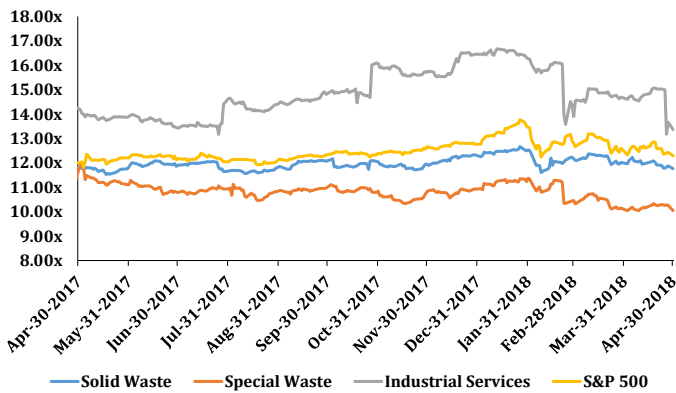


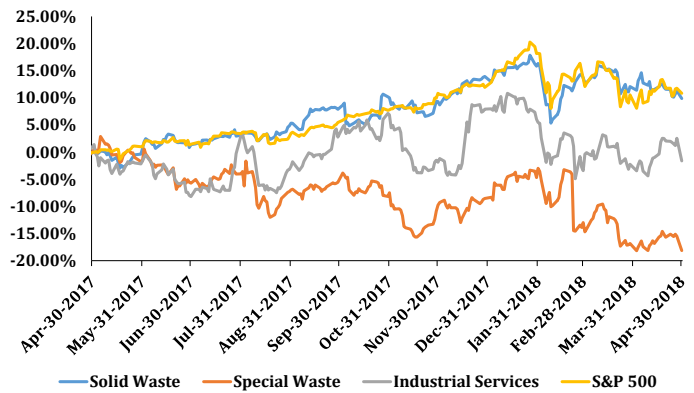
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Environmental Services LTM TEV/EBITDA



Environmental Services LTM Share Price (Shown as % change)



Indices Performance (% change)

	<u>April 2018</u>	<u>LTM</u>		<u>April 2018</u>	<u>LTM</u>
S&P 500	2.6%	10.9%	Solid Waste	(2.0%)	9.9%
Dow Jones	2.2%	15.5%	Special Waste	(1.6%)	(18.1%)
NASDAQ	2.9%	16.0%	Industrial Services	0.6%	(1.6%)

(Source: CapitalIQ)

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

Cypress Energy Partners, L.P.	16.3%	Quest Resource Holding Corporation	(15.0%)
Ecology & Environment, Inc.	12.3%	Sharps Compliance Corp.	(12.3%)
Perma-Fix Environmental Services, Inc.	7.2%	Industrial Services of America, Inc.	(10.3%)
Fuel Tech, Inc.	6.7%	Heritage-Crystal Clean, Inc.	(10.2%)
CECO Environmental Corp.	5.6%	Clean Harbors, Inc.	(6.2%)

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Select Public Trading Statistics (as of 4/30/2018)

Solid Waste:

(\$ in millions, except per share data)

Company	Share Price 04/30/2018	% 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	\$81.29	90.6%	\$35,059	\$44,985	3.1x	11.2x	17.1x	17.5x	23.0x	21.1x	37.9%	18.3%	27.9%	2.4x
Republic Services, Inc.	BSG	\$64.68	93.2%	\$21,321	\$29,428	2.9x	10.7x	18.1x	17.2x	22.6x	20.6x	38.5%	16.7%	27.9%	2.9x
Waste Connections, Inc.	WCN	\$72.30	96.9%	\$19,049	\$22,547	4.9x	15.6x	27.6x	33.2x	31.8x	28.7x	41.8%	17.8%	31.5%	2.5x
Advanced Disposal Services, Inc.	ADSW	\$22.04	85.7%	\$1,951	\$3,903	2.6x	10.0x	36.6x	51.3x	49.0x	39.7x	36.4%	7.3%	26.2%	4.8x
Casella Waste Systems, Inc.	CWST	\$24.51	89.5%	\$1,046	\$1,527	2.5x	13.3x	28.9x	NM	40.4x	32.4x	32.0%	8.3%	18.8%	4.3x
Attis Industries, Inc.	ATIS	\$0.60	16.5%	\$10	\$24	26.5x	NM	NM	NM	NM	NM	7.8%	NM	NM	(0.7x)
Mean				\$13,073	\$17,069	7.1x	12.1x	25.7x	29.8x	33.4x	28.5x	32.4%	13.7%	26.5%	2.7x
Median				\$10,500	\$13,225	3.0x	11.2x	27.6x	25.3x	31.8x	28.7x	37.2%	16.7%	27.9%	2.7x
High				\$35,059	\$44,985	26.5x	15.6x	36.6x	51.3x	49.0x	39.7x	41.8%	18.3%	31.5%	4.8x
Low				\$10	\$24	2.5x	10.0x	17.1x	17.2x	22.6x	20.6x	7.8%	7.3%	18.8%	-0.7x

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 04/30/2018	% 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.	SREL	\$58.71	66.7%	\$5,024	\$7,736	2.2x	10.3x	15.3x	217.4x	17.2x	16.6x	40.6%	12.8%	19.9%	3.8x
Darling Ingredients Inc.	DAR	\$17.14	87.9%	\$2,822	\$4,512	1.2x	9.7x	27.3x	22.3x	18.7x	23.8x	21.7%	3.7%	12.2%	3.7x
Clean Harbors, Inc.	CLH	\$45.80	74.3%	\$2,579	\$3,880	1.3x	9.1x	29.0x	26.0x	NM	NM	29.7%	4.6%	14.3%	3.3x
US Ecology, Inc.	ECOL	\$53.30	89.3%	\$1,168	\$1,419	2.8x	12.9x	20.7x	23.7x	27.0x	24.0x	30.5%	13.6%	21.6%	2.1x
Sharps Compliance Corp.	SMED	\$3.98	69.5%	\$64	\$61	1.5x	NM	NM	NM	NM	NM	29.8%	0.2%	4.1%	(2.0x)
Perma-Fix Environmental Services, Inc.	PESI	\$4.45	98.9%	\$52	\$55	1.1x	46.7x	NM	NM	NM	NM	21.4%	(3.7%)	2.5%	0.5x
Mean				\$1,951	\$2,939	1.7x	17.7x	23.1x	72.4x	21.0x	21.5x	28.9%	5.2%	12.4%	1.9x
Median				\$1,873	\$2,635	1.4x	10.3x	24.0x	24.9x	18.7x	23.8x	29.7%	4.2%	13.2%	2.7x
High				\$5,024	\$7,736	2.8x	46.7x	29.0x	217.4x	27.0x	24.0x	40.6%	13.6%	21.6%	3.8x
Low				\$52	\$55	1.1x	9.1x	15.3x	22.3x	17.2x	16.6x	21.4%	-3.7%	2.5%	(2.0x)

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 04/30/2018	% 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	\$14.90	86.1%	\$1,931	\$4,334	2.4x	13.8x	44.7x	6.3x	NM	NM	30.1%	5.3%	17.3%	7.7x
Heritage-Crystal Clean, Inc.	HCCI	\$21.15	83.9%	\$501	\$489	1.3x	11.8x	20.7x	17.2x	33.2x	22.0x	23.2%	5.7%	10.4%	(0.2x)
CECO Environmental Corp.	CECE	\$4.70	39.1%	\$163	\$265	0.8x	9.3x	21.4x	NM	25.5x	15.9x	32.9%	2.2%	6.9%	2.5x
Cypress Energy Partners, L.P.	CELP	\$6.50	74.3%	\$77	\$167	0.6x	12.1x	20.3x	24.1x	18.1x	NM	12.4%	3.4%	5.3%	7.0x
Ecology & Environment, Inc.	EEI	\$13.05	97.0%	\$56	\$40	0.4x	6.4x	7.8x	25.4x	NM	NM	44.7%	4.8%	5.8%	(3.0x)
Quest Resource Holding Corporation	QRHC	\$1.88	62.7%	\$29	\$35	0.2x	NM	NM	NM	NM	NM	12.5%	(3.9%)	(0.5%)	(6.7x)
Fuel Tech, Inc.	FTFK	\$1.28	69.9%	\$31	\$23	0.5x	NM	NM	NM	NM	NM	39.1%	(5.0%)	(2.3%)	5.0x
Industrial Services of America, Inc.	ISDA	\$2.23	82.6%	\$18	\$25	0.5x	13.1x	NM	NM	NM	NM	6.2%	0.2%	4.0%	3.4x
Mean				\$351	\$672	0.8x	11.1x	23.0x	18.2x	25.6x	18.9x	25.1%	1.6%	5.9%	2.0x
Median				\$67	\$103	0.5x	11.9x	20.7x	20.6x	25.5x	18.9x	26.7%	2.8%	5.5%	3.0x
High				\$1,931	\$4,334	2.4x	13.8x	44.7x	25.4x	33.2x	22.0x	44.7%	5.7%	17.3%	7.7x
Low				\$18	\$23	0.2x	6.4x	7.8x	6.3x	18.1x	15.9x	6.2%	-5.0%	-2.3%	(6.7x)

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

❖ Advanced Enviro Systems Acquires New Jersey-based TrashPro

April 3, 2018 – Advanced Enviro Systems, a Camden, New Jersey-based waste reduction and recycling company, has completed a leveraged buyout of TrashPro, a Mount Laurel, New Jersey-based waste consulting company. The acquisition will serve as an expansion of Advanced's consulting division. TrashPro, which was created in 2001 by Robb Willis, specializes in shared savings, waste audits, roll-off services and expense reimbursement. Since its inception, the company has advised many clients on the specifics of the waste management business. Today, TrashPro handles day-to-day operations for more than 26,000 multifamily units.

❖ Meridian Waste Solutions Acquires Environmental Trash Company

April 10, 2018 – Meridian Waste Solutions, Inc., an innovative technology and integrated, non-hazardous solid waste services company based in Atlanta, has acquired St. Ann, Missouri-based Environmental Trash Company (ETC). Meridian Waste will now provide waste and recycling services to approximately 2,000 commercial and residential subscription customers in St. Louis and St. Charles Counties from its existing Bridgeton, Missouri location.

❖ WestRock Acquires QRS Recycling

April 16, 2018 – WestRock has expanded its recycling capabilities in Louisville, Kentucky, with the acquisition of QRS Recycling. QRS provides domestic solutions for pre-picked containers, paper and cardboard, metals, single stream and commercial dry waste. WestRock plans to consolidate its existing Louisville recycling operations into the acquired operations, making it the largest single stream recycling facility in the company's network. The expanded Louisville operation will be able to supply East Coast plants with recycled fiber.

❖ GFL Environmental Receives New Private Equity Funding

April 30, 2018 – GFL Environmental Inc. and investors led by BC Partners, including Ontario Teachers' Pension Plan and others, announced their agreement to recapitalize GFL Environmental Holdings Inc. The transaction implies a total GFL enterprise value of approximately \$5.125 billion, making GFL one of the largest environmental services companies in North America. In connection with the transaction, Patrick Dovigi, founder and CEO of GFL, will maintain his role and significant ownership in the company, while the investors will acquire the interests of current partners including funds managed or associated with HPS Investment Partners, Macquarie Infrastructure Partners III and Hawthorn Equity Partners. GFL is one of the fastest growing North American providers of diversified environmental solutions. It provides services in solid waste management, liquid waste management and infrastructure management. Through its network of more than 140 facilities across Canada and in Michigan, GFL provides cost-effective waste management solutions that encourage greater environmental responsibility. GFL's team of more than 5,000 employees provides local services to more than 2.5 million households under municipal contracts and to more than 60,000 industrial, commercial and institutional customers. The transaction is expected to close by June 30. Scotiabank acted as financial advisor to BC Partners in Canada with Citi in the United States. Citigroup Global Markets Inc. also provided committed financing for the transaction. RBC Capital Markets, CIBC World Markets Inc., Goldman Sachs & Co. LLC, BMO Capital Markets and Barclays Capital Canada acted as financial advisor to GFL. Stikeman Elliott LLP and Cleary Gottlieb Steen & Hamilton LLP are legal advisors to GFL, while Osler, Hoskin & Harcourt LLP and Simpson Thacher & Bartlett LLP provided legal advice to the investors.

Select Industry News

❖ Priority Waste Launches in Detroit Market

April 4, 2018 – Priority Waste, a new waste and recycling company based temporarily in Clinton Township, Michigan, has recently launched and hopes to grow quickly in the fast-changing Detroit waste market. The company has already expanded in its short life from two to six drivers, and it owns six trucks and 300 containers. Sam Langer, COO of Priority Waste, thinks that the local waste and recycling market will help foster quick growth for the new company, primarily due to the rebounding economy in Detroit. He also noted that customer satisfaction in the area is down due to several recent acquisitions by larger companies.

❖ Nestlé Aims to Make 100% Recyclable or Reusable Packaging by 2025

April 11, 2018 – Nestlé has announced its commitment to make 100 percent of its packaging recyclable or reusable by 2025. The company believes that there is an urgent need to minimize the impact of packaging on the environment, and it's dedicated to doing its part to reduce packaging waste. To reach its goal, the company will focus on three core areas: eliminating non-recyclable plastics, encouraging the use of plastics that allow better recycling rates and eliminating or changing the complex combinations of packaging materials.

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❖ Republic Services Landfill Workers to Join Teamsters Local 542

April 11, 2018 – Following a two-month campaign, Republic Services landfill workers voted 28-5 in favor of joining Teamsters Local 542 last week. The landfill workers will join two other San Diego-based Republic Services waste hauler locations as members of Local 542.

❖ Taylor Garbage Service Issues Apology for Price Collusion Following Settlement

April 12, 2018 – Taylor Garbage Service Inc. recently settled with New York State for price fixing and bid rigging, a scheme that the company is calling a “regrettable mistake.” As part of the settlement, Taylor Garbage will pay the state \$500,000 in civil penalties, and the company’s majority owner Robert Taylor will pay an additional \$50,000. From July 2014 until May 2016, Taylor Garbage and its competitor Bert Adams Disposal Inc. fixed prices and worked together to decide which company would offer a lower bid or price quote, according to the office of New York Attorney General Eric Schneiderman. During that two-year period, customers in Broome County paid artificially high prices. Taylor Garbage has issued an apology in regards to this incident, and Bert Adams Disposal, along with majority owner Elbert Adams, have pleaded guilty in Broome County Court to violating the Donnelly Act. The company will pay \$850,000 in criminal penalties, and Adams will pay \$75,000. Adams and employee Christopher Kline will also each pay an additional \$37,5000 in criminal penalties.

❖ NWRA Establishes Colorado Chapter

April 13, 2018 – The National Waste & Recycling Association (NWRA) has established a chapter in Colorado, strengthening its presence in the Rocky Mountain state. The chapter has elected Scott Hutchings of Waste Management, Inc. as its chairman and Bryce Isaacson of Western Disposal Services, Inc. as its vice chairman, and it will focus on flow control, permitting, local ordinances and Technologically Enhanced Naturally Occurring Radiative Materials (TENORM) legislation. NWRA’s Sunbelt regional office is exploring expanding the group to a multi-state chapter to include New Mexico and Wyoming, as these states share similar legislative topics as Colorado.

❖ Covanta Environmental Solutions to Provide Collection Kiosks for Pilot Pharmaceutical Take Back Program in New York

April 19, 2018 – Covanta Environmental Solutions, a leading provider of environmental services to the healthcare sector and a wide range of other industries, has been awarded a contract for the New York Department of Environmental Conservation’s (DEC) Pilot Pharmaceutical Take Back Program. The five-year program, which commences this month, allows for the installation of kiosks at 250 retail pharmacies, hospitals and long-term care facilities across New York State where consumers will be able to return unused and expired medications for safe and secure disposal. Covanta Environmental Solutions is responsible for the collection and disposal from participating locations. Collected medications will be processed at Covanta’s energy-from-waste facilities, which are uniquely suited for the DEC’s initiative as they have a long history of handling the secure destruction of pharmaceutical and controlled drug substance waste regulated by the Drug Enforcement Agency. Since 2010, Covanta has disposed of more than 4 million pounds of unused and expired medications and pharmaceuticals from take back programs.

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