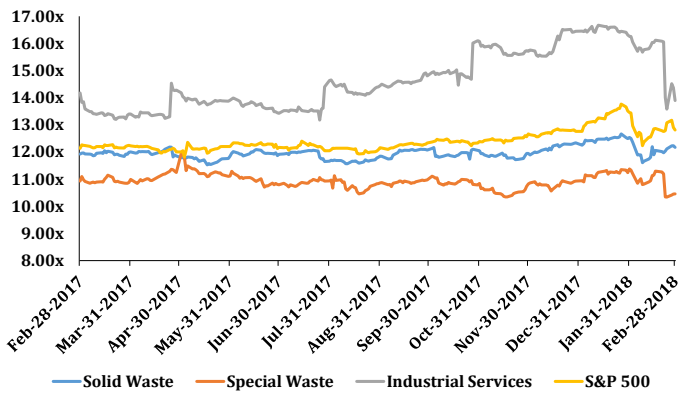


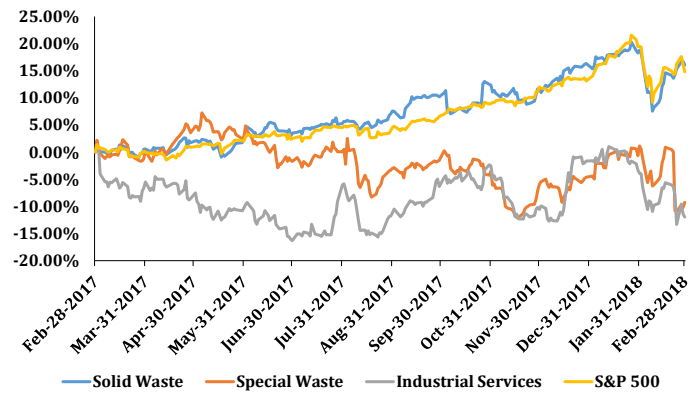
Trash Talk

An Environmental Services
Newsletter

Environmental Services LTM TEV/EBITDA



Environmental Services LTM Share Price (Shown as % change)



Indices Performance (% change)

	February 2018	LTM		February 2018	LTM
S&P 500	(3.8%)	14.8%	Solid Waste	(2.3%)	16.0%
Dow Jones	(4.4%)	20.3%	Special Waste	(10.3%)	(9.3%)
NASDAQ	(1.5%)	24.8%	Industrial Services	(8.4%)	(12.0%)

(Source: CapitalIQ)

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

Perma-Fix Environmental Services, Inc.	8.3%	Meridian Waste Solutions, Inc.	(39.8%)
Ecology & Environment, Inc.	4.2%	Stericycle, Inc.	(16.8%)
Sharps Compliance Corp.	2.0%	Cypress Energy Partners, L.P.	(14.2%)
US Ecology, Inc.	1.2%	Clean Harbors, Inc.	(9.8%)
		CECO Environmental Corp.	(9.3%)

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 Newsletter

Select Public Trading Statistics (as of 2/28/2018)

Solid Waste:

(\$ in millions, except per share data)

Company	Share Price 02/28/2018	% 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	CY18 P/E	CY19 P/E	Gross	EBIT	EBITDA		
Waste Management, Inc.	WM	\$86.32	96.2%	\$37,435	\$46,927	3.2x	11.9x	18.4x	19.6x	23.2x	21.1x	37.7%	18.1%	27.6%	2.4x
Republic Services, Inc.	RSG	\$67.18	96.8%	\$22,251	\$30,357	3.0x	11.1x	18.7x	17.8x	22.1x	20.0x	38.1%	16.5%	27.6%	2.9x
Waste Connections, Inc.	WCN	\$70.78	95.4%	\$18,662	\$22,160	4.8x	15.3x	27.2x	32.5x	31.4x	28.4x	41.6%	17.6%	31.3%	2.4x
Advanced Disposal Services, Inc.	ADSW	\$22.38	87.0%	\$1,981	\$3,933	2.6x	10.0x	36.9x	52.0x	51.2x	39.0x	36.2%	7.0%	25.9%	5.0x
Casella Waste Systems, Inc.	CWST	\$25.42	92.8%	\$1,069	\$1,551	2.6x	13.5x	29.1x	NM	37.9x	31.3x	32.4%	8.8%	19.2%	4.2x
Meridian Waste Solutions, Inc.	MREN	\$0.65	16.3%	\$11	\$102	2.1x	29.0x	NM	NM	NM	NM	31.4%	(28.2%)	7.3%	25.6x
Mean				\$13,568	\$17,505	3.1x	15.1x	26.0x	30.5x	33.2x	28.0x	36.2%	6.6%	23.1%	7.1x
Median				\$10,322	\$13,047	2.8x	12.7x	27.2x	26.0x	31.4x	28.4x	37.0%	12.6%	26.7%	3.6x
High				\$37,435	\$46,927	4.8x	29.0x	36.9x	52.0x	51.2x	39.0x	41.6%	18.1%	31.3%	25.6x
Low				\$11	\$102	2.1x	10.0x	18.4x	17.8x	22.1x	20.0x	31.4%	-28.2%	7.3%	2.4x

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 02/28/2018	% 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	CY18 P/E	CY19 P/E	Gross	EBIT	EBITDA		
Stericycle, Inc.	SRCL	\$62.67	71.2%	\$5,361	\$8,073	2.3x	10.7x	16.0x	232.1x	17.1x	16.4x	40.9%	14.1%	21.1%	3.6x
Darling Ingredients Inc.	DAR	\$18.19	93.3%	\$2,995	\$4,686	1.3x	10.0x	28.3x	23.6x	24.5x	22.3x	21.5%	3.7%	12.0%	3.7x
Clean Harbors, Inc.	CLH	\$49.93	81.0%	\$2,821	\$4,093	1.4x	9.7x	30.9x	28.4x	NM	NM	30.0%	4.5%	14.3%	3.0x
US Ecology, Inc.	ECOL	\$52.90	88.6%	\$1,155	\$1,405	2.8x	12.8x	20.5x	23.5x	26.8x	24.0x	30.4%	13.6%	21.8%	2.3x
Sharps Compliance Corp.	SMED	\$4.54	79.3%	\$73	\$70	1.7x	NM	NM	NM	NM	NM	30.5%	0.4%	4.3%	(2.0x)
Perma-Fix Environmental Services, Inc.	PESI	\$3.90	90.7%	\$46	\$49	1.0x	18.2x	NM	NM	NM	NM	17.3%	(8.2%)	0.9%	(2.4x)
Mean				\$2,075	\$3,063	1.7x	12.3x	23.9x	76.9x	22.8x	20.9x	28.4%	4.7%	12.4%	1.4x
Median				\$1,988	\$2,749	1.6x	10.7x	24.4x	26.0x	24.5x	22.3x	30.2%	4.1%	13.1%	2.7x
High				\$5,361	\$8,073	2.8x	18.2x	30.9x	232.1x	26.8x	24.0x	40.9%	14.1%	21.8%	3.7x
Low				\$46	\$49	1.0x	9.7x	16.0x	23.5x	17.1x	16.4x	17.3%	-8.2%	0.9%	(2.4x)

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 02/28/2018	% 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	CY18 P/E	CY19 P/E	Gross	EBIT	EBITDA		
Covanta Holding Corporation	CVA	\$14.95	86.4%	\$1,938	\$4,409	2.5x	15.7x	66.8x	34.1x	NM	NM	28.7%	3.7%	16.0%	8.8x
Heritage-Crystal Clean, Inc.	HCCI	\$20.00	79.4%	\$458	\$445	1.2x	8.4x	12.3x	16.3x	27.6x	22.9x	24.6%	6.5%	11.4%	(0.3x)
CECO Environmental Corp.	CECE	\$4.11	33.6%	\$143	\$240	0.6x	6.0x	10.1x	NM	36.8x	21.2x	33.0%	5.5%	10.2%	2.9x
Cypress Energy Partners, L.P.	CELP	\$6.32	44.4%	\$75	\$170	0.6x	11.4x	18.6x	30.4x	17.2x	14.7x	12.1%	3.1%	5.1%	7.9x
Ecology & Environment, Inc.	EEL	\$11.25	86.2%	\$48	\$33	0.3x	5.0x	5.9x	18.2x	NM	NM	44.7%	4.8%	5.8%	(3.0x)
Quest Resource Holding Corporation	QBHC	\$2.14	71.3%	\$33	\$38	0.2x	NM	NM	NM	#DIV/0!	NM	10.2%	(3.2%)	(0.6%)	(5.7x)
Fuel Tech, Inc.	FTFK	\$1.09	87.9%	\$26	\$20	0.5x	NM	NM	NM	NM	NM	39.9%	(8.8%)	(5.4%)	3.4x
Industrial Services of America, Inc.	ISDA	\$2.12	80.3%	\$17	\$24	0.5x	13.1x	NM	NM	NM	NM	6.4%	(0.8%)	3.6%	3.9x
Mean				\$342	\$673	0.8x	9.9x	22.8x	24.7x	#DIV/0!	19.6x	24.9%	1.3%	5.7%	2.2x
Median				\$62	\$104	0.5x	9.9x	12.3x	24.3x	#DIV/0!	21.2x	26.6%	3.4%	5.5%	3.2x
High				\$1,938	\$4,409	2.5x	15.7x	66.8x	34.1x	#DIV/0!	22.9x	44.7%	6.5%	16.0%	8.8x
Low				\$17	\$20	0.2x	5.0x	5.9x	16.3x	#DIV/0!	14.7x	6.4%	-8.8%	-5.4%	(5.7x)

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

❖ Energy Capital Partners to Acquire Gopher Resource

February 1, 2018 – Gopher Resource LLC of Eagan, Minnesota, announced its agreement to be acquired by Energy Capital Partners (ECP), a private equity firm based in New Jersey. The transaction is expected to be finalized on March 6, 2018, at which point Gopher Resource would join an existing collection of energy-related companies owned by ECP. Jeffrey Jacobsen, CEO of Gopher Resource, said in a statement that he doesn't expect any changes in the Gopher Resource personnel or daily operations. The two companies have reportedly been in talks for some time, and Jacobsen cited in a statement Gopher Resource's performance and growth in the battery industry as reasons for ECP's interest.

❖ TerraCycle US Acquires Chicago-based Air Cycle Corporation

February 2, 2018 – TerraCycle US Inc. has announced the acquisition of Chicago-based universal recycling company Air Cycle Corporation. Air Cycle will join the Regulated Waste division of TerraCycle. "This acquisition marks an important step in our growth and diversification strategies," said TerraCycle CEO Tom Szaky in a statement. "Adding Air Cycle to TerraCycle's core business means that we can now offer, for the first time, the collection and recycling of products mandated for disposal by federal regulations, in addition to the voluntary programs we've had for over ten years." This acquisition announcement comes shortly after TerraCycle's qualification to issue a Regulation A offering to raise up to \$25 million. TerraCycle will reportedly use the funds to expand its offerings as well as acquire other companies going forward.

❖ Waste Pro Announces Recapitalization, \$500M Senior Note Private Offering

February 2, 2018 – Waste Pro USA, Inc., the private waste services provider, announced the completion of an increased private offering of \$500 million aggregate principal amount of its 5.5 percent Senior Notes, which will be due in 2026. Waste Pro will use the funds from these notes to repay loans and outstanding amounts in existing credit agreements. Initially, Waste Pro sought an offering of \$450 million, but it increased the offering to \$500 million after a great deal of interest from investors. "The improved credit structure is expected to reduce the company's interest burden by as much as \$14.5 million annually, giving the company flexibility to reinvest the interest savings back into the company through SMART growth initiatives to further de-lever the balance sheet," stated Cort Sabina, CFO of Waste Pro, in a statement.

❖ Boulevard Acquisition Corp. II and Estre Ambiental S.A. Finalize Combination

February 2, 2018 – Boulevard Acquisition Corp II and Estre Ambiental S.A. have announced the finalization of their previously announced business combination. The newly formed company is called Estre Ambiental, Inc. and began trading shares on the NASDAQ on December 22, 2017. "We are excited to have completed our combination with Boulevard and look forward to continuing our strategy of pursuing organic and acquisition growth opportunities," said Sérgio Pedreiro, CEO of Estre, in a statement. "We will continue to work hard to distinguish Estre as the leading waste management enterprise in Latin America and maximize the abundant opportunities ahead." The company has continued to be led by the Estre management team, with Pedreiro at the helm.

❖ HIG Capital Acquires Wastequip from Centerbridge Partners

February 7, 2018 – H.I.G. Capital, LLC, a private equity investment firm, has acquired Wastequip, the Charlotte, North Carolina-based waste equipment manufacturer. Wastequip had been under the ownership of Centerbridge Partners, L.P., which purchased the company in 2012. Wastequip's current management will continue to be in charge of business operations going forward, and the transaction is expected to be finalized by the end of the first quarter of 2018.

❖ Covanta Acquires Quantex Environmental, Expands Presence in Canada

February 12, 2018 – Covanta Environmental Solutions, the Morristown, New Jersey-based environmental services provider, has announced its recent acquisition of Quantex Environmental Inc., a private company based in Kitchener, Ontario, Canada. This marks the second Canadian acquisition for Covanta in recent months, as the company moves to expand its presence and offerings in the Canadian market. Covanta has expanded its number of material processing and recycling facilities in the U.S. and Canada to 17 with this acquisition.

❖ Mountain Waste & Recycling Purchases Three Colorado Companies

February 15, 2018 – Colorado-based Mountain Waste & Recycling has acquired three local environmental service companies, forming one of the largest waste and recycling companies in the state. Timberline Disposal, Talking Trash and Rocky Mountain Cabana have been operating in the mountain towns within Summit County and parts of Clear Creek County for years, and now the trio will operate under the name Timberline Disposal & Recycling in Silverthorne, Colorado. Mountain Waste & Recycling President Scott Eden says these acquisitions will make competition easier and more effective. As far as operations go, there will be no employee layoffs, according to the company. However, some redundant truck routes will be eliminated. Until further notice, customers are being asked to maintain their normal waste and recycling collection schedule. New signage and other branding will be rolled out gradually.



Trash Talk

An Environmental Services
Newsletter

❖ Meridian Waste Solutions Agrees to Sell Solid Waste Management Assets

February 21, 2018 – Meridian Waste Solutions, Inc., an Atlanta-based technology company, announced the completion of an agreement to sell the equity interest of its wholly-owned subsidiaries that house its Solid Waste Group to Warren Equity Partners Fund II in exchange for roughly \$87 million in debt assumption and \$3 million in cash. Meridian will likely now re-brand as Attis Industries, Inc., focusing more on its burgeoning technological projects and less on the solid waste collection, transfer and disposal that had historically comprised most of the business.

Select Industry News

❖ Estre Ambiental Names Andreas Gruson as Board Chairman

February 1, 2018 – Estre Ambiental, Inc., the parent company of Estre Ambiental S.A., has announced the appointment of Andreas Gruson as the independent chairman of its board of directors. Estre Ambiental S.A. is the largest waste management company in Latin America. Gruson has held many different roles throughout the environmental services industry, both in Latin America and in the U.S. He has served as director of Estre Ambiental S.A. since March 2016.

❖ GreenManta Technologies Names Jodie Morgan as New CEO

February 5, 2018 – GreenMantra Technologies, a clean technology company that produces high-value polymer products from waste plastics, has named Jodie Morgan as its new CEO. Morgan has ample experience growing specialty chemicals, green technology and other high-value additive businesses. Morgan previously served as president of Pinova Inc., a leading global supplier of renewable rosin and polyterpene resin innovations; Solazyme Roquette Nutritionals, LLC, a multi-national food ingredients company; and SPI Polyols, Inc., a global manufacturer of specialty polyols and sugars. She's also been on the board of directors of GreenMantra since early 2017 and worked closely with the management team to develop the business' vision and strategy.

❖ Waste Imported to Michigan from Canada Increased by 19% in 2017

February 6, 2018 – According to the 2017 solid waste report from the Michigan Department of Environmental Quality, Michigan accepted 10.5 million cubic yards of trash from Canada in 2017, up from 8.8 million cubic yards in the previous year. Waste from Canada accounted for 21 percent of the 50.6 million cubic yards of trash that went into Michigan landfills in 2017, according to the report. The total amount of waste added to landfill was up 3 percent from 2016 totals. Imported waste levels are much higher in Michigan than in nearby states, due primarily to the state's relatively low disposal rates. Out-of-state waste in 2017 was actually 14 percent lower than the 2016 total, per the report.

❖ Kalish Environmental Announces Partnership with Simple Environmental Services Group

February 26, 2018 – Kalish Environmental has announced a strategic alliance with Simple Environmental Services Group, a solid waste provider in Las Vegas. Through this partnership, Kalish Environmental will assist Simple Environmental in developing a new "High Volume Diversion" program that's designed to help large companies in Southern Nevada divert waste from landfills. Kalish Environmental is run by Stephen Kalish, who has more than 40 years of experience in the solid waste industry in Southern Nevada. Simple Environmental Services Group has developed a strong presence in Las Vegas over the last 10 years, working with several companies across several industries.

❖ Sappi North America Joins the Recycling Partnership

February 28, 2018 – Sappi North America, the Boston-based supplier of paper and packaging products, has joined national nonprofit The Recycling Partnership as a new funding partner. The company will fund the nonprofit's efforts to increase materials recovery and reduce the creation of greenhouse gases. "Sappi North America has been part of The Recycling Partnership through the Recycling Works in Publishing," said Keefe Harrison, CEO of The Recycling Partnership, in a statement. "We are grateful to have them now on board as a direct partner. The work Sappi has done throughout Maine and beyond with co-funding pedestrian recycling bins has been very successful. We look forward to working with their team on generating new ideas and partnerships to improve recycling in cities and towns across the United States." Since 2015, The Recycling Partnership has invested more than \$27 million in improvements to local and national recycling infrastructure. Sappi North America will join nearly 40 other companies as a funding partner.

Trash Talk is a monthly newsletter published by The Chicago Corporation. To subscribe, please visit www.thechicagocorp.com.

Information contained in this publication is based on data obtained from sources we deem to be reliable, however, it is not guaranteed as to accuracy and does not purport to be complete. Nothing contained in this publication is intended to be a recommendation of a specific security or company nor is any of the information contained herein intended to constitute an analysis of any company or security reasonably sufficient to form the basis for any investment decision. Nothing contained in this publication constitutes an offer to buy or sell or the solicitation of an offer to buy or sell any security. Officers or employees of affiliates of The Chicago Corporation, or members of their families, may have a beneficial interest in the securities of a specific company mentioned in this publication and may purchase or sell such securities in the open market or otherwise. Sources include Waste360, Waste Dive and various publicly available news publications. Additional information is available upon request.

