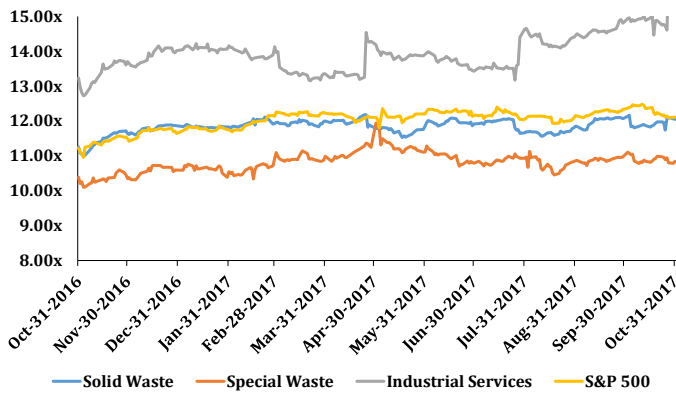


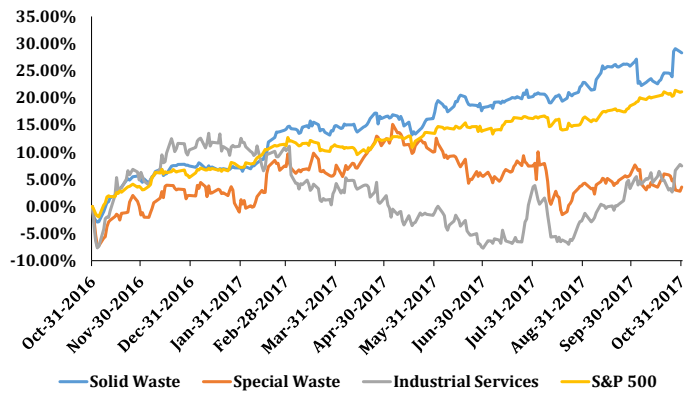
Trash Talk

An Environmental Services Newsletter

Environmental Services LTM TEV/EBITDA



Environmental Services LTM Share Price (Shown as % change)



Indices Performance (% change)

| | October 2017 | LTM | | October 2017 | LTM |
|-----------|--------------|-------|---------------------|--------------|-------|
| S&P 500 | 1.8% | 21.1% | Solid Waste | 2.0% | 28.3% |
| Dow Jones | 3.6% | 28.9% | Special Waste | (2.0%) | 3.6% |
| NASDAQ | 3.2% | 29.6% | Industrial Services | 4.0% | 7.4% |

(Source: CapitalIQ)

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

| | | | |
|--------------------------------------|------|--------------------------------|---------|
| Covanta Holding Corporation | 8.2% | Meridian Waste Solutions, Inc. | (21.6%) |
| Waste Management, Inc. | 5.0% | Sharps Compliance Corp. | (13.1%) |
| Industrial Services of America, Inc. | 4.9% | US Ecology, Inc. | (11.3%) |
| Darling Ingredients Inc. | 4.1% | Fuel Tech, Inc. | (10.5%) |
| CECO Environmental Corp. | 3.6% | Heritage-Crystal Clean, Inc. | (10.1%) |

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Select Public Trading Statistics (as of 10/31/2017)

Solid Waste:

(\$ in millions, except per share data)

| Company | Share Price 10/31/2017 | % 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 | \$82.17 | 99.2% | \$35,680 | \$45,012 | 3.1x | 11.7x | 18.0x | 26.3x | 25.5x | 23.4x | 37.7% | 17.9% | 27.4% | 2.4x |
| Republic Services, Inc. | RSG | \$65.07 | 96.9% | \$21,913 | \$29,660 | 3.1x | 10.9x | 18.2x | 33.4x | 27.6x | 25.6x | 38.3% | 16.7% | 27.8% | 2.8x |
| Waste Connections, Inc. | WCN | \$70.67 | 95.2% | \$18,632 | \$22,105 | 4.9x | 15.5x | 27.3x | 53.7x | 35.9x | 32.6x | 41.6% | 17.9% | 31.5% | 2.4x |
| Advanced Disposal Services, Inc. | ADSW | \$24.92 | 96.9% | \$2,202 | \$4,125 | 2.9x | 10.4x | 31.3x | NM | 54.0x | 46.7x | 37.0% | 8.4% | 26.6% | 5.0x |
| Casella Waste Systems, Inc. | CWST | \$18.46 | 96.5% | \$776 | \$1,276 | 2.2x | 11.3x | 24.7x | NM | 33.5x | 29.2x | 32.7% | 9.0% | 19.4% | 4.2x |
| Meridian Waste Solutions, Inc. | MIRDN | \$1.00 | 7.4% | \$10 | \$98 | 2.4x | NM | NM | NM | NM | NM | 33.6% | (30.9%) | (3.1%) | (68.5x) |
| Mean | | | | \$13,202 | \$17,046 | 3.1x | 12.0x | 23.9x | 37.8x | 35.3x | 31.5x | 36.8% | 6.5% | 21.6% | -8.6x |
| Median | | | | \$10,417 | \$13,115 | 3.0x | 11.3x | 24.7x | 33.4x | 33.5x | 29.2x | 37.3% | 12.9% | 27.0% | 2.6x |
| High | | | | \$35,680 | \$45,012 | 4.9x | 15.5x | 31.3x | 53.7x | 54.0x | 46.7x | 41.6% | 17.9% | 31.5% | 5.0x |
| Low | | | | \$10 | \$98 | 2.2x | 10.4x | 18.0x | 26.3x | 25.5x | 23.4x | 32.7% | -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 10/31/2017 | % 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 | \$70.85 | 80.5% | \$6,046 | \$8,874 | 2.5x | 11.4x | 16.5x | NM | 17.6x | 17.5x | 44.0% | 14.3% | 20.8% | 3.6x |
| Clean Harbors, Inc. | CLH | \$53.51 | 86.8% | \$3,058 | \$4,346 | 1.5x | 10.5x | 34.3x | NM | NM | NM | 29.7% | 4.3% | 14.2% | 3.1x |
| Darling Ingredients Inc. | DAR | \$18.25 | 97.9% | \$3,005 | \$4,730 | 1.3x | 9.7x | 24.1x | 35.9x | 81.7x | 26.6x | 21.4% | 3.7% | 12.0% | 3.8x |
| US Ecology, Inc. | ECOL | \$47.55 | 85.3% | \$1,038 | \$1,308 | 2.7x | 12.9x | 21.9x | 39.6x | 34.7x | 27.9x | 29.1% | 12.2% | 20.9% | 2.7x |
| Sharps Compliance Corp. | SMED | \$4.14 | 72.3% | \$66 | \$64 | 1.7x | NM | NM | NM | NM | NM | 31.1% | (0.4%) | 3.6% | (1.9x) |
| Perma-Fix Environmental Services, Inc. | PESI | \$3.76 | 86.3% | \$44 | \$48 | 0.9x | 22.8x | NM | NM | NM | NM | 21.4% | (3.6%) | 5.5% | (0.4x) |
| Mean | | | | \$2,210 | \$3,228 | 1.8x | 13.4x | 24.2x | 37.7x | 44.7x | 24.0x | 29.4% | 5.1% | 12.8% | 1.8x |
| Median | | | | \$2,021 | \$2,827 | 1.6x | 11.4x | 23.0x | 37.7x | 34.7x | 26.6x | 29.4% | 4.0% | 13.1% | 2.9x |
| High | | | | \$6,046 | \$8,874 | 2.7x | 22.8x | 34.3x | 39.6x | 81.7x | 27.9x | 44.0% | 14.3% | 20.9% | 3.8x |
| Low | | | | \$44 | \$48 | 0.9x | 9.7x | 16.5x | 35.9x | 17.6x | 17.5x | 21.4% | -3.6% | 3.6% | (1.9x) |

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 10/31/2017 | % 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 | \$16.10 | 97.6% | \$2,103 | \$5,038 | 2.9x | 17.9x | 68.1x | NM | NM | NM | 29.5% | 4.2% | 16.3% | 10.5x |
| Heritage-Crystal Clean, Inc | HCCT | \$19.55 | 88.0% | \$447 | \$443 | 1.2x | 10.5x | 18.5x | 22.5x | 34.0x | 28.8x | 25.4% | 6.7% | 11.8% | (0.1x) |
| CECO Environmental Corp. | CECE | \$8.77 | 58.9% | \$304 | \$397 | 1.0x | 8.1x | 12.2x | NM | 19.3x | 15.6x | 33.4% | 6.4% | 10.7% | 2.5x |
| Cypress Energy Partners, L.P. | CELP | \$7.28 | 51.0% | \$87 | \$178 | 0.6x | 11.0x | 17.3x | 20.2x | 19.8x | 18.5x | 12.1% | 3.4% | 5.4% | 7.2x |
| Ecology & Environment, Inc. | EEL | \$11.75 | 90.0% | \$50 | \$40 | 0.4x | 7.1x | 8.7x | 37.3x | NM | NM | 44.6% | 4.6% | 5.6% | (2.1x) |
| Fuel Tech, Inc. | FTEK | \$0.91 | 62.0% | \$22 | \$15 | 0.4x | NM | NM | NM | NM | NM | 35.9% | (31.1%) | (24.0%) | 0.7x |
| Quest Resource Holding Corporation | QRHC | \$1.20 | 40.0% | \$18 | \$23 | 0.1x | NM | NM | NM | (15.7x) | NM | 9.1% | (3.6%) | (1.2%) | (2.3x) |
| Industrial Services of America, Inc. | IDSA | \$1.75 | 52.2% | \$14 | \$22 | 0.5x | 26.5x | NM | NM | NM | NM | 6.4% | (0.8%) | 3.6% | 3.9x |
| Mean | | | | \$381 | \$70 | 0.9x | 13.5x | 25.0x | 26.7x | 14.4x | 21.0x | 24.5% | -1.3% | 3.5% | 2.5x |
| Median | | | | \$68 | \$109 | 0.5x | 10.8x | 17.3x | 22.5x | 19.6x | 18.5x | 27.4% | 3.8% | 5.5% | 1.6x |
| High | | | | \$2,103 | \$5,038 | 2.9x | 26.5x | 68.1x | 37.3x | 34.0x | 28.8x | 44.6% | 6.7% | 16.3% | 10.5x |
| Low | | | | \$14 | \$15 | 0.1x | 7.1x | 8.7x | 20.2x | -15.7x | 15.6x | 6.4% | -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

❖ Stella Environmental Acquires Rackleff Enterprises

October 5, 2017 – Houston-based Stella Environmental Holdings, Inc., a Hidden Harbor Capital Partners portfolio company that provides transfer station management and municipal waste logistics services, has acquired Statesboro, Georgia-based Rackleff Enterprises, LLC, expanding its geographic footprint, diversifying its customer base and strengthening its existing facility management, hauling and loading capabilities.

❖ Private Investment Firm Buys Glass Recycler Strategic Materials

October 18, 2017 – Littlejohn & Co. LLC, a private investment firm based in Greenwich, Connecticut, has signed a definitive agreement to acquire Strategic Materials Inc., an environmental services company and glass recycler, from Willis Stein & Partners and Vision Capital. Financial terms of the transaction were not disclosed. Headquartered in Houston, Strategic Materials recovers and processes post-consumer and post-industrial glass in North America. Strategic Materials operates a network of 47 facilities across the U.S., Canada and Mexico and serves end markets, including glass packaging, fiberglass insulation, flat glass and highway safety bead markets, with a rapidly expanding presence in the air blast abrasives industry.

❖ VLS Recovery Services Acquired by Aurora Capital Partners

October 18, 2017 – Private equity firm Aurora Capital Partners has completed its acquisition of VLS Recovery Services LLC, a provider of specialty cleaning and waste processing services. Terms of the transaction were not disclosed. Headquartered in Hockley, Texas, VLS provides specialty cleaning services of railcars and large industrial containers for difficult-to-clean products including chemicals, hardened materials and pressurized gases. The company also provides customized processing solutions for non-hazardous waste, including waste-to-energy and other landfill diversion programs, solidification of liquid waste, recycling, and wastewater treatment. The company operates out of facility locations in Texas, Georgia, Tennessee and South Carolina.

❖ Watje Family to Buy Wayne Engineering, Rebrand as Curbtender

October 23, 2017 – The Watje family has announced their pending acquisition of the assets of Wayne Industrial Holdings LLC, parent company to Wayne Engineering and Wayne Sweepers. The father and son team, backed by a group of strategic investors, expects to acquire the assets of Wayne as part of a new company named Curbtender Inc. The Watje family has been in discussions with Wayne's workforce regarding the transition and have been ongoing since early October and operations are expected to continue as normal through the transition. Representatives from Curbtender and United Automobile Workers (UAW) Local 838 expect the collective bargaining agreement with Wayne Industrial Holdings to be assumed by the new company. Curbtender Inc. will be the only U.S.-based refuse truck manufacturer represented by the UAW. The Wayne name has been used in conjunction with manufacturing refuse trucks for over 50 years. The Wayne brand is best known for having pioneered the automated side loader market with the introduction of the Curbtender product in the 1970s. Last November, BYD, an electric vehicle manufacturer, and Wayne Engineering, a manufacturer of chassis-mounted rear and side loaders, launched a fully electric refuse truck.

❖ Estre Ambiental to Acquire Three Independent Waste Management Companies in Brazil

October 24, 2017 – Estre Ambiental S.A., has agreed to acquire three waste management companies in Brazil. All three transactions are expected to be completed in early 2018. In August, Estre entered into a definitive agreement to combine with Boulevard Acquisition Corp. II in a transaction that will result in a new publicly listed combined company Estre Ambiental Inc., (ESI) which will have its shares traded on NASDAQ in the U.S. As of August, the company estimated it would have an anticipated initial enterprise value of approximately \$1.1 billion. Estre provides collection, transfer, recycling and disposal services to more than 31 million people in seven Brazilian states, prior to the new acquisitions. Currently Estre's landfill operations, which are focused around 13 strategically located landfills, dispose of approximately 6.0 million tons of waste annually. In aggregate, the three companies expected to be acquired operate 229 collection vehicles and one landfill asset, servicing 97 clients. With expected combined annual revenue of approximately \$67 million and Adjusted EBITDA of \$13.5 million in 2017, the three companies collectively are expected to contribute an incremental \$9.5 million to ESI's projected 2018 Adjusted EBITDA. Estre officials believe that the average purchase multiple of approximately 3.5x Adjusted EBITDA (pre-synergies) further validates the contemplated acquisitions and Estre's inorganic growth thesis. They also believe the acquisitions will position the company to expand in three distinct, strategically-important geographic areas. Estre has some well-known figures from the U.S. waste industry on its board. In September, the company named three independent members to its board, including Advanced Disposal CEO Richard Burke and Robert C. "Bob" Boucher Jr., CEO and president of Wheelabrator Technologies. In October, John J. Morris, Jr., senior vice president of field operations for Waste Management, also was named as an independent member of Estre's board of directors.

❖ EnviroSolutions Acquires Con-Serv Industries

October 25, 2017 – EnviroSolutions Inc. has acquired Northern Virginia-based Con-Serv Industries (CSI), a privately owned and operated solid waste collection and recycling company. Since 1985, CSI has been providing commercial, industrial and residential services to businesses, institutions, government facilities, municipalities and homeowner associations throughout Northern Virginia. It currently services more than 2,700 customers.



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Select Industry News

❖ SWANA Launches New Online Certification Testing Platform

October 3, 2017 – The Solid Waste Association of North America (SWANA) has launched its new online testing platform, which allows solid waste industry professionals to take certification exams remotely. The online testing function is available for all ten of SWANA's industry training courses, allowing professionals to forego traveling to a SWANA testing center and to take the exam at their own location via computer, tablet or mobile device. The online testing platform will give professionals the option to take exams at any time and offers 48-hour pass/fail notification, making it easier to fit job development and training into their schedules.

❖ Rubicon Global and TerraCycl Join Forces to Offer Zero Waste Solutions

October 5, 2017 – Rubicon Global and TerraCycle are teaming together to offer customers a variety of waste reduction services aimed at advancing zero waste solutions. This partnership will facilitate a broader spectrum of non-landfill solutions to customers for virtually every waste stream—from the most common recyclables such as mixed recycling and cardboard to stubborn streams such as candy wrappers, batteries and cigarette butts. Rubicon and TerraCycle will have access to each other's customer bases to offer new solutions, fill in the service gaps and develop innovative go-to-market strategies.

❖ Healthcare Waste Institute Appoints New Chair, Vice Chair

October 9, 2017 – The Healthcare Waste Institute (HWI), an industry group within the National Waste & Recycling Association (NWRA) with a mission to facilitate responsible healthcare waste management, has named Selin Hoboy, vice president of legislative and regulatory affairs at Stericycle, Inc., as its new chair, effective January 1, 2018. Rudy Vingris, healthcare business development manager for Waste Management, will continue serving as the institute's vice chair. Hoboy, an active member of the HWI, has worked in the environmental health and safety industry for more than 20 years. She has been employed with Stericycle for 17 years, and she is responsible for managing legislative and regulatory affairs. Vingris has been involved extensively in hazardous waste management for more than 25 years. At Waste Management, Vingris manages the pharmaceutical and hazardous waste management program that provides services to healthcare customers who manage and dispose of all pharmaceutical and chemical wastes.

❖ Former Rizzo Environmental Services CEO Reaches Plea Deal for Corruption Chargers

October 13, 2017 – In late 2016, concerns were raised about waste hauler Rizzo Environmental Services after allegations that the company paid bribes to Clinton, Michigan, Township Trustee Dean Reynolds for preferential treatment on a contract were released. In February 2017, Macomb County, Michigan, officials Brett Harris and Christopher Craigmiles pled guilty to taking bribes from an undercover agent in exchange for their votes on what they thought was a future Rizzo waste contract. In June 2017, Charlie "Chuck" Rizzo Jr., the former CEO of Rizzo Environmental Services, was indicted on nearly two dozen charges for bribery and fraud in connection with garbage contracts in Clinton, Macomb and Chesterfield Townships. Now, following a court filing this week, Chuck Rizzo and his father Charles Rizzo are expected to plead guilty to the bribery and fraud charges next month in federal court.

❖ Veolia Opens Electronics & Lamp Recycling Facility in Ontario, Canada

October 25, 2017 – Veolia is expanding its electronics and lamp recycling capabilities in Canada with a new, 5,000-sq.-ft. recycling facility located in Pickering, Ontario, in the greater Toronto area. While the plant's primary purpose is to provide lamp-recycling services for customers across Ontario and other Canadian provinces, other electronics and mercury-bearing wastes can also be handled for customers out of this facility as appropriate. Veolia currently provides industrial cleaning and hazardous materials management services from this location. Provincial regulations will ban lamps from landfill disposal by 2020. Veolia's facility is designed to help manage these wastes within Canada.

❖ Former Coach CEO and Chairman Lew Frankfort Joins RTS' Board of Directors

October 27, 2017 – Lew Frankfort, the former chairman and CEO of Coach, Inc., has joined Recycle Track Systems' (RTS) board of directors. Frankfort will serve as a resource and advisor as RTS expands after its nearly \$12 million Series A funding this past July.

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