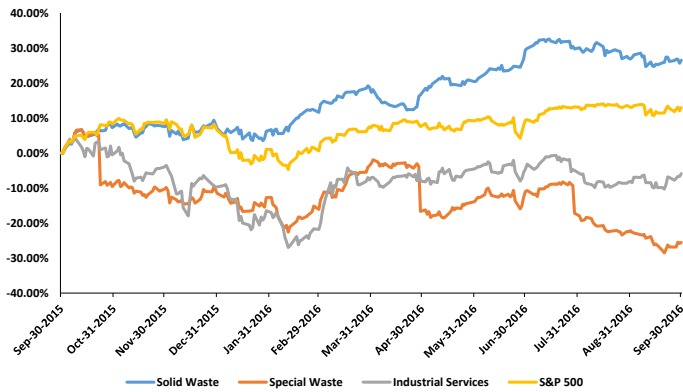


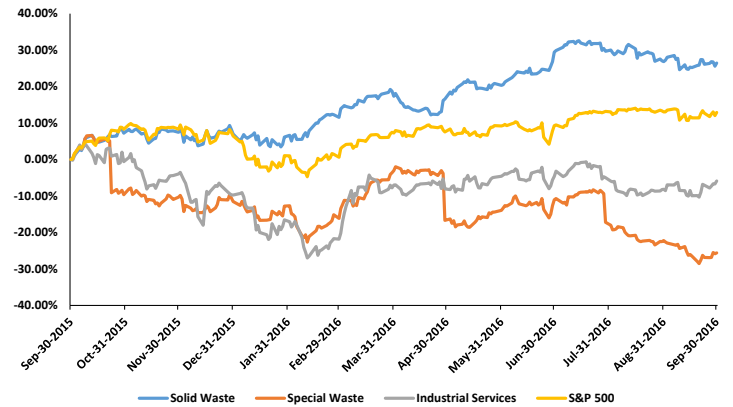
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An Environmental Services
Newsletter

Environmental Services LTM TEV/EBITDA



Environmental Services LTM Share Price (Shown as % change)



Indices Performance (% change)

	<u>September 2016</u>	<u>LTM</u>		<u>September 2016</u>	<u>LTM</u>
S&P 500	(0.1%)	12.9%	Solid Waste	(1.2%)	26.5%
Dow Jones	(0.6%)	12.4%	Special Waste	(3.9%)	(25.6%)
NASDAQ	1.6%	15.0%	Industrial Services	2.9%	(5.9%)

(Source: CapitalIQ)

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

Casella Waste Systems Inc.	14.3%	Perma-Fix Environmental Services Inc.	(8.5%)
Cypress Energy Partners, L.P.	9.5%	Quest Resource Holding Corporation	(7.8%)
Covanta Holding Corporation	3.7%	Stericycle, Inc.	(6.1%)
CECO Environmental Corp.	1.4%	Industrial Services of America, Inc.	(4.2%)
Clean Harbors, Inc.	0.9%	Sharps Compliance Corp.	(4.0%)

Environmental Services Industry Contacts

Tom Denison
(312) 283-0819
thomas.denison@thechicagocorp.com

Phil Clarke
(312) 283-0803
philip.clarke@thechicagocorp.com



Trash Talk

An Environmental Services
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Select Public Trading Statistics (as of 9/30/2016)

Solid Waste:

(\$ in millions, except per share data)

Company	Share Price 09/30/2016	% 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	\$63.76	90.4%	\$28,200	\$37,711	2.9x	10.6x	17.1x	24.9x	22.1x	24.4x	37.6%	16.9%	27.2%	2.6x
Republic Services, Inc.	RSG	\$50.45	95.3%	\$17,297	\$24,890	2.7x	9.7x	16.5x	24.2x	23.1x	25.0x	38.6%	16.4%	27.9%	2.9x
Waste Connections, Inc.	WCN	\$74.70	93.7%	\$13,103	\$16,849	7.3x	22.6x	38.2x	41.2x	NM	34.4x	43.9%	19.0%	32.2%	5.0x
Casella Waste Systems Inc.	CWST	\$10.30	99.1%	\$427	\$928	1.7x	9.3x	25.1x	NM	(43.6x)	NM	31.4%	6.7%	18.0%	5.0x
Mean				\$14,757	\$20,095	3.6x	13.0x	24.2x	30.1x	0.6x	27.9x	37.9%	14.7%	26.3%	3.9x
Median				\$15,200	\$20,870	2.8x	10.1x	21.1x	24.9x	22.1x	25.0x	38.1%	16.7%	27.5%	4.0x
High				\$28,200	\$37,711	7.3x	22.6x	38.2x	41.2x	23.1x	34.4x	43.9%	19.0%	32.2%	5.0x
Low				\$427	\$928	1.7x	9.3x	16.5x	24.2x	-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 09/30/2016	% 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	\$80.14	52.9%	\$6,784	\$9,869	2.9x	13.7x	19.2x	28.2x	31.5x	20.0x	44.8%	15.3%	21.3%	4.3x
Clean Harbors, Inc.	CLH	\$47.98	88.0%	\$2,759	\$4,038	1.4x	9.4x	26.7x	116.0x	36.2x	105.4x	28.5%	5.1%	14.7%	3.0x
Darling Ingredients Inc.	DAR	\$13.51	84.8%	\$2,224	\$4,073	1.2x	7.8x	16.6x	20.5x	NM	32.3x	22.4%	4.7%	13.1%	4.0x
US Ecology, Inc.	ECOL	\$44.84	90.8%	\$976	\$1,259	2.4x	10.6x	16.0x	28.6x	26.1x	26.0x	31.1%	15.1%	22.8%	2.4x
Sharps Compliance Corp.	SMED	\$4.38	41.8%	\$70	\$57	1.7x	56.0x	279.1x	NM	NM	127.0x	33.3%	0.6%	3.1%	(12.2x)
Perma-Fix Environmental Services Inc.	PESI	\$5.01	88.8%	\$58	\$70	1.2x	39.2x	NM	NM	NM	NM	19.7%	(3.3%)	3.1%	5.9x
Mean				\$2,145	\$3,227	1.8x	22.8x	71.5x	48.3x	31.3x	62.1x	29.9%	6.2%	13.0%	1.2x
Median				\$1,600	\$2,648	1.5x	12.2x	19.2x	28.4x	31.5x	32.3x	29.8%	4.9%	13.9%	3.5x
High				\$6,784	\$9,869	2.9x	56.0x	279.1x	116.0x	36.2x	127.0x	44.8%	15.3%	22.8%	5.9x
Low				\$58	\$57	1.2x	7.8x	16.0x	20.5x	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 09/30/2016	% 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	\$15.39	83.8%	\$1,999	\$4,579	2.7x	12.9x	30.3x	44.6x	NM	NM	31.2%	8.4%	20.5%	7.5x
CECO Environmental Corp.	CECE	\$11.28	96.0%	\$385	\$497	1.2x	9.6x	15.7x	NM	13.3x	15.0x	30.7%	7.6%	12.4%	2.1x
Heritage-Crystal Clean, Inc.	HCCI	\$13.28	93.5%	\$298	\$341	1.0x	14.5x	50.3x	NM	33.2x	42.3x	20.3%	2.0%	6.9%	1.8x
Cypress Energy Partners, L.P.	CELP	\$9.78	75.3%	\$116	\$206	0.6x	13.5x	22.3x	NM	15.9x	26.2x	11.7%	2.8%	4.6%	7.3x
Ecology & Environment, Inc.	EHI	\$9.89	85.8%	\$42	\$36	0.3x	5.5x	6.6x	33.6x	NM	NM	44.4%	4.7%	5.7%	(1.3x)
Fuel-Tech, Inc.	FTFK	\$1.40	55.1%	\$33	\$20	0.3x	NM	NM	NM	NM	NM	36.2%	(9.7%)	(4.4%)	3.9x
Quest Resource Holding Corporation	QRHC	\$2.02	27.6%	\$30	\$32	0.2x	NM	NM	NM	NM	NM	7.8%	(4.4%)	(2.1%)	(0.6x)
Industrial Services of America, Inc.	ISIA	\$1.59	45.2%	\$13	\$18	0.6x	NM	NM	NM	NM	NM	(4.2%)	(17.4%)	(10.3%)	(1.7x)
Mean				\$364	\$716	0.9x	11.2x	25.1x	39.1x	20.8x	27.8x	22.3%	-0.7%	4.2%	2.4x
Median				\$79	\$121	0.6x	12.9x	22.3x	39.1x	15.9x	26.2x	25.5%	2.4%	5.2%	1.9x
High				\$1,999	\$4,579	2.7x	14.5x	50.3x	44.6x	33.2x	42.3x	44.4%	8.4%	20.5%	7.5x
Low				\$13	\$18	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

❖ Action Environmental Group Acquires J.F. Morena Company, Inc.

September 1, 2016 – The Action Environmental Group, provider of non-hazardous waste management and recycling services for New York City, Northern New Jersey, Rockland and Orange County, New York; today announced the completion of its acquisition of J.F. Morena Co. Inc., a Hudson County, New Jersey-based waste management company. With this transaction, The Action Environmental Group, through its subsidiary Interstate Waste Services, has acquired operations and assets of the Jersey City, New Jersey company. The acquired business assets include commercial waste and recycling collection, equipment and vehicles.

❖ Rubicon Global Partners with The Credit Junction for New Flexible Financing Program

September 8, 2016 – Atlanta-based Rubicon Global has partnered with The Credit Junction to provide its network of more than 5,000 haulers with flexible financing, including access to term loans or lines of credit from \$500,000 to \$5 million through The Credit Junction. The new financing program includes monthly interest-only payments, which are designed to increase the capital available as the hauler's business and assets grow.

❖ Advanced Disposal Buys West Mobile Sanitation

September 15, 2016 – Advanced Disposal has acquired Mobile, Alabama-based West Mobile Sanitation for an undisclosed amount. With this transaction, Advanced Disposal has acquired West Mobile's residential garbage customers, who will be serviced by Advanced Disposal's existing Mobile facility. The city's garbage pickup schedule will switch to Tuesdays and Fridays to help improve services.

❖ Waste Management Acquires Pioneer Industries of Wisconsin

September 19, 2016 – Houston-based Waste Management Inc. has acquired the recycling assets of collection and processing services provider Pioneer Industries of Wisconsin. With this acquisition, Waste Management will be able to expand its Wisconsin operations and enhance its high-volume recycling services businesses.

❖ Advanced Disposal Commences \$375M IPO

September 26, 2016 – Advanced Disposal is moving ahead with its postponed initial public offering aiming to raise \$375 million with the sale of 19.25 million shares of common stock. The Ponte Vedra, Florida-based hauler had originally planned to go public in February, but, like a handful of other firms with similar plans, it was forced to postpone the IPO at a time when equities markets were roiled.

All of the shares are being offered by the company. The company's common stock has been approved for listing on The New York Stock Exchange under the ticker symbol ADSW. The underwriters have the option to purchase up to an additional 2,887,500 shares of common stock. The company expects the shares to be priced between \$18 and \$21 per share, according to a company filing. At the high end, the IPO would be worth \$404 million. The IPO pegs the overall value at the company at about \$1.8 billion. Advanced Disposal intends to use the net proceeds from the shares offered to repay outstanding borrowings under the Term Loan B portion of its senior secured credit facilities.

The offering comes less than two months after Canada Pension Plan Investment Board (CPPIB) 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. CPPIB's investment will automatically be converted into common stock if Advanced Disposal Services Inc. completes its IPO. Proceeds of that sale 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. Advanced Disposal has the financial backing of private equity firm Highstar Capital.

Select Industry News

❖ Republic Services Sues Flint, Michigan, Over FOIA Request

September 1, 2016 – Republic Services, Flint, Michigan's current trash provider, has been battling a variety of issues with the city lately. Last month, the city decided to end its contract with Republic, but then it quickly changed its mind and allowed Republic to restore its services for an extended period of time. Republic has filed a complaint against the city for allegedly failing to respond to its Freedom of Information Act request for "disclosure of all documents, emails, correspondence, evaluations, notes and tabulations involved" in the city's trash contract bids.



Trash Talk

An Environmental Services
Newsletter

❖ SEC Files Charges Against Donald Watkins for WTE Projects Fraud

September 15, 2016 – The U.S. Securities and Exchange Commission (SEC) filed charges against Donald Watkins and his companies, Watkins Pencor and Masada Resource Group, for fraud. Watkins supposedly lied to investors by telling them that their funds would be used to help develop waste-to-energy (WTE) projects and that Waste Management was considering his companies in a multibillion-dollar transaction. Instead of using the money for the WTE projects, Watkins spent the funds on his girlfriend and personal expenses, such as alimony, late taxes and credit card bills.

❖ Covanta Sues Hennepin County, Minnesota, Over Multimillion-Dollar Contract Sabotage

September 19, 2016 – Covanta, a company that has run and managed the Hennepin Energy Recover Center for 27 years, is suing Hennepin County, Minnesota, for possibly sabotaging negotiations for a new multimillion-dollar contract. The suit is asking for damages in excess of \$75,000. This federal lawsuit was filed after the county accepted a proposal agreement from Great River Energy last month. After accepting the proposal, the county told Covanta that it had until September 22, 2016, to agree to the contract terms or Great River would get the 16-month, \$25.5 million contract, which would begin in 2018.

❖ Lafayette County Mississippi to Spend \$1 Million on Garbage Trucks and Bins

September 21, 2016 – The Board of Supervisors for Lafayette County, Mississippi, has made the decision to roll out the new garbage bins that will be used with the new garbage trucks, which will hit the streets in approximately six months. The county will purchase about 10,500 new bins at a price tag of approximately \$500,000, and each household will receive one container that will be equipped with a chip device registered to that home.

❖ Waste Crime Costs England More than \$1.3B Per Year

September 23, 2016 – In England, illegal waste activity costs the country approximately \$1.3 billion per year. Last year alone, the country discovered more than 1,000 illegal waste sites, 662 of which were still active at the end of March. Some of these crimes include a Leeds waste criminal who received a seven-and-a-half year sentence for scamming the electrical waste recycling industry out of 20,000 tonnes of waste and a Sussex man who illegally stockpiled more than 1,200 tonnes of waste.

❖ Waste Management Drivers in Redding, California, Ratify First Contract

September 27, 2016 – Twenty-two Waste Management Inc., drivers and Teamsters Local 137 members in Redding, California, have voted unanimously to ratify their first contract. The four-year contract will allow the workers to enter the Western Conference of Teamsters Pension Plan and obtain affordable Teamsters healthcare. In addition to those benefits, the contract includes wage increases over the duration of the contract and job protection.

❖ France Sets 2020 Deadline for Banning of Plastic Cutlery

September 28, 2016 – In an effort to reduce plastic waste, France has set a 2020 deadline for banning plastic cutlery that isn't made of biodegradable material. In addition to that effort, the country banned single use plastic bags earlier this year, which is becoming a norm for many cities, states and countries. Plastic forks, spoons, and knives are big business for restaurants around the world, but in keeping up with its commitment to reduce its impact on the environment, France sees the ban as a vital and simple step.

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

