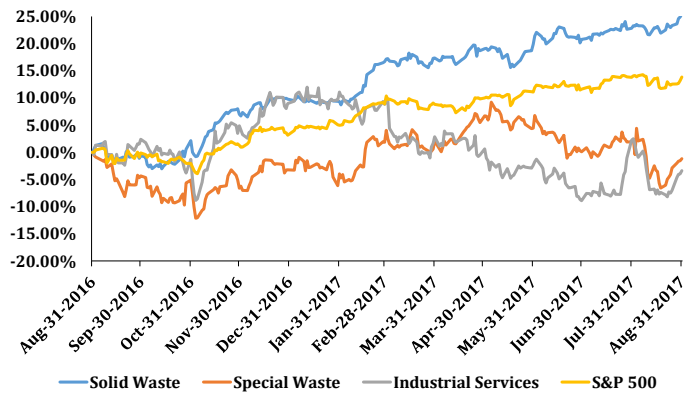
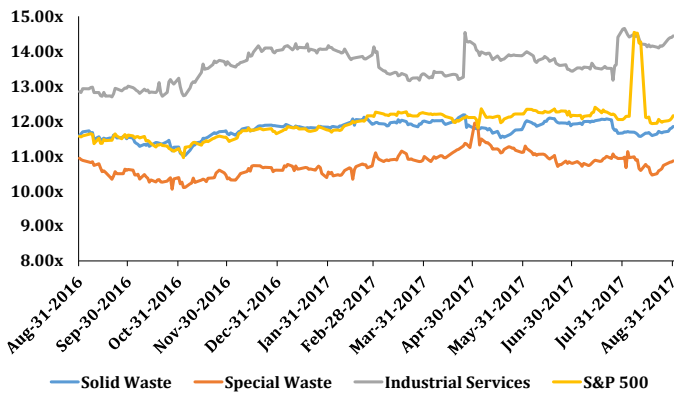


Trash Talk

An Environmental Services Newsletter

Environmental Services LTM TEV/EBITDA

Environmental Services LTM Share Price (Shown as % change)



Indices Performance (% change)

	<u>August 2017</u>	<u>LTM</u>		<u>August 2017</u>	<u>LTM</u>
S&P 500	(0.2%)	13.9%	Solid Waste	2.2%	25.5%
Dow Jones	(0.2%)	19.3%	Special Waste	(3.1%)	(1.2%)
NASDAQ	1.0%	23.3%	Industrial Services	(5.5%)	(3.4%)

(Source: CapitalIQ)

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

Industrial Services of America, Inc.	28.3%	CECO Environmental Corp.	(22.7%)
Darling Ingredients Inc.	7.0%	Quest Resource Holding Corporation	(20.7%)
Sharps Compliance Corp.	5.5%	Meridian Waste Solutions, Inc.	(17.2%)
Fuel Tech Inc.	5.0%	Stericycle, Inc.	(6.7%)
Heritage-Crystal Clean, Inc.	3.7%	Covanta Holding Corporation	(5.0%)

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Select Public Trading Statistics (as of 8/31/2017)

Solid Waste:

(\$ in millions, except per share data)

Company	Share Price 08/31/2017	% 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	\$77.11	99.9%	\$33,031	\$42,977	3.0x	11.3x	17.5x	26.4x	24.4x	22.2x	37.6%	17.9%	27.3%	2.3x
Republic Services, Inc.	RSG	\$65.24	99.5%	\$21,070	\$29,718	3.1x	11.0x	18.3x	33.5x	27.9x	25.0x	38.4%	16.9%	28.0%	2.8x
Waste Connections, Inc.	WCN	\$66.69	99.3%	\$17,582	\$21,199	4.8x	15.5x	27.8x	56.7x	33.8x	30.0x	41.3%	17.3%	31.1%	2.6x
Advanced Disposal Services, Inc.	ADSW	\$23.84	96.1%	\$2,106	\$4,029	2.8x	10.2x	30.6x	NM	48.7x	41.1x	37.5%	9.0%	27.4%	4.9x
Casella Waste Systems, Inc.	CWST	\$16.81	94.8%	\$707	\$1,207	2.1x	10.7x	23.4x	NM	30.8x	26.6x	32.5%	8.9%	19.4%	4.4x
Meridian Waste Solutions, Inc.	MIRDN	\$1.20	6.0%	\$12	\$100	2.4x	NM	NM	NM	NM	NM	33.6%	(30.9%)	(3.1%)	(68.5x)
Mean				\$12,718	\$16,538	3.0x	11.7x	23.5x	38.9x	33.1x	29.0x	36.8%	6.5%	21.7%	-8.6x
Median				\$9,844	\$12,614	2.9x	11.0x	23.4x	33.5x	30.8x	26.6x	37.5%	13.0%	27.3%	2.7x
High				\$33,031	\$42,977	4.8x	15.5x	30.6x	56.7x	48.7x	41.1x	41.3%	17.9%	31.1%	4.9x
Low				\$12	\$100	2.1x	10.2x	17.5x	26.4x	24.4x	22.2x	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 08/31/2017	% 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	\$71.89	81.7%	\$6,135	\$8,963	2.5x	11.5x	16.6x	NM	19.8x	19.0x	44.2%	15.0%	21.6%	3.6x
Clean Harbors, Inc.	CHH	\$54.09	87.8%	\$3,091	\$4,379	1.5x	10.5x	34.6x	NM	NM	NM	30.0%	4.4%	14.5%	3.1x
Darling Ingredients Inc.	DAR	\$17.40	98.3%	\$2,865	\$4,590	1.3x	9.4x	23.4x	34.2x	58.8x	21.2x	21.6%	3.9%	12.2%	3.8x
US Ecology, Inc.	ECOL	\$51.40	93.5%	\$1,122	\$1,397	2.9x	13.1x	21.4x	40.2x	30.7x	26.7x	30.0%	13.6%	22.3%	2.6x
Sharps Compliance Corp.	SMED	\$4.95	86.4%	\$79	\$77	2.0x	NM	NM	NM	NM	NM	31.0%	(1.3%)	2.6%	(2.1x)
Perma-Fix Environmental Services, Inc.	PESI	\$3.55	63.3%	\$42	\$46	0.9x	21.6x	NM	NM	NM	NM	19.9%	(5.0%)	4.1%	1.8x
Mean				\$2,222	\$3,242	1.9x	13.2x	24.0x	37.2x	36.4x	22.3x	29.4%	5.1%	12.9%	2.1x
Median				\$1,993	\$2,888	1.8x	11.5x	22.4x	37.2x	30.7x	21.2x	30.0%	4.1%	13.3%	2.8x
High				\$6,135	\$8,963	2.9x	21.6x	34.6x	40.2x	58.8x	26.7x	44.2%	15.0%	22.3%	3.8x
Low				\$42	\$46	0.9x	9.4x	16.6x	34.2x	19.8x	19.0x	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 08/31/2017	% 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	\$14.35	87.0%	\$1,883	\$4,671	2.7x	15.7x	52.5x	NM	NM	NM	30.8%	5.2%	17.4%	9.4x
Heritage-Crystal Clean, Inc.	HCCI	\$19.50	98.2%	\$441	\$445	1.3x	10.8x	19.1x	25.4x	31.3x	26.9x	25.6%	6.5%	11.6%	0.1x
CECO Environmental Corp.	CECE	\$7.47	80.2%	\$259	\$352	0.9x	7.2x	10.9x	NM	19.1x	13.7x	33.6%	8.3%	12.7%	1.9x
Cypress Energy Partners, L.P.	CELP	\$7.33	51.4%	\$87	\$178	0.6x	11.1x	17.3x	20.4x	16.5x	12.8x	12.1%	3.4%	5.4%	7.2x
Ecology & Environment, Inc.	EEL	\$11.85	90.8%	\$51	\$41	0.4x	7.2x	8.8x	37.7x	NM	NM	44.6%	4.6%	5.6%	(2.1x)
Fuel Tech, Inc.	FTEK	\$0.90	59.8%	\$22	\$15	0.4x	NM	NM	NM	NM	NM	35.9%	(31.1%)	(24.0%)	0.7x
Quest Resource Holding Corporation	QRHC	\$1.38	46.0%	\$21	\$26	0.1x	NM	NM	NM	(15.7x)	NM	9.1%	(3.6%)	(1.2%)	(2.3x)
Industrial Services of America, Inc.	ISDA	\$1.95	58.2%	\$16	\$23	0.5x	28.4x	NM	NM	NM	NM	5.3%	(3.2%)	1.8%	9.2x
Mean				\$347	\$719	0.9x	13.4x	21.7x	27.8x	12.8x	17.8x	24.6%	-1.2%	-3.7%	3.0x
Median				\$69	\$110	0.6x	10.9x	17.3x	25.4x	17.8x	13.7x	28.2%	4.0%	5.5%	1.3x
High				\$1,883	\$4,671	2.7x	28.4x	52.5x	37.7x	31.3x	26.9x	44.6%	8.3%	17.4%	9.4x
Low				\$16	\$15	0.1x	7.2x	8.8x	20.4x	-15.7x	12.8x	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





Trash Talk

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Select Mergers and Acquisitions & Capital Raising News

❖ Santek Acquires Texas-based Hauler

August 4, 2017 – Santek Waste Services LLC has acquired Conroe, Texas-based Enviro Waste Systems. Effective August 1st, Santek purchased all of Enviro Waste's assets. The transaction includes all of the company's residential, commercial and industrial customers. Edward Caylor, Santek's chief business development officer, said that the purchase is a strategic complement to Santek's acquisition of Major Waste earlier this year. Santek has made a series of transactions in 2017. In March, Santek acquired Bates Sanitation Inc. and Major Waste Services. In February, Santek acquired Jasper, Georgia-based Picklesimer Garbage Service for an undisclosed amount.

❖ Reclim Purchases Pennsylvania Recycling Facility

August 18, 2017 – Atlanta, Georgia-based Reclim LLC has entered into an asset purchase agreement with ARCA Advanced Processing for the purchase of an appliance recycling facility located in Philadelphia, Pennsylvania. The strategic acquisition extends Reclim's reach to the Northeast and builds on its recent purchase of Nova Services, Inc. assets in Dundalk, Maryland. The acquisition gives Reclim de-manufacturing capabilities in Pennsylvania. De-manufacturing is distinct from recycling because it involves recovering more materials from appliances, HVAC systems and vending machines, benefitting the environment. The Philadelphia plant is one of only three plants in the country that can capture and process ozone-depleting substances and greenhouse gases that are found in the foam lining of expired appliances.

❖ Waste Industries Buys Out Shareholder

August 18, 2017 – Raleigh, North Carolina-based Waste Industries has executed a binding stock purchase agreement with a new investor group buying out Macquarie Infrastructure Partners as the primary shareholder. A newly-formed investor group, including the family of Chairman and CEO Ven Poole, members of senior management and funds controlled by HPS Investment Partners LLC and Equity Group Investments will acquire 100 percent of the stock of the company. MIP has been a shareholder of Waste Industries since 2008. A transaction price was not disclosed. Poole will remain in his leadership position under the new ownership structure along with his senior management team. According to the company, Waste Industries' new ownership structure will allow it to continue as a privately-held business with no impact on the existing operations. The new ownership structure will also enable Waste Industries to continue its focus on growth and best-in-class performance, on which the company's reputation is based. The transaction is expected to close in late September and is subject to customary regulatory approvals. In 2015, the company successfully completed a \$975 million refinancing of its senior secured credit facilities, consisting of a \$275 million revolving credit facility and a \$700 million term loan B, both maturing in 2020.

❖ Waste Pro Issues New Bonds

August 18, 2017 – Longwood, Florida-based WastePro USA announced it had completed two solid waste disposal revenue bond offerings with an aggregate principal amount of \$50 million. The offerings consisted of \$32.5 million Florida Development Finance Corp. Solid Waste Disposal Revenue Bonds and \$17.5 million Mississippi Business Finance Corp. Solid Waste Disposal Revenue Bonds. During the five year term interest rate period, the interest rate on the Florida Bonds will be 5.00 percent. The Florida Bonds will mature on August 1, 2029 and will be guaranteed by certain subsidiaries of Waste Pro, pursuant to the terms of the Florida Bonds indenture. During the five year term interest rate period, the interest rate on the Mississippi Bonds will be 5.00 percent. The Mississippi Bonds will mature on February 1, 2036 and will be guaranteed by certain subsidiaries of Waste Pro, pursuant to the terms of the Mississippi Bonds indenture.

❖ Hidden Harbor Capital Partners Buys Stella Environmental Holdings

August 23, 2017 – Fort Lauderdale, Florida-based Hidden Harbor Capital Partners, an operationally focused private equity firm specializing in control investments in lower middle market companies, has acquired Houston-based Stella Environmental Holdings, Inc., a division of Action Resources and a leading provider of transfer station management and municipal waste logistics services. Monroe Capital provided financing for the transaction and Raymond James served as an advisor to Stella Environmental Holdings, Inc.

❖ Republic Boosts Recycling Capabilities with Acquisition of ReCommunity

August 24, 2017 – Republic Services Inc. has entered into a definitive agreement to acquire ReCommunity Holdings II Inc., an independent recycling-processing company with 26 recycling centers in 14 states. Financial terms were not disclosed. Republic cited ReCommunity's assets and expertise as complementing its existing recycling collection and processing operations. The transaction, if finalized, will also enable the company to meet growing demand for recycling in multiple markets. ReCommunity's facilities recover approximately 1.6 million tons of recycled commodities annually. The transaction also includes the assumption of multiple long-term municipal agreements with processing fee-based structures, which Republic says align with its recycling pricing model. As part of its Blue Planet sustainability platform, Republic has a goal of adding an additional 150,000 tons or more per year of recycling capacity by 2018. Republic currently operates 64 recycling centers nationwide which recover approximately 2.5 million tons of recycled commodities annually. In its second quarter earnings report, Republic reported that it had invested \$36 million in tuck-in acquisitions during the second quarter and \$91 million year-to-date.



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Select Industry News

❖ **EcoHub Files Suit Against Houston Force the Release of Public Documents**

August 2, 2017 – EcoHub is continuing its battle with the city of Houston over the city's pending recycling contract. The company has filed a lawsuit against the city to compel the release of documents and emails that the city is withholding. In late June, Houston Mayor Sylvester Turner had announced a 20-year recycling contract with FCC Environmental worth \$48 million. In July, however, the Houston City Council delayed a vote on the proposed contract. City Council members are questioning the length and price of the contract since it has changed numerous times over the past couple of months. A day later, Turner reopened the bidding process. FCC, Republic Services, Waste Management and Independent Texas Recyclers were allowed to present 'best and final offers' for the contract. Having been shut out of that bidding, Ecohub is now pushing for records and emails to shed light on the contract process. George Gitschel, the founder of EcoHub, has spent the last 25 years trying to find a way to get rid of garbage. His solution, EcoHub, is a 58-step solid waste recycling system that would separate waste into various recycling streams. For the past several years, the City of Houston was poised to become the pilot city for EcoHub. However, Houston Mayor Sylvester Turner recently decided against the One Bin project, awarding trash collector FCC with a \$1.6 million-per-year contract. This decision has sparked an outcry from Gitschel, who claims that the mayor snubbed him by excluding him from the contract bidding process.

❖ **Advanced Disposal Posts Organic Growth While Continuing to Complete Tuck-in Acquisitions**

August 3, 2017 – Ponte Vedra, Florida-based Advanced Disposal Services saw its revenue rise 7 percent year-over-year in the second quarter fueled both by strong operational results as well as a series of tuck-in acquisitions the company has completed year-to-date. Overall, revenue for the three months ended June 30 was \$383.1 million versus \$358.2 million in the same period of the prior year. Net loss during the second quarter of 2017 was \$200,000 versus net income of \$200,000 in the second quarter of 2016. Acquisitions drove nearly half of the increase led by the company's recent purchase of CGS Services Inc., along with seven tuck-in acquisitions completed during the first six months of 2017. Organic volume also turned positive during the second quarter up 0.6 percent driven by growth in disposal revenue and average price yield was 1.4 percent.

❖ **California Governor Signs Waste Management Bill into Law**

August 4, 2017 – California Governor Jerry Brown has signed into law Assembly Bill 1572, which gives California Department of Resources and Recycling Recovery (CalRecycle) more flexibility to ensure that local residents comply with the sustainable waste management law and reduce burdens associated with oversight for areas that exceed state requirements. This law goes hand-in-hand with legislation passed in 2016, which asked locals to divert 50 percent of organic waste from landfills by 2020 and 75 percent by 2025.

❖ **Workers at Sims Municipal Recycling in NYC Sign First Teamsters Contract**

August 17, 2017 – Workers at the Sims Municipal Recycling MRF in the Sunset Park neighborhood of Brooklyn, New York, voted to approve their first union contract as members of Teamsters Local 210. The vote caps an organizing drive by workers at the recycling facility, which processes all of the city's residential recycling. Under the contract, workers will receive immediate raises and a union healthcare plan with premiums fully paid by the company.

❖ **Davenport, Iowa Recycling Center Adds Jobs to Support 250% Increase**

August 24, 2017 – In 2016, the "Go all in" recycling program, which is similar to a single stream recycling program, launched in the cities of Davenport and Bennendorf, Iowa. Since then, residents have recycled a total of 17,392 tons of materials, or a 250 percent increase from the prior year. The materials are sent to the Scott Area Recycling Center for sorting and processing, and to keep up with the uptick in materials, the recycling center is adding 11 additional jobs beginning on September 1. The new hires will assist in sorting materials and preparing for another increase that will come from the city of Clinton, which is switching to single stream recycling on October 1.

❖ **Eco Waste Solutions Names Jean Lucas as New President, CEO**

August 28, 2017 – Eco Waste Solutions Executive Vice President Jean Lucas has been named the new president and CEO of the company. Lucas will replace longtime CEO and President Steve Meldrum. The company believes that the organizational change will lead to its continued success over the next decade.

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