Phoenix and drove 70-miles out of the way to avoid the border control checkpoint at Blythe, California.

❖ Virginia Waste Company Threatens to Suspend Services If City Does Not Pay Up

August 18, 2016 – The City of Petersburg, Virginia, has not paid its waste and recycling provider, Central Virginia Waste Management Authority (CVWMA), for its services since May. Currently, the city owes the provider \$632,000. CVWMA is now threatening to suspend its services if the city does not commit to a payment plan for its outstanding debt and future payments. Petersburg residents have been paying monthly fees to the city, but the city has not been remitting those fees to CVWMA.



Trash Talk

An Environmental Services
Newsletter

❖ **Apple's 14 Final Assembly Plants in China Have Achieved Zero Waste**

August 18, 2016 – Apple has revealed that its 14 final assembly plants in China have achieved zero waste. In addition to that announcement, Apple has also stated that its China glass supplier, Lens Technology, has committed to run Apple's operations on 100 percent renewable energy by 2018.

❖ **Judge Dismisses Waste Management Anti-Trust Lawsuit**

August 22, 2016 – A judge dismissed a lawsuit against Waste Management alleging that it had conspired with another waste hauler to monopolize the Reno waste market. The case claimed that Waste Management misled the city of Reno into approving a franchise agreement, which squeezed out local firm Nevada Recycling & Salvage and Rubbish Runners.

❖ **Kansas City Apologizes to Residents Over Trash Collection Woes**

August 25, 2016 – The Kansas City municipal government has apologized for serious delays in trash collection that have plagued the city this summer. The city's two main haulers, Deffenbaugh and Town and Country, have struggled with a shortage of drivers in the market, which has made collection difficult. WCA acquired Town & Country last October and shortly after that began to experience a serious driver shortage that has contributed to significant trash and recycling collection delays. There's been a long-term driver shortage in the U.S. and it's definitely posed a challenge to the waste and recycling industry, along with other sectors.

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