



INDUSTRY INSIGHTS

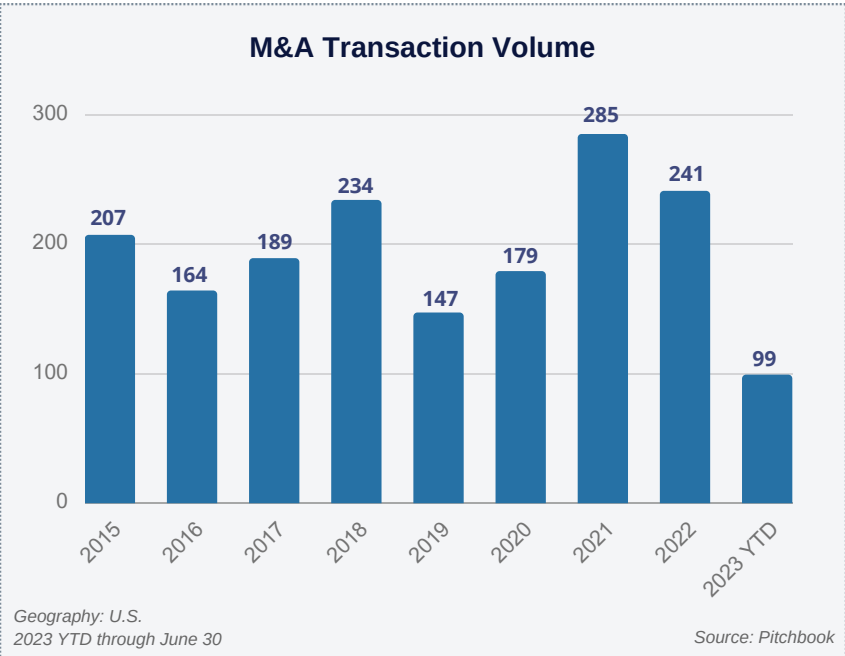
Environmental Services – A Deep Dive into Waste, Recycling and Sustainable Solutions

In this edition of our Industry insights, we will be focusing on recent developments and trends in the environmental services sector in the middle market. The environmental services industry—which includes companies that provide services such as waste management, environmental ancillary services and related products (inspection, preservation, remediation and testing), recycling, and closed loop models—has seen steady growth in recent years, driven by increased regulatory requirements and a growing attention towards environmental preservation and of the importance of sustainability, which, in turn, have created larger markets for sustainability-focused models.

M&A ACTIVITY REMAINS RESILIENT

After fed rate hikes starting Spring 2022, the environmental service industry continues to move on M&A and is on pace to slightly exceed avg. M&A activity from 2015-2020, based on M&A through June 2023. Although at a slower pace than 2021 and 2022, we continue to see M&A driven by operating leverage from consolidation, demand for sustainability-focused models, and emerging niche offerings. Labor and supply chain challenges, exacerbated by the pandemic, have made it harder for smaller operators in a fragmented market to keep up and driven many towards exits. Plus, increasing numbers of private equity buyers and investment funds have recently entered and will continue to show interest in this recession-resilient market where there are ample opportunities to deploy additional capital via greenfield and add-on acquisitions. The combination of new institutional capital and valuations remaining somewhat elevated would support continued M&A activity, even in a higher cost-of-capital environment.

Many M&A transactions were pushed off in 2020 due to changing recycling and waste streams in the early stages of COVID and attributed to elevated levels of M&A in 2021, alongside low cost of capital in the capital markets. 2022 remained a robust year for M&A exceeding the prior 7 year avg. by 14% as continued macro trends and institutional capital interest in non-cyclical industries support continued consolidation. In 2023, we observed continued high levels of M&A activity were present in Q1 with pace slowing down towards the end of Q2.



HIGHLIGHTS FROM MAJOR ACQUIRERS IN WASTE

Public Companies in the solid waste industry spent an estimated \$6.27 billion on M&A in 2022. Although the waste industry has a long history of consolidation from public companies, new entrants by private equity have provided additional horsepower in capital backing to continue consolidation in the Middle Market. Republic Services' \$2.2 billion purchase of US Ecology was the largest deal included in 2022 totals. Below, we highlight a few of the most active strategic buyers in the waste space and their related transactions.



GFL Environmental (NYS: GFL)

completed 9+ transactions since February 2022

- GFL Environmental (CO + NM Asset) – June 2023
- Waste Disposal Services – April 2023
- UMO collection and Recycling Business – February 2023
- Vertex Energy – February 2023
- Whitley Environmental – December 2022
- Bunn Box – December 2022
- Strouse Roll-Offs – September 2022
- Sprint Waste Services – May 2022
- Red Creek Waste Services – February 2022



WASTE CONNECTIONS
Connect with the Future®

Waste Connections (NYS: WCN)

completed 8+ transactions since February 2022

The company spent \$2.3 billion on acquisitions in 2022, all of which were in the solid waste sector and included both franchise and competitive markets. Leadership expects another year of outsized acquisition activity in 2023, likely with more small and mid-sized acquisitions.

- Waste Disposal Services – April 2023
- UMO collection and Recycling Business – February 2023
- Vertex Energy – February 2023
- Whitley Environmental – December 2022
- Bunn Box – December 2022
- Strouse Roll-Offs – September 2022
- Sprint Waste Services – May 2022
- Red Creek Waste Services – February 2022



Republic Services (NYS: RSG)

completed 8+ transactions since February 2022

- Deep South Containers – May 2023
- North State Bioenergy – March 2023
- Morning Disposal – December 2022
- C6 Disposal Systems – December 2022
- JRM Hauling and Recycling Services – May 2022
- Archaea Energy – May 2022
- US Ecology – May 2022
- River City Waste Services – February 2022

HIGHLIGHTS FROM MAJOR ACQUIRERS IN WASTE (CONT.)



Waste Connections (NYS: WCN)

completed 7+ transactions since February 2022

- GFL Environmental assets (TN) – May 2023
- Specialized Environmental Technologies – February 2023
- Avangard Innovative – December 2022
- Debrand Services – November 2022
- Green Earth – September 2022
- Rays Trash Service – September 2022
- Tailwater Capital – January 2022



Lakeshore Recycling Systems

(backed by Macquarie Asset Management)

completed 15+ transactions since January 2022

- J & J Rubbish – January 2023
- Michiana Recycling and Disposal – January 2023
- Modern Waste Systems – January 2023
- Bulldog Disposal – December 2022
- Lee's Trash Service – August 2022
- Doty Sanitization Service – August 2022
- AirFresh Industries – August 2022
- JL Hurt – August 2022
- Lakes Disposal Services – May 2022
- The Country Plumber – May 2022
- Ditch & Associates – May 2022
- Sunshine Sanitation - April 2022
- Auburn Disposal – March 2022
- Junoll Services – March 2022
- Matejka Recycling – January 2022



Covanta Holding

(backed by EQT)

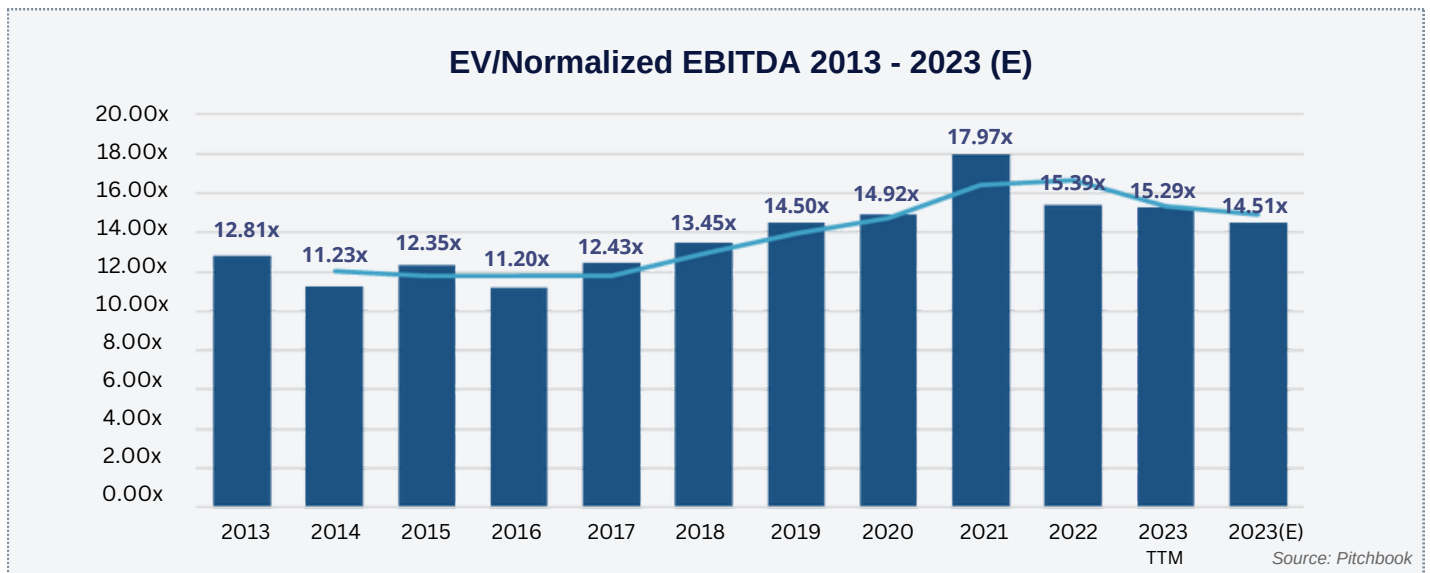
completed 9+ transactions since March 2022

- Circon Environmental – April 2023
- Global Remediation Services – January 2023
- Globalcycle – January 2023
- Buffalo Fuel – December 2022
- Frontier Fibers – December 2022
- SGS Recovery – December 2022
- BIOLOGIC Environmental – August 2022
- Miller Environmental – July 2022
- Covanta Green (GIG) – March 2022

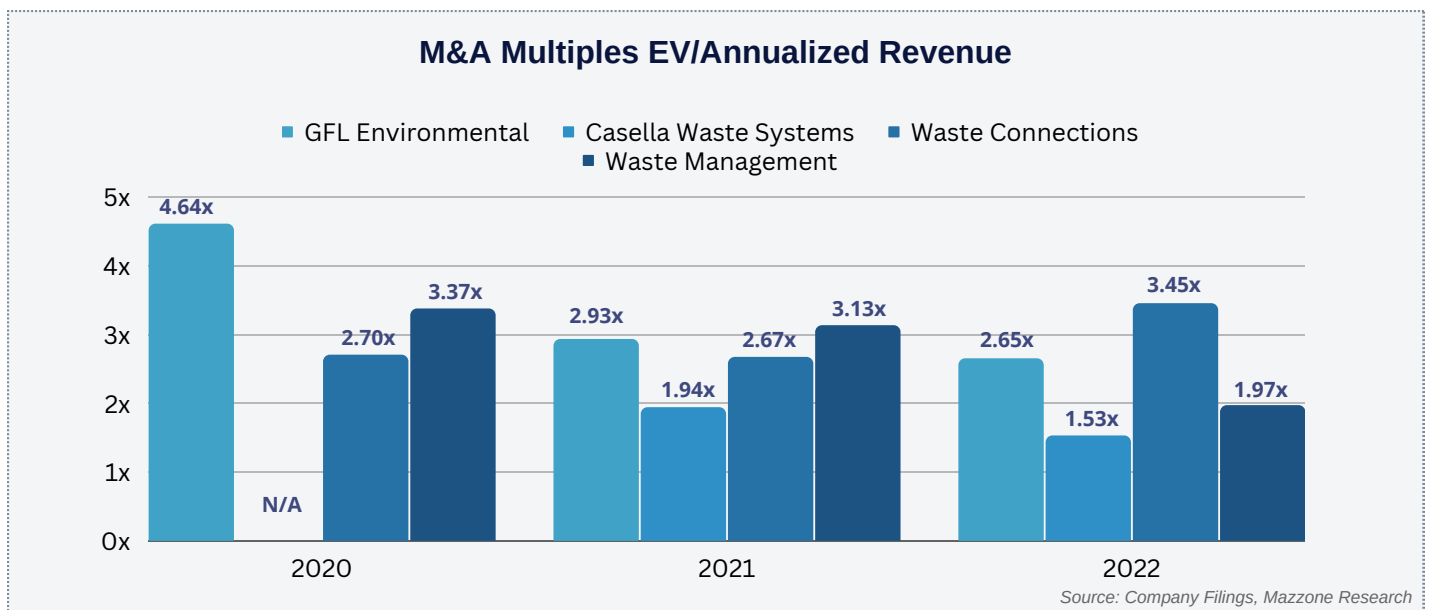
VALUATIONS SOFTENING FROM HIGHS BUT REMAIN ELEVATED

EV/EBITDA valuation multiples on the peer group index rose consistently since 2016 and peaked in 2021 at nearly 18x EV/EBITDA. At the end of 2022 and early 2023, EV/Multiples remain elevated at ~15x EV/EBITDA, well above the 2013-2022 average of 13.6x EV/EBITDA. This supports the overall trend of middle market transactions trading in the range of 10x-12x EV/EBITDA on average over the last few years as they remain accretive for the buyers.

The companies which were acquired at the high-end of this range and above are attributed to a combination of the following value driving factors: integrated models, diversified revenue streams, remaining long-life of asset base (e.g. 15+ year remaining landfill life), leading positions in attractive MSAs and differentiated offerings. In competitive sale processes, we have seen deals trade as high as 15x and higher for “A” assets. Most of these cases, these transactions have been quite large, in the \$1B+ range; however, there are select “A” assets and situations in the Middle Market reaching this premium result.



Based on annualized revenues, EV/Revenue valuations on M&A transactions with public companies remained strong in the face of rising cost of capital. On average, EV/Revenue multiples on these transactions have averaged ~2.5x revenue. We continue to see companies which control multiple components of the supply chain valued at premiums versus those focusing on one leg of the stool.



VALUATIONS SOFTENING BUT REMAIN ELEVATED (CONT.)

In the waste space specifically, long-remaining useful life landfill assets continue to see the highest EV/EBITDA valuation multiples in comparison to pure hauling companies. Pure-play transfer station models are generally being valued in between. Although there are many other drivers to valuation, scale of exiting companies continue to matter. Incremental increases in valuations exist as operators move above 500 tons per day (TPD), 1,000 TPD and 2,500 TPD.

Environmental Services Peer Group as of June 2023

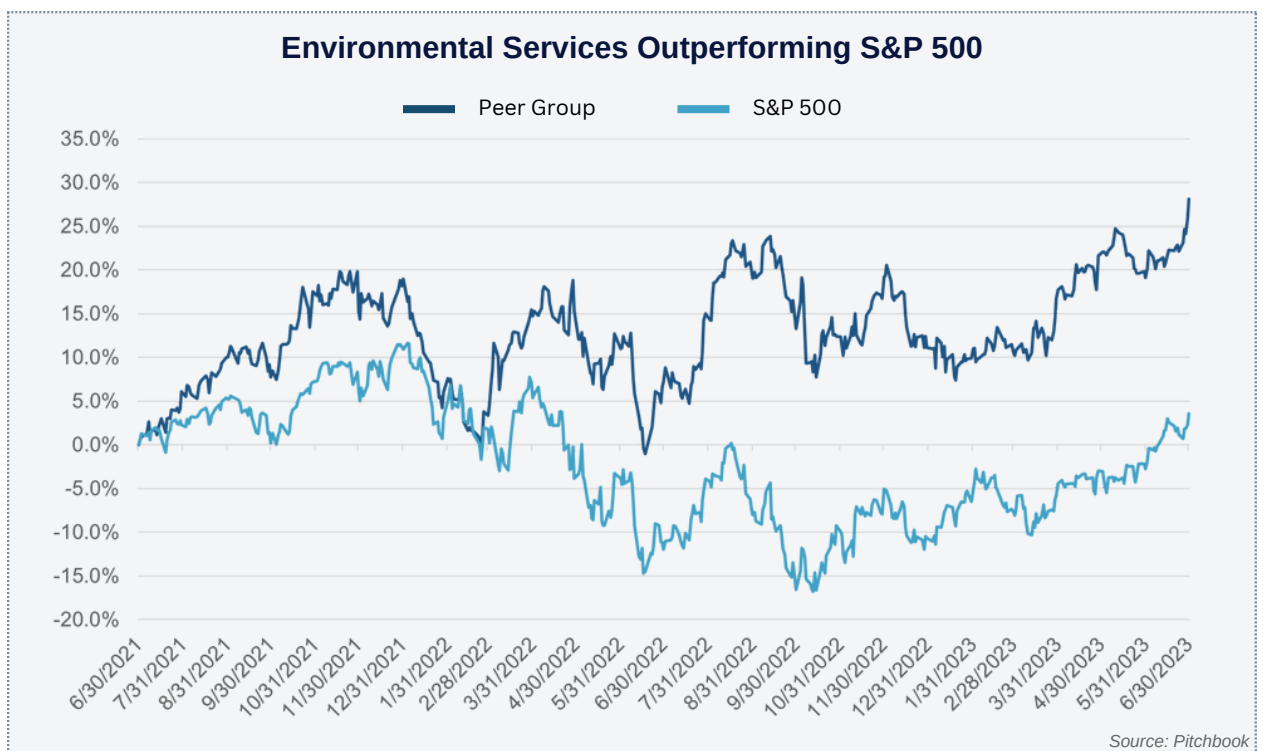
Company	Ticker	% 52 Wk High	Market Cap	Enterprise Value	LTM Revenue	LTM EBITDA	EBITDA %	EV/Rev	EV/EBITDA	Rev (3YR-CAGR)
Casella Waste Systems	NAS:CWST	90%	\$5,009	\$5,604.8	\$1,113.7	\$250.3	22.5%	5.0x	22.4x	13.5%
Clean Harbors	NYS:CLH	97%	\$8,346	\$10,559.0	\$5,304.9	\$1057.0	19.9%	2.0x	10.0x	15.0%
GFL Environmental	NYS:GFL	97%	\$13,592	\$20,907.0	\$5,406.9	\$1,364.7	25.2%	3.9x	15.3x	5.9%
Heritage-Crystal Clean	NAS:HCCI	92%	\$896	\$1,079.6	\$763.4	\$162.9	21.3%	1.4x	6.6x	18.7%
Montrose Environmental	NYS:MEG	73%	\$1,254	\$1,536.9	\$541.2	\$69.3	12.8%	2.8x	22.2x	6.4%
Republic Services	NYS:RSG	99%	\$46,690	\$58,767.8	\$14,122.4	\$4,065.9	28.8%	4.2x	14.5x	10.8%
Stericycle	NAS:SRCL	79%	\$4,166	\$6,046.9	\$2,724.7	\$457.2	16.8%	2.2x	13.2x	4.3%
Waste Connections	NYS:WCN	93%	\$35,303	\$42,309.9	\$7,466.1	\$2,285.4	30.6%	5.7x	18.5x	10.7%
Waste Management	NYS:WM	95%	\$67,902	\$83,028.8	\$19,929.0	\$5,560.0	27.9%	4.2x	14.9x	8.8%

NEAR-TERM OUTLOOK LOOKS STRONG AND STABLE

Overall, revenue has remained strong amongst public companies in the industry over the last two years. A major driver to this extraordinary revenue growth has been fueled by acquisitions; however, core pricing driven by higher costs—including fuel, labor and other factors—have contributed to revenue growth. It is expected for many of these dynamics to subside in 2023 and 2024; however, analyst estimates of 6%-7% revenue growth remains ahead of GDP growth expectations for the next two years. Although there have been impacts on cost and diminishing earnings in 2H 2022 from lowering recycled commodities, gross margin has remained stable and is expected to expand 20bps in 2023 and another 70 bps in 2024.



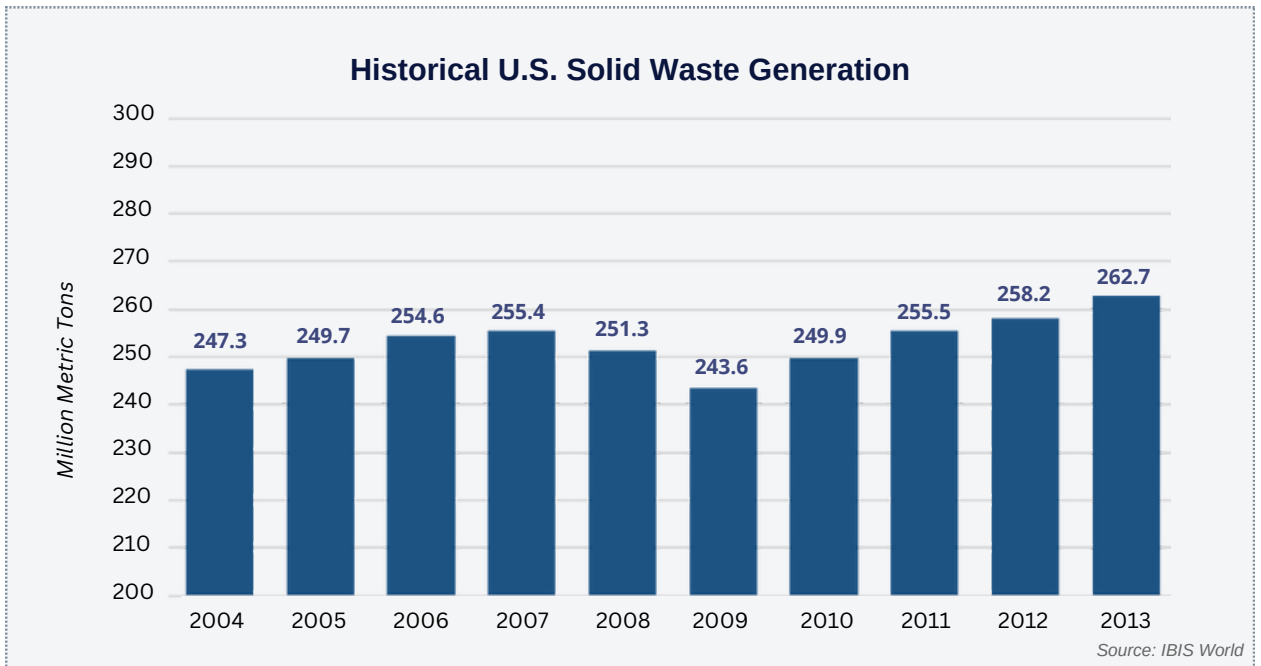
The Environmental Services Peer Group has outperformed the S&P 500 Index over the last 24 months by over 20%, highlighting the stability of the industry in comparison to other markets.



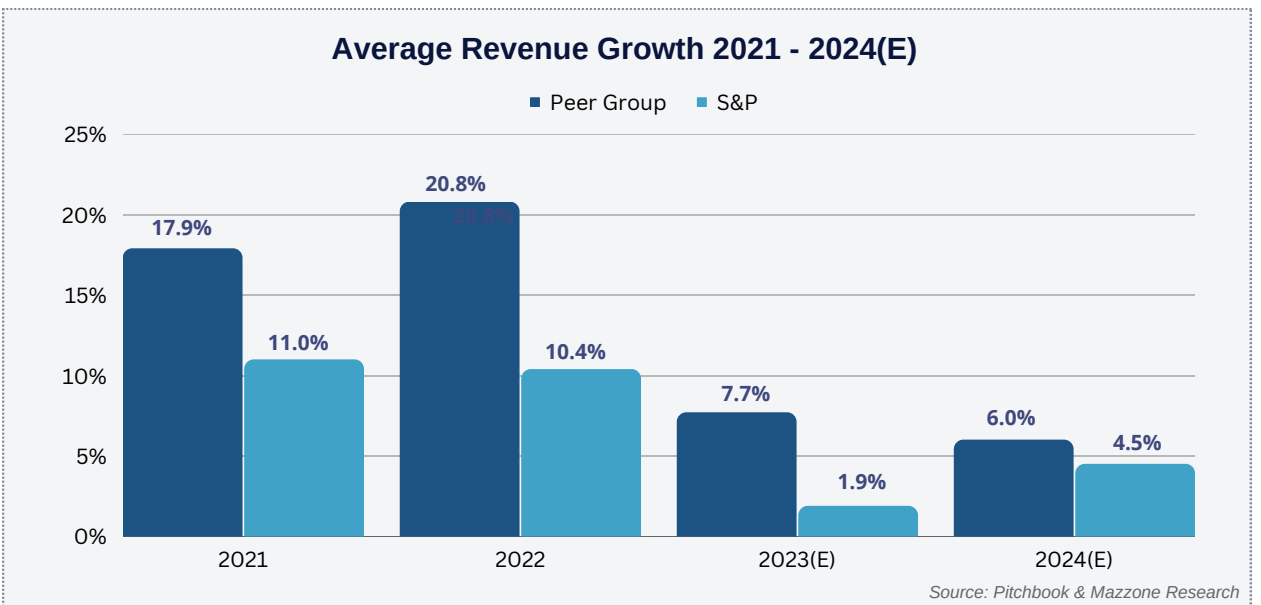
UNDERLYING TRENDS DRIVING M&A

WASTE & RECYCLING IS A SAFE HAVEN IN UNCERTAIN TIMES

In the state of economic downturns, most industries are impacted. However, waste, recycling and environmental service needs are essential services required in all communities regardless of economic conditions. Waste and recycling are relatively stable in times of uncertainty and are considered “recession-resistant” for this reason. Even in the Great Recession, solid waste generation dropped only 4.6% from 2007 to 2009. As other industries are more impacted by uncertainty and cyclical dynamics, the environmental service industry will continue to attract strong interest from private equity and other institutional investors.



Analyzing the top public waste companies, the Waste Peer Group is expected to grow at 7.7% in 2023 and 6.0% and 2024. In comparison, the S&P 500 index is expected to grow at 1.9% in 2023 and 4.5% in 2024. This further emphasizes the overall positive market outlook in comparison to operators in other industries.



GROWING DEMAND FOR MONITORING, MITIGATION, AND REMEDIATION TECHNOLOGY

Provided the limitation of available resources, governments and businesses are looking for more efficient ways to reduce, reuse, and recycle waste as well as reduce the environmental impacts of their footprint. We see solutions addressing this demand attracting high interest in the market whether it may be advancements in specialty materials for environmental protection, emerging equipment technology for recycling and leachate treatment, carbon and closed loop material tracking and certification, or carbon recapture technologies.

RECYCLED COMMODITY PRICING STABILIZING BUT DOWN FROM 2022 HIGHS

OCC prices dramatically declined ~60% from Q3 to Q4 which has impacted revenue for recyclers in the later half of 2022 through Q1 2023. OCC prices have stabilized and are starting to uptick slightly here in 2023 which affected most waste and recycling companies. In general, other recycled materials have also seen declines as well but not as dramatically as the OCC market. Most operators have seen prices rebound slightly early in 2023 but do not expect these recycled commodity prices to reach peak 2022 levels again. Integrated players who are well-positioned with their feedstock are better positioned for the long-term to weather these commodity swings.

POLYMER RECYCLING INFRASTRUCTURE CATCHING UP WITH DEMAND

The U.S. EPA released the “National Strategy to Prevent Plastic Pollution” which will seek to eliminate the release of plastic and other waste from land-based sources into the environment by 2040. Combining federal initiatives and stakeholder’s commitments via the Plastics Pact and the Ellen Macarthur Foundation’s goals set forth by brands, recycling players are making major commitments in North America. A few examples include Waste Management’s investment in Avangard, Republic’s 4 plant expansion plan by 2024, and Nexus Circular’s latest January 2023 \$150 million capital raise for its chemical recycling platform. Companies that provide differentiated resource management, landfill diversion, and provide cost effective decarbonization are well-positioned to benefit from this trend.

Interested in receiving more information about the Environmental Services Industry?

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FOCUS SUBSECTOR: VALET WASTE

The post Great Recession period of increased multi-family development with waste services to this market “Valet waste” has become increasingly attractive. Integrated major waste players have entered and subsequently exited this market, leaving an open canvas for consolidation by players in this niche market. Players in this market generally (1) focus around waste, recycling, and bulk services or (2) take a one-stop approach to serving multi-family (e.g. “turn work,” flooring, pet waste, maintenance, etc).

Considered a top amenity sought by residents, multi-family services like valet waste will attract investors as a higher percentage of people are renting now than at any time since 1965 – and this trend isn’t going to slow down anytime soon. With nearly 20% of the total U.S. population living in apartments, the National Apartment Association reports that America needs 4.6 million new apartments by 2030 or it will face a shortage (Source: CNBC). This is further supported by multi-family building trends. From 1990 to 2011, multi-family housing unit starts represented ~20% of all housing units started in the U.S. Since 2011, multi-family units have represented 32% of new units started in the U.S., and over the last 12 months, represented over 38% of all units started (Source: FRED)

VALET WASTE SECTOR FOCUS PLAYERS



In February of 2021, Valet Living was acquired by Private Equity group GI Partners from Ares Private Equity Group and Harvest Partners to support its continued geographic and service expansion. Valet Living pioneered the doorstep waste and recycling industry and has broadened its service offering to include turns, maintenance, pet solutions, fitness, and other app-enabled resident services. Founded in 1995 and now the #1 player in valet waste, Valet Living has achieved double-digit organic growth every year since its inception and currently performs more than 415 million service events annually across 1.6 million apartment homes in 40 states. Since 2020, Valet Living has acquired 10 companies, with 6 of those transactions in 2022.



Ally Waste is based in Mesa, Arizona, and is another provider of valet trash, bulk waste and recycling services catering to multi-family housing complexes, student housing and senior living facilities. Ally Waste raised significant capital from RF Investment Partners in December of 2022 due to the rapidly growing industry and opportunity for organic and inorganic growth. Ally Waste acquired National Trash Valet (Scottsdale, AZ) in 2021 and subsequently closed 6+ transactions in the area. Ally Waste is emerging as a major #2 player in the sector.

FEATURED RECYCLING DEALS

MECHANICAL

Waste Management Makes Major Move into Plastic Recycling

Waste Management acquired a majority interest in Avangard Innovative, a leading U.S. recycler of LDPE and other resins, for an undisclosed amount on September 08, 2022. The acquisition helps Waste Management quickly scale operations, maximize source feedstock, and meet the rise in demand for environmental additives, such as recycled plastic resin. Avangard will operate as Natura PCR—an independent company expected to scale and grow recycling capacity to produce an estimated 400 million pounds per year of post-consumer resin (PCR) in five years. Through Natura PCR, WM expects to deliver new recycling capabilities for its customers and provide circular solutions for films and clear plastic wrap used commercially, such as plastic stretch wrap for pallets, furniture film, grocery bags and potentially shrink wrap around food and beverage containers.

Closed Loop Services Launches Circular Services

Closed Loop Partners, an institutional PE group focused on closed loop and recycling models, launched Circular Services in November of 2022, consolidating 12 facilities from portfolio companies across seven states with the plan to become the largest privately owned recycling company in North America. Brookfield Renewables has committed up to \$700 million for the new company. The new company will offer a range of recycling services for packaging, textiles, electronics, and organics by bringing together existing Closed Loop portfolio companies including Sims Municipal Recycling, Balcones Resources, Retrievr and HomeBiogas.

CHEMICAL

Braskem Joins Nexus Circular Party

Braskem, the largest polyolefins producer in the Americas, announced investment in Nexus Circular, a commercial leader in advanced recycling that converts landfill-bound plastics into circular feedstocks used in the production of sustainable virgin plastics. Using a proprietary advanced recycling technology, Nexus converts a range of hard-to-recycle plastics, especially landfill bound plastic films into its circular feedstocks which can then be converted back into virgin plastics (fully circular). Nexus has optimized the technology to create a highly efficient and economic system providing cost-effective, superior quality and environmentally friendly products for its partners and customers.

After successfully moving through earlier raises and accelerating development of its pilot facility, Nexus Circular raised \$150m of venture funding led by Cox Enterprises in January of 2023. Besides Braskem, other strategic investors include Printpack. The funds will be used to support efforts to deliver on recycled-plastic commitments by accelerating the expansion of the market-leading advanced recycling process also the team and partners can more rapidly execute the next phase of growth, accelerating the circular economy for plastics.

CHEMICAL CONT.

Covanta Enters Deal with Kinderhook to Acquire Circon

April 3, 2023, Covanta, backed by EQT Environmental, agrees to acquire Circon from Kinderhook in the most transformative and largest acquisition in its history, significantly expanding Covanta's geographic footprint and environmental service offerings. The addition of Circon brings in more than 600 new employees and 2,500 customers.

The addition of Circon's services specifically doubles Covanta's wastewater footprint, grows its engineered fuels business five-fold, and catapults Covanta into a leader in the growing alternative fuels field for kilns. Since over 90% of Circon's waste processed is repurposed in some way, the deal accelerates private equity-backed Covanta's sustainable practices. The initial acquisition of Covanta by EQT Infrastructure in 2021 included provisions requiring Covanta to increase its sustainably processed waste by 2.5% and its recycled or reused waste by 25% by 2025 or face financial penalties. This further emphasizes the demand and premium companies demand for maintaining sustainability focused business models.

ORGANIC

Ridgemont-backed NorthStar Recycling Acquires Sonoco's S3 Division

Northstar Recycling Company, LLC ("Northstar"), a national leader in sustainability-oriented managed waste and recycling solutions and a portfolio company of Ridgemont Equity Partners, announced the acquisition of Sonoco Sustainability Solutions ("S3"), another asset-light managed service provider of customized waste diversion programs that operated over the last 17 years as a division of global packaging leader Sonoco (NYSE: SON). Both Northstar and S3 serve multi-facility manufacturers and distributors across the food, consumer packaged goods, and industrial sectors with a centralized solution to manage and divert industrial waste streams into beneficial reuse applications.

Vanguard Renewables

Acquired by BlackRock in July 2022 for \$700m, Vanguard renewables is an Operator of an organic waste management company designed to solve organic waste disposal challenges and support farmers. The company uses an anaerobic digestion process to convert the energy potential in farm and food waste into renewable electricity or renewable natural gas, enabling farmers to protect the environment by reducing greenhouse gas emissions and preserving legacy farms for future generations.

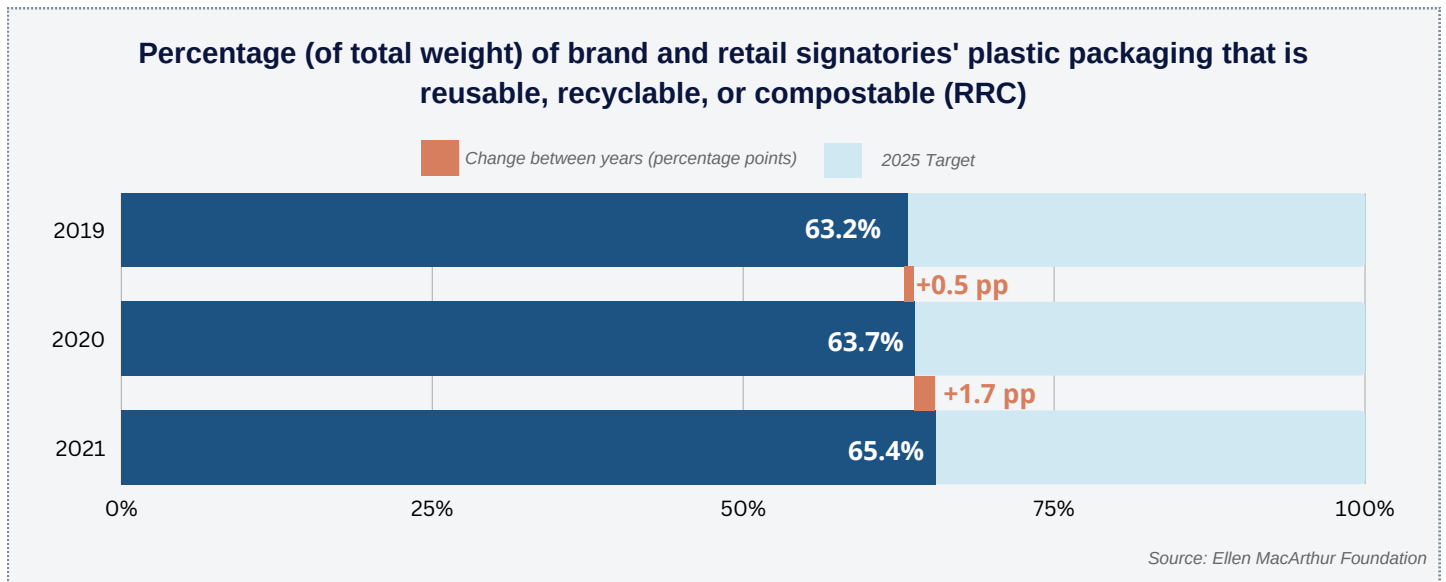
SUSTAINABLE PACKAGING

An estimated 82.2 million tons of containers and packaging are generated annually in the US. This includes packaging made from paper, glass, plastics, and other materials, and much of it is single-use plastics like soda bottles and plastic grocery bags. The Environmental Protection Agency (EPA) estimates that 37.9 million tons, or 46.1%, of packaging are either incinerated or sent to a landfill, presenting a significant market opportunity for companies that can introduce environmentally friendly alternatives at competitive prices. Novel materials and circular economy models are emerging to offer sustainable alternatives to plastic packaging. Sustainable packaging products are biodegradable, compostable, returnable, and even edible depending on the material.

HOT TRENDS IN RECYCLING

Packaging Design

Mono-material packaging design is the new hot trend to eliminate hard to recycle packaging designs and allow current infrastructure to cost-efficiently recycle packaging. Most major CPGs fall short (<50% of packaging is recyclable) and are seeking cost-effective easy-to-recycle packaging designs. Europe's new tax incentives are only accelerating these trends, incentivizing both CPGs and packaging companies to invest in and adopt new technologies. Many major CPG brands have committed to make 100% their packaging reusable, recyclable, or compostable by 2025. Progress has been slow up to 2021 but anecdotally is picking up steam in 2023. See the below chart provided by the Ellen MacArthur Foundation, which exhibits the large gap and opportunity for both brands and their packaging partners in meeting this goal.



Securing and Utilizing Feedstock

There is an imbalance of demand for PCR resin from CPGs and available feedstock. Increasing recyclability of current packaging formats should increase feedstock as well as developing FDA certified PCR applications. There continues to be investment in infrastructure to address the non-recycled plastics universe (wash systems, film recycling assets and other advancements) We continue to see companies with differentiated technologies or strong-feedstock relationships are going to continue to demand high valuations in the coming years.

U.S. SUSTAINABLE PACKAGING SUPPLY CHAIN ASSESSMENT: PAPER & PLASTIC

Paper

Paper's perception by consumers as a sustainable, renewable solution is strongest out of any material.

Overall, the at home recycling infrastructure for paper is established in the U.S. with stronger recovery rates in comparison to plastic.

In a post COVID-19 world, producers have concern over replacing sorted office paper (SOP) and coated book stock (CBS) fibers.

Although paper is 100% recyclable, the amount of energy required to recycle fiber products is higher than recyclable plastic and other products thus having clean energy alternatives is important for paper converters and mills.

Barrier product solutions, which are more readily digestible in recycling wastestream, need to be developed and further commercialized to allow paper to compete with plastic in certain categories.

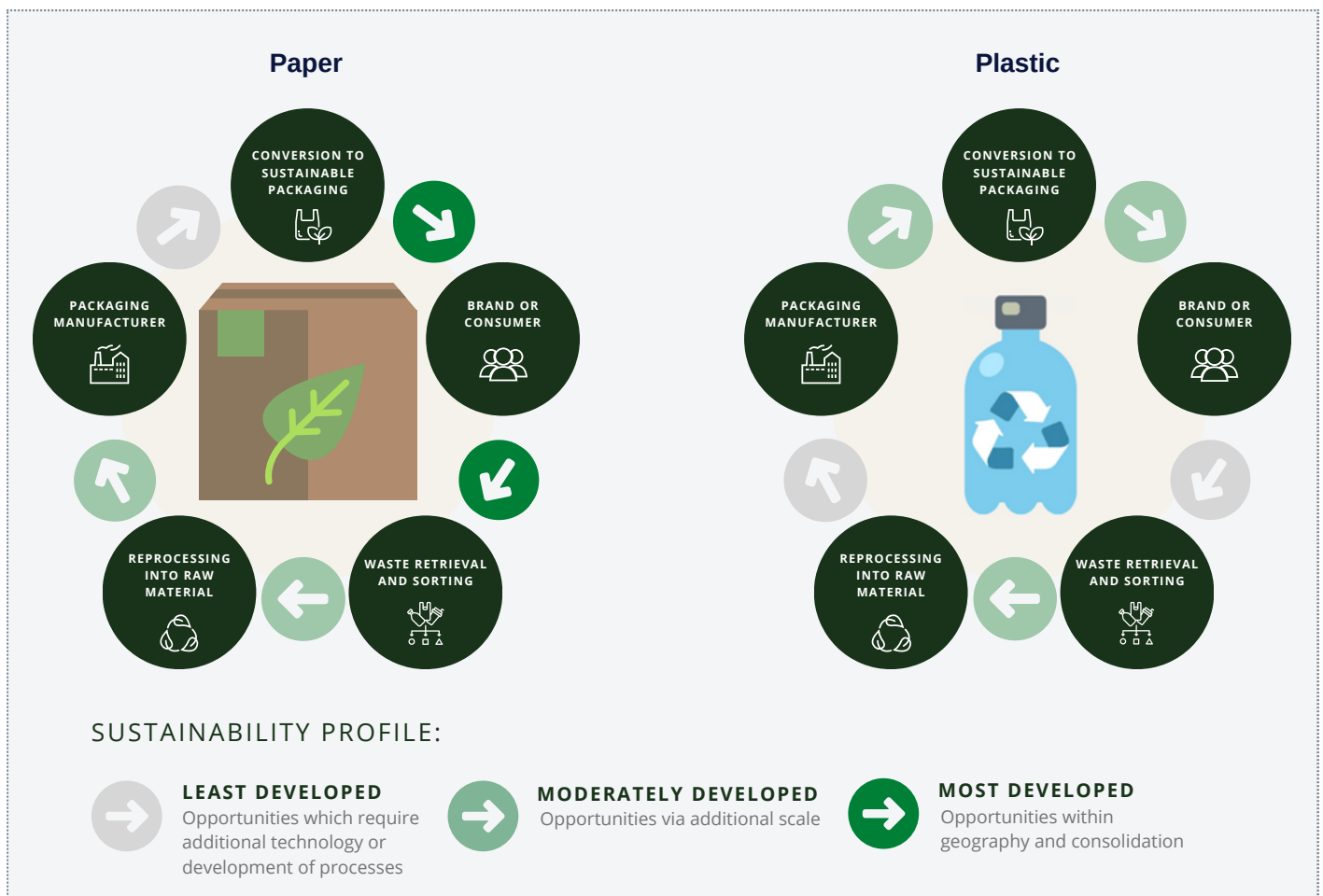
Plastic

In comparison to paper, U.S. consumers deem recycled plastics as only slightly less sustainable as recycled fibers.

Currently, there are limitations of scale and capacity in the U.S. infrastructure for plastics, especially outside of PET. Recovery rates remain relatively low in comparison to Europe and other more developed markets.

Where recyclable plastics have been retrieved and sorted, there is a somewhat limited but quickly growing number of reprocessors making resin from plastic waste. To maneuver around poor retrieval of plastics, reprocessors are creating closed loop systems.

With the limitations in upstream infrastructure, there is a limited level of 3rd party suppliers and availability of quality recycled plastic resins. Operators are gaining sophistication and technology capabilities to convert an increased % of recycled plastic in packaging.




ABOUT MAZZONE

As a leading investment bank in the middle market, we have a deep understanding of the environmental services market and a track record of successfully completing transactions in this sector. If you are an environmental services company looking to raise capital, explore strategic options, or sell your business, we would be happy to discuss how we can help you achieve your goals.

RECENT REPRESENTATIVE TRANSACTIONS



Advised Mativ (NYSE: MATV) on the the sale of the Filtrexx, Inc. product division to MKB Company, a portfolio company of Kurtz Bros., Inc.



Advised UMI on its sale to the Dupps Company



Advised Replast on the sale of its business to PreZero



Advised CWI Enterprises on the financing and acquisition of an integrated landfill and waste operation



CONTACT

Mazzone & Associates, Inc. is a mergers and acquisitions advisory firm with offices in Atlanta and Chicago. We provide comprehensive transaction services for middle market companies, private equity groups, and individuals buying and selling companies, raising capital, and structuring debt. With over a century of combined corporate finance experience, the professionals at Mazzone utilize their investment banking and operational backgrounds to maximize the value of your hard work and deliver closed transactions.

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