

Market Overview

Indices Performance (% change)

	January 2020	LTM		January 2020	LTM
S&P 500	(0.3%)	19.1%	NASDAQ	1.4%	22.5%
Dow Jones Industrial Average	(1.7%)	12.5%	Russell 3000	(2.8%)	7.1%

Source: Federal Reserve; Bank of St. Louis

Environmental Services Market Overview

Environmental Services Movers and Losers (largest % changes in the month in January)

Quest Resource Holding	12.4%	Perma-Fix Environmental Services	(18.7%)
Casella Waste Systems	11.2%	EEI	(14.7%)
Waste Management	6.8%	Fuel Tech	(13.1%)
Waste Connections	6.1%	Heritage-Crystal Clean	(9.6%)
Republic Services	6.0%	US Ecology	(6.7%)

Source: PitchBook

Publicly Traded Company Performance: Solid Waste

(\$ in millions, except per share data)

Company	Share Price 01/31/2020	% 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	Gross	EBIT	EBITDA		
Waste Management	WM	\$121.70	98.8%	\$51,630	\$62,075	4.0x	14.9x	23.6x	29.8x	16.9x	38.1%	17.0%	27.1%	2.5x
Republic Services	RS	\$95.05	98.6%	\$30,335	\$39,162	3.8x	13.5x	22.0x	28.3x	17.2x	38.7%	17.1%	28.0%	3.1x
Waste Connections	WCN	\$96.31	97.3%	\$25,395	\$29,353	5.6x	18.4x	34.7x	45.0x	26.9x	40.8%	16.0%	30.2%	2.5x
Advanced Disposal	ADSW	\$32.95	99.8%	\$2,946	\$4,808	3.0x	13.5x	58.3x	NA	43.5x	NA	5.1%	22.1%	5.2x
Casella Waste Systems	CWST	\$51.19	98.5%	\$2,446	\$3,050	4.2x	25.9x	91.9x	319.9x	30.3x	31.0%	4.2%	15.9%	5.3x
Mean				\$22,550	\$27,690	4.1x	17.2x	46.1x	105.7x	27.0x	37.2%	11.9%	24.6%	3.7x
Median				\$25,395	\$29,353	4.0x	14.9x	34.7x	37.4x	26.9x	38.4%	16.0%	27.1%	3.1x
High				\$51,630	\$62,075	5.6x	25.9x	91.9x	319.9x	43.5x	40.8%	17.1%	30.2%	5.3x
Low				\$2,446	\$3,050	3.0x	13.5x	22.0x	28.3x	16.9x	31.0%	4.2%	15.9%	2.5x

Source: PitchBook

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

LTM = Last Twelve Months

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Publicly Traded Company Performance: Special Waste

(S in millions, except per share data)

Company	Share Price 01/31/2020	% 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	Gross	EBIT	EBITDA		
Stericycle	SRCL	\$62.68	94.1%	\$5,712	\$8,827	2.6x	NA	NA	NA	21.2x	36.4%	(11.6%)	(3.6%)	(25.9x)
Clean Harbors	CLH	\$82.22	93.4%	\$4,589	\$5,986	1.8x	11.7x	28.4x	51.4x	21.1x	30.4%	6.2%	15.1%	2.7x
Darling Ingredients	DAR	\$27.13	91.7%	\$4,441	\$6,177	1.8x	11.1x	26.6x	41.7x	19.2x	22.1%	6.9%	16.6%	3.0x
US Ecology	ECOL	\$54.01	80.3%	\$1,193	\$1,545	2.5x	11.8x	18.3x	23.8x	20.8x	29.8%	13.6%	20.9%	2.7x
Sharps Compliance	SMED	\$4.47	85.0%	\$72	\$77	1.6x	36.1x	58.1x	74.5x	NA	30.2%	2.3%	5.8%	1.9x
Perma-Fix Environmental Services	PEFI	\$7.40	74.1%	\$89	\$93	1.5x	76.0x	NA	NA	15.7x	19.3%	(0.2%)	1.9%	3.9x
Mean				\$2,683	\$3,784	2.0x	29.3x	32.9x	47.9x	19.6x	28.0%	2.9%	9.5%	(1.7x)
Median				\$2,817	\$3,765	1.8x	11.8x	27.5x	46.6x	20.8x	30.0%	4.2%	10.4%	2.7x
High				\$5,712	\$8,827	2.6x	76.0x	58.1x	74.5x	21.2x	36.4%	13.6%	20.9%	3.9x
Low				\$72	\$77	1.5x	11.1x	18.3x	23.8x	15.7x	19.3%	(11.6%)	(3.6%)	(25.9x)

Source: PitchBook

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

LTM = Last Twelve Months

Publicly Traded Company Performance: Industrial Services

(S in millions, except per share data)

Company	Share Price 01/31/2020	% 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	Gross	EBIT	EBITDA		
Covanta	CVA	\$14.98	81.5%	\$1,969	\$4,511	2.4x	12.5x	32.0x	374.5x	6.4x	NA	7.5%	19.2%	7.0x
Heritage-Crystal Clean	HCCI	\$28.35	87.0%	\$657	\$708	1.7x	19.4x	36.9x	50.6x	22.3x	17.7%	4.6%	8.7%	1.4x
CECO Environmental	CECE	\$7.60	77.2%	\$268	\$321	0.9x	11.5x	19.4x	27.1x	NA	32.9%	4.8%	8.0%	1.9x
Cypress Energy Partners	CELP	\$8.76	86.4%	\$106	\$226	0.6x	8.0x	9.9x	11.2x	6.5x	13.1%	5.7%	7.1%	2.5x
EI	EI	\$0.16	73.9%	\$171	\$361	0.8x	NA	12.1x	13.9x	8.0x	13.6%	6.8%	9.7%	NA
Fuel Tech	FTFK	\$0.83	27.0%	\$20	\$8	0.2x	NA	NA	NA	NA	40.4%	(6.2%)	(3.9%)	7.2x
Quest Resource Holding	QRHC	\$2.45	79.0%	\$38	\$42	0.4x	20.4x	67.9x	NA	NA	18.2%	0.6%	2.0%	2.0x
Mean				\$461	\$882	1.0x	14.4x	29.7x	95.5x	10.8x	22.6%	3.4%	7.3%	3.7x
Median				\$171	\$321	0.8x	12.5x	25.7x	27.1x	7.3x	18.0%	4.8%	8.0%	2.3x
High				\$1,969	\$4,511	2.4x	20.4x	67.9x	374.5x	22.3x	40.4%	7.5%	19.2%	7.2x
Low				\$20	\$8	0.2x	8.0x	9.9x	11.2x	6.4x	13.1%	(6.2%)	(3.9%)	1.4x

Source: PitchBook

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

LTM = Last Twelve Months

Select M&A and Capital Raising News

❖ Waste Connections Announces Completed Acquisition Activity

January 7, 2020 - Waste Connections, Inc. recently closed acquisitions during the fourth quarter of 2019 with approximately \$130 million in annualized revenue. The completed acquisitions include a new market entry solid waste collection and recycling acquisition in South Central Pennsylvania and tuck-in acquisitions to existing operations in Alaska, Illinois, New York and Tennessee.

❖ GFL and American Waste Announce Merger

January 10, 2020 - Toronto-based GFL Environmental Inc. and American Waste have entered into a definitive agreement for GFL to acquire American Waste's solid and liquid waste businesses in Michigan and Pennsylvania. The closing of the transaction is subject to customary regulatory approvals and is expected to be completed in February.

❖ Valet Living Acquires Trojan Waste Solutions

January 13, 2020 - Valet Living, a nationally recognized full-service amenities provider to the multifamily housing industry, announced the acquisition of doorstep waste and recycling provider Trojan Waste Solutions. The acquisition of the Texas-based amenities provider, offering doorstep waste and recycling pickup, common area cleaning and pet waste disposal, adds more than 10,000 apartment homes to the Valet Living portfolio primarily in San Antonio and Austin, Texas. Trojan Waste Solutions also serves communities in Florida, North Carolina and the Dallas/Fort Worth area.

❖ Meridian Waste Closes Acquisition in Raleigh, North Carolina

January 14, 2020 - Meridian Waste, an integrated, non-hazardous solid waste services company, has closed on the purchase of the equity interests of Shotwell Landfill, Inc.; Shotwell Transfer Station II, Inc.; Capitol Waste Transfer, LLC; Capital Recycling, LLC; and Morrisville Transfer Station LLC (collectively, the Shotwell companies) throughout the greater Raleigh, North Carolina marketplace. The terms of the stock purchase agreement remain private. This marks Meridian Waste's first acquisition within North Carolina and the 11th acquisition since the Company transitioned to private stock under the ownership of Warren Equity Partners in April 2018. The acquired assets include the Shotwell Construction and Demolition Debris (C&D) Landfill, the Shotwell Transfer Station II (C&D), the Capitol Waste Transfer Station (C&D) and the municipal solid waste (MSW) transfer station known as the Morrisville Transfer Station (under construction). The purchase also includes disposal and commercial contracts associated with the disposal facilities as well as rolling stock assets.

❖ Arcapita Acquires Waste Harmonics

January 14, 2020 - Global investment firm Arcapita has acquired a controlling interest in Waste Harmonics, a technology-enabled facility services company that delivers a comprehensive suite of waste management solutions to blue-chip clients throughout North America. Founded in 2001, Waste Harmonics is one of the largest managed waste services companies in the U.S. and delivers waste collection services across all 50 states, Canada, Puerto Rico and Guam through a network of more than 5,000 vendors. Waste Harmonics operates across various business segments and has developed a platform that provides a comprehensive range of solutions. These capabilities include consolidated waste collection and coordination, recycling and sustainability optimization, remote equipment monitoring, smart equipment rental, compliance reporting and waste stream auditing. The Company's offerings are designed to improve service levels, reduce costs and optimize waste stream management.

❖ WCA Acquires CARDS Little Rock Division

January 21, 2020 - WCA Waste Corporation (WCA), a vertically integrated, non-hazardous solid waste services company, announced its expansion in the state of Arkansas with the acquisition of the Little Rock Division of Central Arkansas Recycling and Disposal Services, LLC (CARDS). The acquisition grows WCA's family by 11 employees and approximately 200 customers in the Little Rock, Arkansas market. CARDS provides roll-off and construction and demolition disposal services to customers in Little Rock and surrounding areas. WCA has fully taken over the operation and services of the Little Rock Division of this entity.

❖ AMCS Acquires TRUX Route Management Systems

January 29, 2020 - AMCS, a global supplier of integrated software and vehicle technology for the waste, recycling and resource industries, has acquired TRUX Route Management Systems Inc., a Canada-based software solutions provider for the waste industry, for an undisclosed amount. Since the establishment of TRUX in 1990, the Company set the standard for waste software for the Canadian market and gained wide acceptance with leading waste companies throughout North America, noted AMCS. Today, TRUX is considered one of the leading and most respected waste software companies in North America. In total, the acquisition will result in having 1,000 customers across North America, which now represents more than 40 percent of AMCS' global business.

Recent Industry News

❖ Oregon Enacts Plastic Bag Ban

January 2, 2020 - Oregon kicked off 2020 by enacting a statewide ban on plastic bags. The measure, House Bill 2509, also aims to train shoppers to bring their own reusable bags by requiring that retailers charge 5 cents for each paper or reusable bag they provide. The rule does not apply to plastic bags used for produce, bulk items or hardware, and restaurants may still provide paper bags for free.

❖ Connecticut Plans \$750K Worth of Landfill Improvements

January 6, 2020 - Environmental officials in Connecticut plan to use \$750,000 for “anti-pollution controls and improvements” at five closed landfills once operated by the former Connecticut Resources Recovery Authority (CRRA). Last month, the state Bond Commission allocated the new funding for improvements at all five landfills that would include remediating erosion, replacing methane recovery systems, upgrading wastewater systems and other related projects.

❖ Wastequip Names CEO Bryant Chairman of the Board

January 10, 2020 - Wastequip, a North American manufacturer of waste handling equipment, has appointed Marty Bryant as chairman of its board of directors. Bryant has served as Wastequip’s CEO since 2012 and has been a member of its board of directors since that time. Prior to joining Wastequip, Bryant held positions as senior advisor at Centerbridge Partners, president of light vehicle products at Dana Corporation, vice president of operations at Webasto Roof Systems and engineering manager at Toyota. During his tenure at Dana Corporation, Bryant managed a \$5 billion operation and successfully merged four previously separate divisions spanning 15,000 employees at 82 locations in 23 countries. He has also overseen multiple acquisitions and divestitures throughout his career.

❖ California: First State to Mandate Universal Composting

January 23, 2020 – Three years after California’s Short-Lived Climate Pollutant Reduction Strategy (SB 1383) was signed into law, formal regulations were adopted by the California Department of Resources Recycling and Recovery (CalRecycle) at a public meeting on January 21 and will be transmitted to the Office of Administrative Law for final codification. As a part of a multipronged strategy, CalRecycle will be responsible for reducing organic waste disposal by 75 percent and recovering 20 percent of edible food that is currently thrown away by 2025.

❖ Carbios Announces INSA Alliance

January 23, 2020 – Carbios, a French green chemistry company based in Clermont-Ferrand, France, announced a strategic alliance with INSA Toulouse through the internationally recognized laboratory Toulouse Biotechnology Institute (TBI), a mixed research unit of INSA Toulouse, INRA and CNRS. Carbios, along with TBI, is establishing a research center for enzymatic engineering, which will be focused on plastic recycling and biosynthesis. This laboratory, unprecedented in the world of enzymatic engineering and dedicated to plastic applications, will be inaugurated on January 28 at INSA Toulouse.

❖ NYC’s CWZ Law and the Impact on Private Haulers

January 30, 2020 – Liverpool Carting Co., a trash collection company that serves roughly 500 businesses in New York City’s Upper East Side, recently splurged on a new refuse truck, putting the Company in debt. The \$450,000 truck is the third in the Company’s fleet and the owner of Liverpool didn’t have much of a choice due to the city’s newly passed commercial waste zone law (CWZ). The CWZ legislation will divide the city into at least 20 commercial waste zones, each served by up to three private haulers. Under the legislation, private carters will need to meet baseline standards to be eligible for a zone, and their proposals will be judged based on their plans to improve safety, recycling, pollution and job quality. The Bill also caps the number of private carters in any zone at three.

The Chicago Corporation Overview

- Highly regarded investment bank with a long, distinguished history.
Focused on middle market private companies owned by families and entrepreneurs with revenue up to \$250 million.
Over 35 experienced professionals with broad industry experience.
Providing traditional investment banking services as well as broader financial advisory services to assist clients facing issues of growth, capital structure, ownership transition, shareholder value and liquidity.
All we do is advise clients on corporate finance matters. We don't trade or underwrite securities, provide wealth management services, or engage in principal investing.

Why the Chicago Corporation?

Deep Environmental Services Experience

Trusted Advisors to Business Owners

Two Managing Directors on Every Engagement

Seasoned Bankers with 200+ Years of Combined Experience

Best-in-Class Unbiased Advice

Exceptional Transaction Execution



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Sources include waste360.com, PitchBook and various publicly available news publications.

Additional information is available upon request.