

## The Henry Fund

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# Waste Connections (WCN)

September 19, 2022

## Industrials – Environmental Services

Stock Rating

Hold

### Investment Thesis

Waste Connections is one of the leading municipal solid waste collection companies in the United States. We have their revenue growing by a CAGR of 5.98% over the forecast horizon. They have set a precedent to have the ability to pass on costs, and consistently grow through acquisitions. Although this trend might momentarily slow down, they are a low beta stock and a great company to maintain a position.

### Drivers of Thesis

- Revenue is forecasted to grow by a CAGR of 5.98% over the forecast horizon. This is reasonable given realistic management guidance and consolidation trends.
- They have a proven capability to pass on rising costs. Increasing solid-waste prices by 8.8% over the recent year. This has allowed them to withstand persistent inflation.
- Environmental Services is an economic staple which is a safe place to store value for the Henry Fund during times of market uncertainty.

### Risks to Thesis

- Cost of capital continues to rise at a rate so high that it slows consolidations, and capital projects much faster than expected.
- Miscalculated synergies and debt from recent acquisitions causing financial distress.
- Inflation does not budge which causes the Federal Reserve to push the labor market/economy into an episode of desperation.

### Target Price

\$140 - 150

|                   |       |
|-------------------|-------|
| Henry Fund DCF    | \$146 |
| Henry Fund DDM    | \$81  |
| Relative Multiple | \$136 |

### Price Data

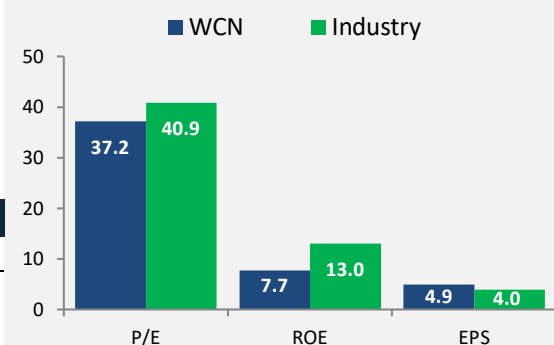
|                      |             |
|----------------------|-------------|
| Current Price        | \$145       |
| 52wk Range           | \$114 - 148 |
| Consensus 1yr Target | \$183       |

### Key Statistics

|                         |          |
|-------------------------|----------|
| Market Cap (M)          | \$36,619 |
| Shares Outstanding (M)  | \$258.6  |
| Institutional Ownership | 93.8%    |
| Beta                    | 0.77     |
| Dividend Yield          | 0.6%     |
| Est. 5yr Growth         | 12.8%    |
| Price/Earnings (TTM)    | 42.2     |
| Price/Earnings (FY1)    | 37.6     |
| Price/Sales (Current)   | 5.6      |
| Price/Book (Current)    | 5.3      |

### Profitability

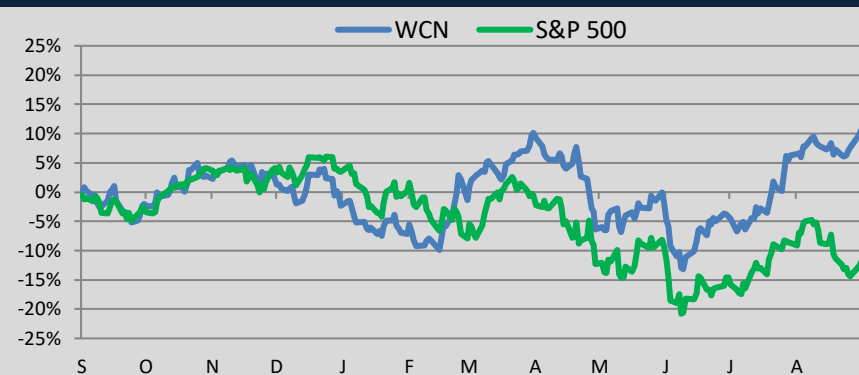
|                        |        |
|------------------------|--------|
| Operating Margin       | 16.9%  |
| Profit Margin          | 10.05% |
| Return on Assets (TTM) | 3.9%   |
| Return on Equity (TTM) | 7.7%   |



### Earnings Estimates

| Year           | 2019   | 2020   | 2021   | 2022E  | 2023E  | 2024E  |
|----------------|--------|--------|--------|--------|--------|--------|
| EPS            | \$2.15 | \$1.78 | \$2.37 | \$3.24 | \$3.85 | \$4.37 |
| HF est. growth |        |        |        | 34.61% | 16.59% | 12.53% |

### 12-Month Performance

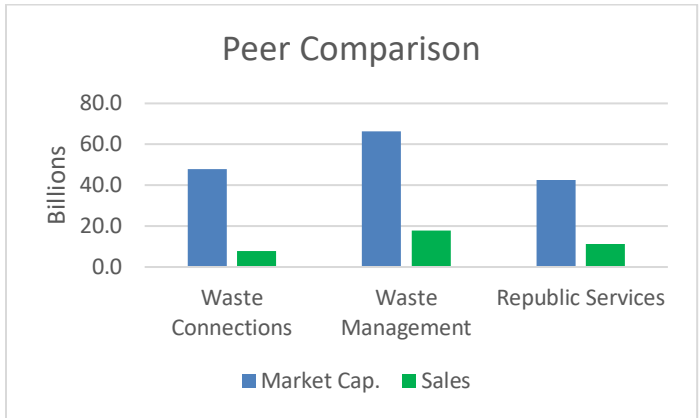


### Company Description

Waste Connections is the third largest non-hazardous waste company in North America. Operating in 43 states of the U.S. and six provinces in their Canadian line of business. They collect, transfer, and dispose of trash for customers of all types. Including residential, commercial, and industrial locations. They also provide resource recovery services such as recycling and renewable fuel generation. They separate themselves in the industry by focusing on high market share areas where exclusive contracts are feasible.

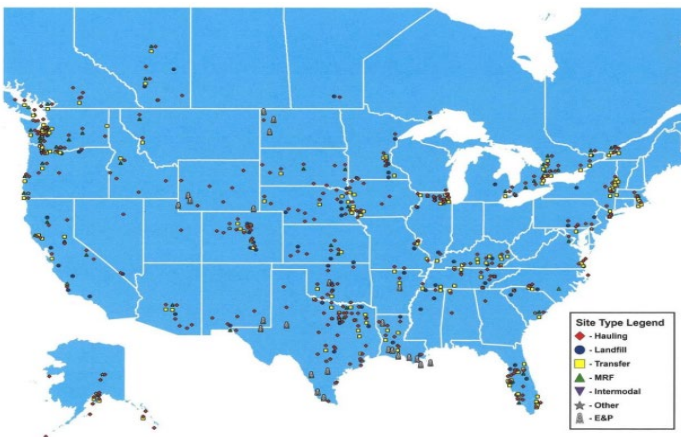
## COMPANY DESCRIPTION

Waste Connections is a leading solid waste services company in North America. They provide non-hazardous waste collection, transfer, and disposal services. Along with resource recovery involved primarily with fuel. The next chart compares Waste connection’s market share and 2021 revenue to their main competitors for a visual of their market positioning. <sup>5</sup>



(Source: FactSet)

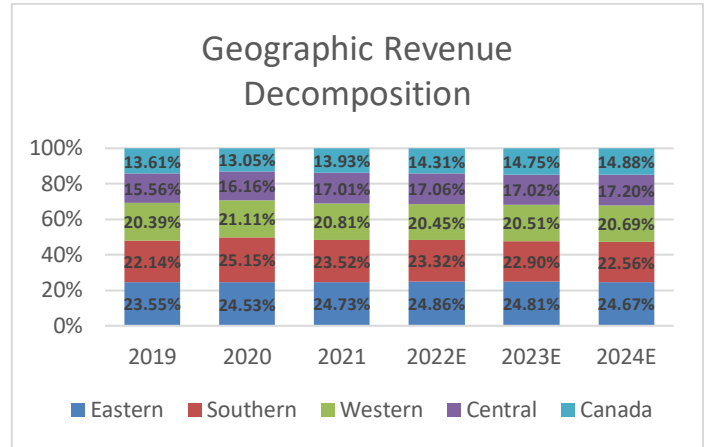
As you can see in the depiction below. They operate heavily within the United States and throughout much of Canada. This includes 43 states and 6 Canadian provinces. Their strategy has been to manage competition by entering markets in more rural areas where they can fight for exclusive contracts. The most successful region they have had regarding their M&A activity has largely been in the West Coast over the last year.



(Source: WasteConnections.com)

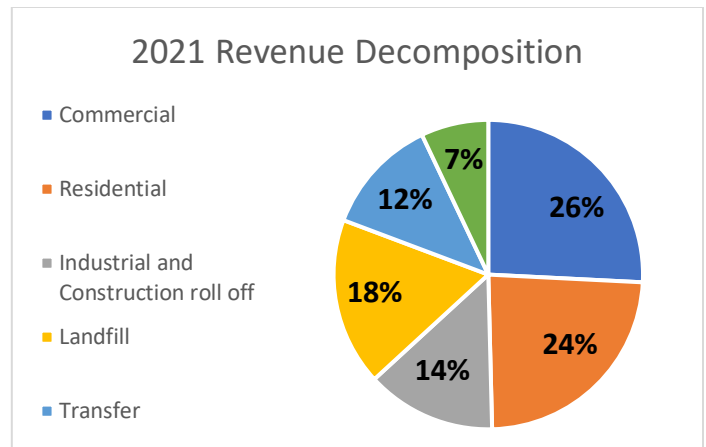
We can see clearly from the next depiction that the east coast is where they generate the highest percentage of revenue which is consistently around 24%. It was 24.73%

in 2021 and is predicted to fall slightly to 24.67% of total revenue. As we expect a few of the other regions to grow slightly faster. However, they are diversified when comparing each geographic region.



(Source: 10-k & HF Model)

Next, we break down their revenue not by geographic regions, but by the type of customer they serve. Commercial and residential revenue makes up around half of their total revenue. With respective percentages of 25.8% and 23.81%. Landfill and industrial services make up the next highest amounts of revenue. These breakdowns are not expected to change much throughout our forecast period. We will elaborate on this topic more in the next section.



(Source: 10-k & HF Model)

### Solid Waste Collections

They provide collection services to almost any type of entity that you could imagine. Including residential, commercial, municipal, industrial, and E&P customers.

They conduct this business normally through one of the following agreements.

| Contract Arrangements          |                           |
|--------------------------------|---------------------------|
| Governmental Certificates      | Residential Subscriptions |
| Exclusive Franchise Agreements | Residential Contracts     |
| Exclusivemunicipal Contracts   | Commercial Contracts      |
| E&P Service Agreements         | Industrail Contracts      |

(Source: 10-k)

These are all the traditional services that people think about when it comes to trash pick-up. With the expected expansion of landfills, we explain next. We are convicted this will allow them to increase capacity so they can grow their business activities.

Next, you can see our growth forecast for collection revenue. We are expecting every segment to expand. Revenue totaled \$3.8 billion in 2019 and we are expecting this to grow to a level of \$5.8 billion in our forecast year of 2024. That is an average growth rate of 9.23%. A lot of this is assumed to be from price increases but some of it also comes from volume growth, and new customers through acquisitions. This is reasonable to expect given the consolidation trend in the industry and the synergies that Waste Connections has a history of discovering.



(Source: 10-k & HF Model)

## Landfills

As of December 31, 2021, Waste Connections owned or operated a total of 97 landfills. Some of which have different roles and functions within environmental

services. Below is a quick list of the different types of landfills they currently own.

- 71 municipal solid waste (MSW) landfills
- 12 E&P Landfills
- 14 non-MSW landfills.

Municipal solid waste landfills would be receptive to all your average daily waste produced by residential and commercial consumers. While their non-MSW landfills tend to serve industrial and construction customers. These 14 landfills accept only construction, demolition, industrial, and other non-putrescible waste.

They generally try to own landfills to achieve vertical integration in the markets they operate. They even own landfills in markets they do not provide direct collection services. They feel they are very competitive when it comes to attracting volume to their landfills with the locations they have. <sup>5</sup>

We forecasted their landfills to grow by more than one per year on average over the forecast horizon. This ultimately led to an implied revenue of \$140 per ton of disposed waste. In 2022 which was about an 8% growth rate consistent with each of the last two years. Without an expansion of landfills, these companies tend to limit their growth capacity. This expansion will in turn support our forecasted revenue assumptions. <sup>5</sup>

## Other Revenue Generation

### Transfers

They also own/operate MSW transfer stations. These stations receive, compact, and load waste to be transported to landfills or treatment facilities via truck, rail, or barge. It is a way to link collection operations and waste generators with disposal or treatment facilities. By concentrating the waste streams from a wider area. Thus, providing better utilization rates and operating efficiencies. <sup>5</sup>

E&P, recycling, and intermodal activities are how they make up the rest of their revenue. The rest of these activities make up less than 3.33% of total revenue in 2021 which is not expected to change much. However, these are still important to briefly discuss. They recycle several materials for their clients. Including compost, cardboard, mixed paper, plastic containers, glass bottles, and various types of metals. Where they market the materials to third

parties for processing before resale. A majority of the recyclable product that they sell is composed of paper and they sell it primarily to customers across North America. <sup>5</sup>

| Other Rev. | 2019  | 2020  | 2021  | 2022E | 2023E | 2024E |
|------------|-------|-------|-------|-------|-------|-------|
| Recycling  | 1.19% | 1.59% | 3.33% | 3.28% | 3.38% | 3.44% |
| E&P        | 5.05% | 2.93% | 2.25% | 2.01% | 1.98% | 2.07% |
| Intermodal | 2.25% | 2.17% | 2.47% | 2.43% | 2.51% | 2.55% |

(Source: 10-k & HF Model)

Intermodal revenue is a little more self-explanatory, so we discuss what their E&P activities are. It is a broad term that refers to the by-products resulting from oil and natural gas exploration. We think that this segment will remain stagnant if not shrink some over time due to the direction of where our energy is derived. As for the recycling segment, we do think this will continue to be around 3% which is higher than where it was in 2019 and 2020. This is primarily because of the increased focus on recycling in certain areas across the country. <sup>5</sup>

### Cost Structure Analysis

The next chart shows some of our cost assumptions as we display margins over the years from 2019 to 2024. As you can see, we are expecting gross margins to remain pretty stable. The reason for this is that labor and benefits are included in this category. Although they may capture some cost synergies and economies of scale as they grow. We are expecting some labor/benefit pressure to keep their cost of operations up. As they have proactively increased their U.S. minimum wage to \$15 per hour. Rising fuel costs have also been a concern over the last year. However, management states many of their contracts allow them to pass through certain costs to customers. Including landfill tipping fees, and in some cases fuel costs through fuel and material surcharges. One of the biggest concerns is the timing discrepancies in contract renewals. We think where the most economies of scale will be recognized is from lower SG&A expenses. This is reflected in our operating margins expanding slightly.



(Source: 10-k & HF Model)

### Additional Company Analysis

#### Properties

They happen to operate several other types of facilities to diversify their property holdings. Each facility plays a vital role in their operational strategy to have vertical integration across the footprint. They own a majority of the facilities they operate.

However, there are several properties in their operations that they either lease or have some kind of non-possessory interest. Including 53 more transfer stations, 10 MSW landfills, and two intermodal operations. The next table shows all the types of properties they are involved with. Whether they lease the property, own it, or just operate it. The landfills stated in this chart are strictly the 87 they own while the previous number (97) we displayed includes landfills they operate, but do not own.

| Properties              |                                       |
|-------------------------|---------------------------------------|
| 142 Transfer Stations   | 334 Solid Waste Collection Operations |
| 61 MSW Landfills        | 23 E&P Liquid Waste Injection Wells   |
| 12 E&P Waste Landfills  | 19 E&P Waste Treatment Facilities     |
| 14 Non-MSW Landfills    | 4 Intermodal Operations               |
| 71 Recycling Operations |                                       |

(Source: 10-k)

### Debt Maturity Analysis

Waste Connections operates in a very capital-intensive industry that requires a significant amount of debt at times. The company targets a leverage ratio of approximately 2.5x-3x total debt to EBITDA as a common

term defined in their credit agreements. With higher EBITDA in 2021, this more than offset the impact of higher debt. This decreased their leverage ratio from 2.68x year-end 2020 to 2.5x year-end 2021. They also had \$933.8 million of remaining borrowing capacity which is supposed to mature in July 2026. Currently, they sit in good financial condition with a debt rating of BBB+ according to S&P with a stable outlook. This is consistent with Republic Services which also has a BBB+ debt rating. However, they do have some variable rates tied to SOFR which could impact credit quality, and the amount of debt they obtain. When chasing additional financing, or pursuing refinancing at attractive rates. This is something to keep an eye on as it could impact the profitability of future capital projects.<sup>5</sup>

#### Five-Year Debt Maturity Schedule

| Fiscal Year  | Payment (\$K)      |
|--------------|--------------------|
| 2022         | \$6,020            |
| 2023         | 6,090              |
| 2024         | 6,239              |
| 2025         | 6,391              |
| 2026         | 1,460,243          |
| Thereafter   | 3,616,988          |
| <b>Total</b> | <b>\$5,101,971</b> |

(Source: 10-k)

### ESG Analysis

In the next chart we can see some of Waste Connection’s ESG rankings. The data is on a scale from 0-100 with a lower number being consistent with less unmanaged risk. They are doing well and compared to the category average they are lower on that scale compared to some peers. They have an overall ESG rating of 20 compared to Waste Management which has a total ESG score of 17, and Republic Services which has a rating of 21. This might be surprising due to the industry they operate in, but they appear to do a good job at managing the ESG risk they do have.<sup>11</sup>

| ESG Scores (Sustainalytics) |      | (Scale = 0-100, Small is Good) |
|-----------------------------|------|--------------------------------|
| Total ESG Risk Score        | 20   |                                |
| Environmental Risk          | 10.5 |                                |
| Social Risk                 | 5.6  |                                |
| Governance Risk             | 3.9  |                                |

(Source: Yahoo Finance)

## RECENT DEVELOPMENTS

### Q2 2022 Earnings & Outlook

Waste Connections has performed very strong year to date in 2022, and the most recent data confirms this trend has been persistent. Revenue results for Q2 were up by 18.4% year over year to \$1.8 billion while adjusted EBITDA was up at 16.9% for the quarter. Management stated growth in solid waste pricing and E&P waste activity drove the top-to-bottom line growth in the quarter with solid-waste prices up 8.8%. Although they posted strong growth during the quarter. Margins remained with their previous outlook and came in flat. Management has also positively updated their full-year outlook for 2022. Including better revenue, EBITDA, and operating cash flow numbers which can be depicted in the next table.<sup>1</sup>

They were able to consistently pass on inflationary burdens by increasing solid-waste pricing by 8.8%. They can do so because this industry tends to have a high level of demand inelasticity compared to others. We took these estimates into consideration when forecasting our model. We felt comfortable maintaining their gross margins even through the time of high fuel costs and labor pressures primarily due to this evidence.<sup>1</sup>

| Billions       | Management Guidance |          |  |
|----------------|---------------------|----------|--|
|                | Old                 | New      |  |
| Revenue        | \$ 6.875            | \$ 7.125 |  |
| EBITDA         | \$ 2.145            | \$ 2.190 |  |
| Operating Cash | \$ 1.150            | \$ 1.974 |  |

(Source: WasteConnections.com)

### Acquisitions

Waste Connections has been in process of growing through many acquisitions. Management is expecting their future growth strategy to continue to include acquiring additional waste businesses.<sup>5</sup>

During the year 2021, they completed 30 acquisitions having a net fair value of \$1.069 billion. These numbers are

expected to continue in the future; however, they might slow down some due to the cost of raising capital.

| Acquisitions |    |                    |
|--------------|----|--------------------|
| Year         | #  | Net Fair Value (M) |
| 2019         | 21 | \$ 837.70          |
| 2020         | 21 | \$ 481.60          |
| 2021         | 30 | \$ 1,069.00        |

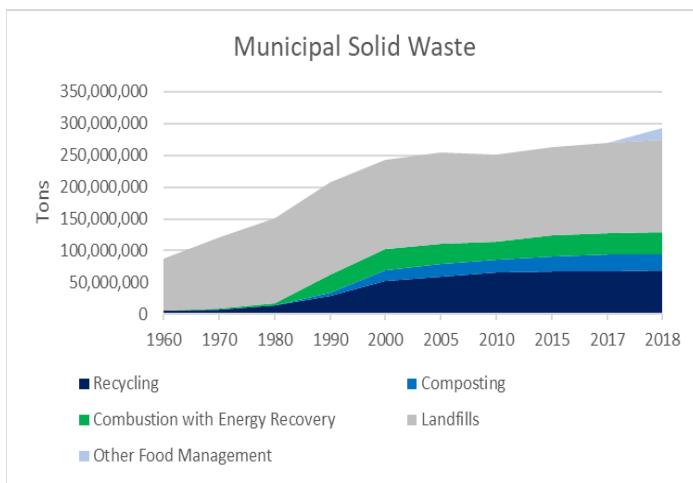
(Source: 10-k)

One driving reason behind growing through acquisition is to increase operating efficiencies. With the use of heavy equipment in the industry and the costs of transporting waste to landfills. These companies try to have as much business centralized as possible to increase profitability. Prime landfill real estate must be centralized near the areas they serve to cut down on transportation. These are some of the driving factors to growth through acquisition. Along with the market having a mature status already.

## INDUSTRY TRENDS

### Growth in Solid-Waste

Naturally, as our population has grown there has been an increased demand for solid waste management which impacts Waste Connections. Municipal solid waste (MSW) was 294.4 million tons in 2018 which is the equivalent of 4.9 pounds per person on average. About 94 million tons of MSW was either recycled or composted. That is a recycling and composting rate of 32.1%.<sup>12</sup>

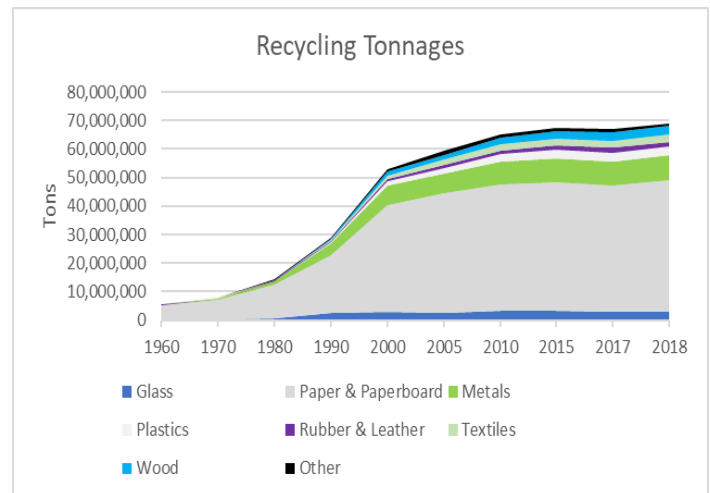


(Source: EPA.Gov)

The expansion of solid waste will most likely continue. The production of solid waste is not always a bad thing though.

As it is a necessary evil as our economy grows. The thing that matters most is what percentage of our produced waste is recyclable or biodegradable. These environmental service companies do not have a significant financial burden shifting to recycling services as needed. Most of them and especially the bigger ones like Waste Connections directly handle recycling already and have the resources to transition successfully if the recycling business expands. The next graphic shows some data on recycling trends over the last couple of decades. This rate of growth has slowed but will most likely continue to grow slowly in one way or another. Even if it is in centralized markets.

According to a report from Greenpeace that was reported by NPR. The amount of plastic turned into new things has fallen to new lows of around 5%. More plastic is being produced and a smaller percentage of it is being recycled. Waste management experts say the problem with plastic is that it is expensive to collect and sort. Also, there are thousands of different types of plastics and none of them can be melted down together. While simultaneously new plastic is cheap and easy to produce. It is very important to understand that just because you place your plastics in a recyclable bin and it goes to the recycling facility. The recycling facility might send it right to the landfill. This graph also corresponds with China taking importing less of our trash and recyclables over the last few years.<sup>12, 17</sup>



(Source: EPA.Gov)

With China importing less trash/recyclables other countries soon enacted similar policies. This cut down on the demand for such recyclables which changes the economics behind profitable recycling. The petrochemical companies that make plastics also rely less on recyclables

when the cost of oil which is their main input cost is low. A business model that relies on an input cost that can fluctuate greatly at times can have a hard time through the changing environment.<sup>18</sup>

## Consolidation

Acquisitions in the industry have been a key part of success for years, but the most recent five years were more active than historical measures. This is believed to be for several reasons. First, interest rates have been historically low which has allowed big conglomerate waste management companies to offer attractive bids that may have been declined under different circumstances. Second, labor challenges have also been problematic for small trash companies. Which has increased the incentive to sell at a good time.

The acquisition trend can be empirically witnessed through the actions taken at Waste Connections. As we previously stated they have acquired a total of 72 companies of various sizes over the past three years, and this is consistent among their main competition. Waste Management acquired 11 solid-waste businesses in 2021 alone. While Republic Services stated they are expected to invest at least \$500 million in acquisition for the year 2022.

There has been speculation on when this strategy would taper off in the industry. Could that time possibly be now with rates rising higher than we have seen in years? We think the rate of acquisitions will most definitely slow over the next few years, but continue.

## Electric Refuse Trucks

The evolution of electric vehicles is inevitable at this point, and it is only a matter of time before environmental service companies are increasingly impacted by this trend.

The push for not only renewable-friendly vehicles, but potentially even self-sustaining ones that run off the trash they pick up will be the future to some degree. Waste Connections has already experimented with such technology.<sup>13, 14</sup> Acting very much as a pioneer in the space. Now, about two years ago. Waste Connections purchased the first Lions8 chassis with fully automated side-load bodies. They introduced these vehicles into markets like Washington and Florida. We think the transition to electric refuse trucks is in a stage of infancy but will continue to expand over the next decade which

will lower costs in their expense structure. However, we do think there will largely still be drivers in the front seat to always monitor operations, so we predict this could cut down on costs by about half in the distant future.

## Mandatory Recycling

Mandatory recycling has been enacted in several jurisdictions across the United States. Including state and local governments. The Environmental Protection Agency has worked with state, local, and industry leaders to promote more high-quality recycling throughout the country. Even creating the American Recycles Pledge. Which has efforts of increasing recycling of the 8.9 billion tons of recyclable material that ends up in landfills. Action from the federal government has been limited though due to the lack of significant legislation at this point.

States and local governments have taken charge and done a pretty good job of legislating this themselves. Twenty-seven known states have at least one mandatory recycling requirement, and this number is expected to expand in one way or another.

Companies that operate in the space will have to keep up with regulatory changes and alter resources, so they can most appropriately manage capital and have efficient margins. Management at Waste Connections will have to continue to adapt and monitor these societal changes.<sup>15</sup>

## MARKETS AND COMPETITION

### Industry Outlook

The waste collection services industry is expected to grow over the next five years to 2027, but growth might slow faster than previously expected if the negative GDP statistics persist. The industry is expected to grow by 1% annually on average by 2027. This is largely because of the expected population growth as the amount of solid waste tends to be strongly correlated with that demographic.

The industry is very much in the mature stage of growth. That is why the consolidating trend has been so important for companies like Waste Connections to experience expansions.

### Concentrated Customer Offerings

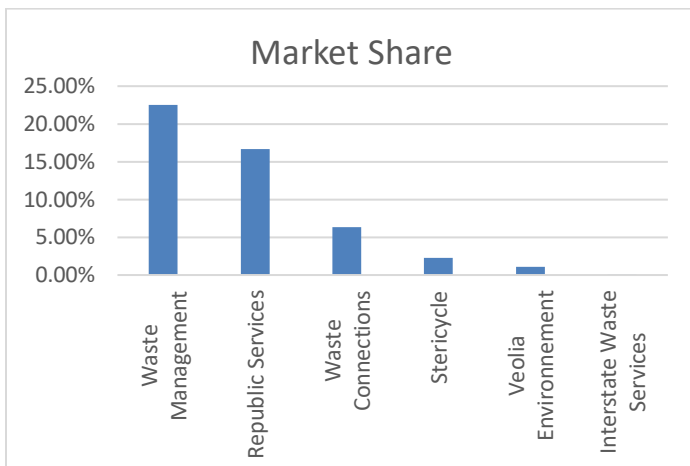
Waste collection service companies tend to be concentrated in the services they provide. This lack of

diversification would be perceived as an enhanced risk in many industries. However, waste collection is a prominent economic staple, and the lack of diversified products is much less alarming compared to other industries.

Operating in this industry comes with high capital requirements. This can act as a barrier to entry for some, and give the bigger companies a competitive advantage when it comes to bidding for larger cities where a massive amount of physical property is imperative.<sup>3</sup>

### Market Share

The largest companies are expected to generate most of the industry revenue in 2022 and beyond. As you can see below most of the industry’s market share is held by the top competitors. Waste Management makes up 22.52% of the industry while Republic Services has a 16.71% share and Waste Connections has 6.38% of the market according to revenue.<sup>3</sup>



(Source: IBISWorld)

### Price

This industry competes heavily on price. Many consumers and municipalities that allow bidding to occur for collection services care about price the most. Most people will never personally interact with their waste collector and if the waste is disposed of at the end of the day that is what matters. This allows the big players like Waste Management and Waste Connections to maintain their rein in the markets they operate.

The chance of startup companies taking on these big companies and winning a bidding war is close to zero. These barriers to entry will continue to play a role in the industry and allow the consolidation trend to continue.

## Peer Comparisons

### Waste Connections (WCN)

Waste Connections is the third-largest solid waste service company in North America. They find a strategic niche by avoiding highly competitive areas. This tends to be large urban markets. This allows them to instead target markets where they can attain high market share either through exclusive contracts, vertical integration, and asset positioning. They also target niche markets like E&P waste treatment and disposal services.

They break revenue down into four primary segments with the respective revenue percentages. Including commercial (26%), residential (24%), landfill (18%), and other (33%) categories.

### Waste Management (WM)

Waste Management is North America’s leading provider of comprehensive waste management environmental services. They provide value at every stage from collection to disposal for residential, commercial, industrial, and municipal customers. They own or operate 260 landfills which is by far the largest network across the United States and Canada compared to the rest. Republic Services has 198 active landfills, followed by Waste Connections with 97 operating landfills. They tend to focus more heavily on large municipalities compared to Waste Connections<sup>5</sup>

### Republic Services (RSG)

Republic Services is another one of the largest providers of environmental services in the United States according to many metrics. They are currently headquartered in Phoenix, Arizona where they strategically plan to develop the best vertically integrated market position they can.



Below is a table that quickly illustrates some of the facilities they operate daily.<sup>5</sup>

Many of the services they offer to customers are listed below.

| Republic Services    |                                 |
|----------------------|---------------------------------|
| 356 Collection Ops   | 239 transfer stations           |
| 198 active landfills | 71 recycling processing centers |
| 6 disposal wells     | 7 deep injection wells          |
| 3 (TSDF)             |                                 |

| Clean Harbor          |                              |
|-----------------------|------------------------------|
| Technical Services    | Containerized Waste Services |
| Industrial Services   | VAC Services                 |
| Field Services        | Motor Oil Collection         |
| Parts Washer Services | Sale of Oils                 |
| Oil, Gas, Lodging     |                              |

(Source: 10-k)

(Source: 10-k)

### GFL Environment (GFL)

GFL Environment operates primarily through the following channels.

- Solid Waste
- Infrastructure
- Soil Redemption
- Liquid Waste
- Corporate

As you can see from the segmentation of their operations. Soil redemptions and infrastructure is one deviating factor they more heavily distinguish themselves compared to the rest. This segment provides remediation of contaminated soils as well as complementary services including civil, demolition, excavation, and shoring services. They are headquartered in Vaughan, Canada. Although headquartered in Canada. They generate a majority of their revenue (54%) from the United States. This is a natural operation tactic as the U.S. market has a lot more opportunities.<sup>4</sup>

### Clean Harbors (CLH)

Clean Harbors is headquartered in Norwell, Massachusetts. Operating segments consist of the following distinct three groups. Environmental services, Safety-Kleen sustainability solutions, and corporate items.

A competitive advantage they have found is being the largest re-refiner and recycler of used oil in North America. They are also the largest provider of parts cleaning and related environmental services to commercial, industrial, and automotive customers in North America.<sup>5</sup>

### Casella Waste Systems (CWST)

Casella Waste Systems is more of a regionally focused resource management company compared to the bigger competitors like Waste Connections and Waste Management.

They operate in the Eastern and Western regions of the United States and break their operating segments down consistent with this pattern. Their western segment makes up about 43.8% of their total revenue and their eastern segment makes up 29.8%. While their resource solutions segment makes up the rest with 26.4%.<sup>5</sup>

### Additional Peer Comparison

To follow are a few great illustrations of some common ratios to compare between companies. Waste Connections has an estimated 2022 P/E ratio of 37.2 and an EPS of 4.9. These numbers are in the middle of the pack when compared to their peers. They go as high as 53.9 for GFL Environmental and as low as 17.5 for Clean Harbors.

Clean Harbors also has the most extreme EPS, and that is most definitely a causality to why their P/E is so high.

| Peer Comparison |          |          |            |         |
|-----------------|----------|----------|------------|---------|
| Ticker          | P/E '22E | EPS '22E | Div. Yield | ROE     |
| WCN             | 37.2     | 4.9      | 0.70%      | 7.70%   |
| WM              | 30       | 5.72     | 1.50%      | 27.30%  |
| RSG             | 30.4     | 4.77     | 1.40%      | 13.80%  |
| GFL             | 53.9     | 0.52     | 0.20%      | -16.10% |
| CLH             | 17.5     | 6.81     | 0%         | 9.40%   |
| CWST            | 76.4     | 1.07     | 0%         | 35.80%  |

(Source: FactSet)

When it comes to profitability measures and financial performance. Waste Connection comes in about average amongst their peers again. Average profit margins and the 5-yr EBITDA CAGR both come in at the middle of the pack. However, their revenue growth has been right at the top. Only behind GFL Environmental which has experienced growth. That appears much like an anomaly compared to the rest probably because of their smaller size combined with a few really good years of growth.

| Peer Comparison |                 | 5-yr Average or CAGR |         |        |  |
|-----------------|-----------------|----------------------|---------|--------|--|
| Ticker          | Market Cap. (M) | Profit Margin        | Revenue | EBITDA |  |
| WCN             | 46825           | 9.6%                 | 11.5%   | 12.9%  |  |
| WM              | 70891           | 11.4%                | 5.7%    | 6.1%   |  |
| RSG             | 45709           | 10.9%                | 3.8%    | 28.8%  |  |
| GFL             | 9712            | -16.4%               | 44.3%   | 54.8%  |  |
| CLH             | 6436            | 3.6%                 | 6.7%    | 15.7%  |  |
| CWST            | 4245            | 3.6%                 | 9.5%    | 21.6%  |  |

(Source: FactSet)

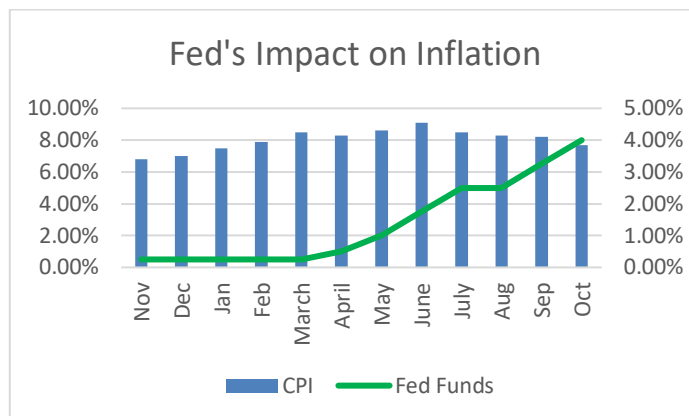
## ECONOMIC OUTLOOK

### Inflation

With inflation data being around 7.7% in October. This was a very small but hopefully positive sign the economy is slowly headed in the right direction. <sup>6</sup> With the CPI being a lagging indicator and with fuel prices coming down over the past two months. Headline inflation will most likely cool even more when the next CPI data is released.

Historically, high-interest rates have not been very problematic for Waste Connections. Like we previously mentioned. Due to the industry, they were able to pass on most of their cost increases to the customer. As solid-waste prices increased by 8.8% according to their latest financial disclosures. If inflation continues for too long

without coming down, we think they will likely lose some negotiation power to pass on costs. However, to some degree, they should always be able to increase prices. Next is a chart that shows the CPI and fed-funds rate data over the past 12 months. This will tie into our next section as well with our fed-funds rate expectations.



(Source: BLA & FRED)

### Treasury Yields

With the latest inflation data still running historically higher than normal, and persistently above the Fed's objective target of 2%. The Fed will almost be forced to push the economy into some varying degree of a recession to slow us down. Jerome Powell recently said the Fed must continue to raise rates and keep them elevated to bring inflation down. Arguing that if left uncontrolled it would place the United States in worse shape.

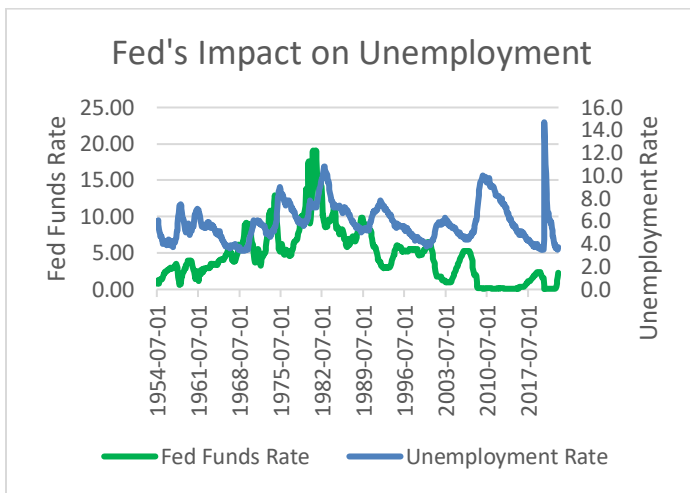
The current Fed Funds target rate is at 3.75-4.00%, and with the 30-year treasury rate strongly correlated with it and around 4%. This number might continue to rise with further Fed rate moves. If rates continue to climb this would increase the financial burden Waste Connections has to bear for capital projects moving forward. Our Henry Fund team is forecasting the rate to be between 4.75-5.25% over our short-term forecast. <sup>9</sup>

### Employment

Recently we have not seen many times like this from a macroeconomic perspective. We always hear about theoretical stagflation. However, our own eyes have been able to see empirical evidence of it or at least very similar economic conditions over the most recent six months. With the unemployment rate now around 3.7%. Which has been consistently falling since coming out of the COVID-19 pandemic. According to our historical measures of

unemployment, we must be hovering around full employment right now. Combined with the fact that the Fed is likely to push our economy to a point where a softer labor market is inevitable. We do not think the unemployment rate will continue to fall and will likely hit an inflection point. If it has not already.

Below is a great depiction of the fed funds rate compared to historical unemployment rates. The fed funds rate represented in green has historically risen before the unemployment rate rises. There are at least six visible scenarios like this on the chart below. The fed has been raising rates, but we have not seen the unemployment rate tick up much yet. According to precedent, it is only a matter of time before this occurs.<sup>8, 16</sup>



(Source: U.S. Bureau of Labor Statistics)

A rising unemployment rate could cause some problems for Waste Connections. It could force them to increase wages even higher than their current \$15 U.S. minimum wage to fill the position, but we would be willing to say it would have less material impact on them than many other business models.

## VALUATION

### Revenue Decomposition

Like we have previously communicated. We expect Waste Connections to expand into the forecast horizon with a CAGR of 5.98%. Along with a terminal growth rate for total collections of 2%. We dropped this value to our assumption of the long-term economic growth rate. As they expand their capacity to collect the trash through more landfills. This will allow them to grow. We are forecasting an increase in operated landfills on average of

one throughout the investment horizon. Backing into an implied revenue per ton disposed of \$140 thousand compared to about 130 in 2021. This represents a 4% growth in 2022 which drops down to 2% over time.

We are forecasting commercial, residential, and industrial collection service categories to all grow over the horizon. We have each category growing by a CAGR of the respective percentages. First, 3.66%, 4.34%, and 5.44% with each category tapering off to a reasonable 2% growth rate in the terminal year.

### Cost Assumptions

As previously mentioned, we are expecting the cost of operations to stay constant over the forecast horizon. This account consists of labor and benefits which we believe could have a high chance of being under pressure if the tight labor market persists. We are expecting their gross margins to continue to be around 40-41% despite the opportunity of increased economies of scale. Which will positively impact their SG&A expenses. We have their SG&A expenses following over time. Year-over-year growth in the account is forecasted to increase 7% in 2023. Followed by 6% in 2024 which will continue to fall slowly for the rest of the forecast.

### Capital Expenditures

As growth is captured throughout the next decade. They will naturally need to expand their property, plant, and equipment (PPE). We have a CAPEX assumption of \$744, 315 a year. This will occur from two main sources. First, as they grow internally this will cause them to expand. As they will need more collection trucks and landfills on their balance sheet to have increased capacity. Also, this will occur through the number of acquisitions they will continue to have. They have grown in part through

acquisition and that strategy will continue as it is the norm in the industry.

## Valuation

### Discounted Cash Flow

Our DCF and EP Models have the company valued at \$145.59 with the utilization of a 6.49% WACC.

- Risk-free rate of 3% based on a 10-yr Treasury
- Beta of .77 based on an average from 1, 2, and 5yr weekly statistics
- Henry Fund Equity Risk Premium of 5.15%

We think these estimated parameters are justifiable given current economic conditions. Therefore, portraying an accurate intrinsic price that can be witnessed in comparison to the market value.

### Dividend Discount Model

Our DDM model derived a value of \$80.55. We incorporated a dividend growth rate assumption of 9 cents per share every year in the forecast. This is because they have increased their dividends by 8 or 9 cents annually each of the past 5 years. We felt like we witnessed a trend that could be extrapolated successfully in this model. Our CV growth of EPS was 3% and our cost of equity assumption was 6.97%.

### Relative Value

The relative value that we computed was \$136. This value was derived from our price-to-earnings ratio for 2022. This price is reasonable given the current stock price for Waste Connections compared to their peers. The companies used to compute these assumptions were the same as in the peer comparison discussion above. Casella Waste Systems and Clean Harbors are some of the biggest contributors to this value. Their respective forward P/E ratios are \$79 and \$18. The other peers are much closer to the forward P/E range of Waste Connections for 2022 which happens to be \$44.

## KEYS TO MONITOR

### Bull Case

- If a tight labor market weakens to an unemployment rate of around 4.25%, and pressure on wages and benefits decelerates without an economic crisis.
- Economies of scale are captured at a rate faster than expected in our forecast.

### Bear Case

- Miscalculated synergies in an industry known for consolidating. This could lead to a destruction of value.
- If the thirty-year treasury rises to a rate above 5-6%. We think this would have a material impact and discourage a significant amount of previously discussed growth opportunities.

### Conclusion

Waste Connections sits in a good industry that tends to have stable economic characteristics. They are one of the industry leaders and will continue to exhibit strength when it comes to consolidation. Like any company, there is a bear case like we have highlighted already. However, we do not think if these scenarios occurred it would significantly change our thought process behind this investment decision. These are the primary reasons we recommend it as a *HOLD* given our economy forecast and current position in the company. This company can display a great place for the Henry Fund to store value in a time of elevated market uncertainty.

## REFERENCES

1. Wasteconnections.com - [investors.wasteconnections.com](https://investors.wasteconnections.com)
2. Waste360.Com - [www.waste360.com](http://www.waste360.com)
3. IBISWorld - [ibisworld.com](http://ibisworld.com)
4. FactSet - [factset.com](http://factset.com)
5. SEC.gov - <https://www.sec.gov>
6. U.S. Bureau of Labor Statistics - <https://stats.bls.gov>
7. New York Time - <https://www.nytimes.com>
8. U.S. Bureau of Labor Statistics - <https://stats.bls.gov>
9. Bankrate.com - <https://www.bankrate.com>
10. Worldbank.org - [datatopics.worldbank.org](http://datatopics.worldbank.org)
11. Yahoofinance.com - <https://finance.yahoo.com>
12. EPA.gov - <https://www.epa.gov>
13. Wastedive - <https://www.wastedive.com>

14. Trucknews.com - <https://www.trucknews.com>
15. NCSL.ORG - <https://www.ncsl.org>
16. Fred.stlouisfed - [fred.stlouisfed.org](http://fred.stlouisfed.org)
17. NPR.org - <https://www.npr.org>
18. <https://www.cnbc.com/2021/05/22/is-recycling-a-waste-heres-the-answer-from-a-plastics-expert.html>

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**Waste Connections**  
Revenue Decomposition

| <i>Fiscal Years Ending Dec. 31</i>    | 2019             | 2020             | 2021             | 2022E            | 2023E            | 2024E            | 2025E            | 2026E            | 2027E            | 2028E            | 2029E            | 2030E            | 2031E             |
|---------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|
| Commercial                            | 1,593,217        | 1610313          | 1813426          | 2,085,440        | 2,293,984        | 2,431,623        | 2,553,204        | 2,629,800        | 2,682,396        | 2,736,044        | 2,790,765        | 2,846,580        | 2,903,512         |
|                                       | 9.7%             | 1.1%             | 12.6%            | 15.0%            | 10.0%            | 6.0%             | 5.0%             | 3.0%             | 2.0%             | 2.0%             | 2.0%             | 2.0%             | 2.0%              |
| Residential                           | 1,380,763        | 1528217          | 1673819          | 1,883,046        | 1,977,199        | 2,076,059        | 2,179,862        | 2,288,855        | 2,403,297        | 2,523,462        | 2,599,166        | 2,651,149        | 2,704,172         |
|                                       | 16.1%            | 10.7%            | 9.5%             | 12.5%            | 5.0%             | 5.0%             | 5.0%             | 5.0%             | 5.0%             | 5.0%             | 3.0%             | 2.0%             | 2.0%              |
| Industrial and Construction roll off  | 841,173          | 833148           | 954181           | 1,049,599        | 1,154,559        | 1,270,015        | 1,397,016        | 1,501,793        | 1,614,427        | 1,695,148        | 1,729,051        | 1,763,632        | 1,798,905         |
|                                       | 9.4%             | -1.0%            | 14.5%            | 10.0%            | 10.0%            | 10.0%            | 10.0%            | 7.5%             | 7.5%             | 5.0%             | 2.0%             | 2.0%             | 2.0%              |
| <b>Total Collections</b>              | <b>3,815,153</b> | <b>3,971,678</b> | <b>4,441,426</b> | <b>5,018,085</b> | <b>5,425,742</b> | <b>5,777,696</b> | <b>6,130,082</b> | <b>6,420,447</b> | <b>6,700,121</b> | <b>6,954,655</b> | <b>7,118,983</b> | <b>7,261,362</b> | <b>7,406,589</b>  |
|                                       | 11.9%            | 4.1%             | 11.8%            | 13.0%            | 8.1%             | 6.5%             | 6.1%             | 4.7%             | 4.4%             | 3.8%             | 2.4%             | 2.0%             | 2.0%              |
| Landfill                              | 1,132,935        | 1146732          | 1233499          | 1,356,849        | 1,438,260        | 1,510,173        | 1,585,681        | 1,664,966        | 1,698,265        | 1,732,230        | 1,766,875        | 1,802,212        | 1,838,256         |
|                                       | 6.6%             | 1.2%             | 7.6%             | 10.0%            | 6.0%             | 5.0%             | 5.0%             | 5.0%             | 2.0%             | 2.0%             | 2.0%             | 2.0%             | 2.0%              |
| Transfer                              | 771,316          | 777754           | 859113           | 945,024          | 1,015,901        | 1,066,696        | 1,120,031        | 1,142,432        | 1,165,280        | 1,188,586        | 1,212,358        | 1,236,605        | 1,261,337         |
|                                       | 15.1%            | 0.8%             | 10.5%            | 10.0%            | 7.5%             | 5.0%             | 5.0%             | 2.0%             | 2.0%             | 2.0%             | 2.0%             | 2.0%             | 2.0%              |
| Recycling                             | 64,245           | 86389            | 205076           | 225,584          | 248,142          | 266,753          | 280,090          | 294,095          | 308,799          | 314,975          | 321,275          | 327,700          | 334,254           |
|                                       | -30.6%           | 34.5%            | 137.4%           | 10.0%            | 10.0%            | 7.5%             | 5.0%             | 5.0%             | 5.0%             | 2.0%             | 2.0%             | 2.0%             | 2.0%              |
| E&P                                   | 271,887          | 159438           | 138707           | 138,707          | 145,642          | 160,207          | 200,258          | 300,387          | 375,484          | 413,033          | 433,684          | 442,358          | 451,205           |
|                                       | 6.1%             | -41.4%           | -13.0%           | 0.0%             | 5.0%             | 10.0%            | 25.0%            | 50.0%            | 25.0%            | 10.0%            | 5.0%             | 2.0%             | 2.0%              |
| Intermodal and Other                  | 121,137          | 118396           | 152194           | 167,413          | 184,155          | 197,966          | 207,865          | 218,258          | 226,988          | 233,798          | 238,474          | 243,243          | 248,108           |
|                                       | -13.4%           | -2.3%            | 28.5%            | 10.0%            | 10.0%            | 7.5%             | 5.0%             | 5.0%             | 4.0%             | 3.0%             | 2.0%             | 2.0%             | 2.0%              |
| Intercompany                          | (787,994)        | -814397          | -878654          | -966,519         | -1,111,497       | -1,222,647       | -1,314,346       | -1,380,063       | -1,407,664       | -1,435,817       | -1,464,534       | -1,493,824       | -1,523,701        |
|                                       | 11.0%            | 3.4%             | 7.9%             | 10.0%            | 15.0%            | 10.0%            | 7.5%             | 5.0%             | 2.0%             | 2.0%             | 2.0%             | 2.0%             | 2.0%              |
| <b>Total</b>                          | <b>5,388,679</b> | <b>5,445,990</b> | <b>6,151,361</b> | <b>6,885,143</b> | <b>7,346,344</b> | <b>7,756,844</b> | <b>8,209,662</b> | <b>8,660,522</b> | <b>9,067,274</b> | <b>9,401,459</b> | <b>9,627,114</b> | <b>9,819,656</b> | <b>10,016,050</b> |
|                                       | 9.5%             | 1.1%             | 13.0%            | 11.9%            | 6.7%             | 5.6%             | 5.8%             | 5.5%             | 4.7%             | 3.7%             | 2.4%             | 2.0%             | 2.0%              |
| <b>Regions</b>                        |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                   |
| Eastern                               | 1,268,964        | 1,335,865        | 1,521,288        | 1,711,449        | 1,822,693        | 1,913,828        | 2,028,658        | 2,140,234        | 2,236,544        | 2,320,415        | 2,366,823        | 2,414,159        | 2,462,443         |
|                                       | 16.4%            | 5.3%             | 13.9%            | 12.5%            | 6.5%             | 5.0%             | 6.0%             | 5.5%             | 4.5%             | 3.8%             | 2.0%             | 2.0%             | 2.0%              |
| Southern                              | 1,192,922        | 1,369,580        | 1,446,746        | 1,605,888        | 1,682,413        | 1,749,710        | 1,824,073        | 1,897,036        | 1,964,191        | 2,023,902        | 2,064,380        | 2,105,668        | 2,147,781         |
|                                       | 6.3%             | 14.8%            | 5.6%             | 11.0%            | 4.8%             | 4.0%             | 4.3%             | 4.0%             | 3.5%             | 3.0%             | 2.0%             | 2.0%             | 2.0%              |
| Western                               | 1,098,849        | 1,149,762        | 1,280,188        | 1,408,207        | 1,506,781        | 1,604,722        | 1,709,029        | 1,815,997        | 1,920,417        | 1,997,414        | 2,057,560        | 2,098,711        | 2,140,686         |
|                                       | 5.3%             | 4.6%             | 11.3%            | 10.0%            | 7.0%             | 6.5%             | 6.5%             | 6.3%             | 5.8%             | 4.0%             | 3.0%             | 2.0%             | 2.0%              |
| Central                               | 838,584          | 880,323          | 1,046,416        | 1,174,368        | 1,250,701        | 1,334,386        | 1,423,790        | 1,515,816        | 1,602,976        | 1,675,751        | 1,726,694        | 1,761,228        | 1,796,452         |
|                                       | 20.9%            | 5.0%             | 18.9%            | 12.2%            | 6.5%             | 6.7%             | 6.7%             | 6.5%             | 5.8%             | 4.5%             | 3.0%             | 2.0%             | 2.0%              |
| Canada                                | 733,282          | 710,460          | 856,723          | 985,231          | 1,083,755        | 1,154,199        | 1,224,113        | 1,291,439        | 1,343,146        | 1,383,978        | 1,411,657        | 1,439,890        | 1,468,688         |
|                                       | 0.8%             | -3.1%            | 20.6%            | 15.0%            | 10.0%            | 6.5%             | 6.1%             | 5.5%             | 4.0%             | 3.0%             | 2.0%             | 2.0%             | 2.0%              |
| E&P                                   | 256,078          | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                 |
|                                       | 4.2%             | -100.0%          | 0.0%             | 2.0%             | 2.0%             | 2.0%             | 2.0%             | 2.0%             | 2.0%             | 2.0%             | 2.0%             | 2.0%             | 2.0%              |
| <b>Total</b>                          | <b>5,388,679</b> | <b>5,445,990</b> | <b>6,151,361</b> | <b>6,885,143</b> | <b>7,346,344</b> | <b>7,756,844</b> | <b>8,209,662</b> | <b>8,660,522</b> | <b>9,067,274</b> | <b>9,401,459</b> | <b>9,627,114</b> | <b>9,819,656</b> | <b>10,016,050</b> |
|                                       | 9.5%             | 1.1%             | 13.0%            | 11.9%            | 6.7%             | 5.6%             | 5.8%             | 5.5%             | 4.7%             | 3.7%             | 2.4%             | 2.0%             | 2.0%              |
| Number of Landfills                   | 96               | 91               | 97               | 98               | 100              | 99               | 101              | 103              | 102              | 103              | 105              | 108              | 110               |
| Landfill tonnage (thousands)          | 47,964           | 44,890           | 47,212           | 49,100           | 50,573           | 52,091           | 53,133           | 54,195           | 55,279           | 56,385           | 57,512           | 58,663           | 59,836            |
|                                       | 5.37%            | -6.41%           | 5.17%            | 4%               | 3%               | 3%               | 2%               | 2%               | 2%               | 2%               | 2%               | 2%               | 2%                |
| Implied revenue per ton disposed      | 112.35           | 121.32           | 130.29           | 140.23           | 145.26           | 148.91           | 154.51           | 159.80           | 164.03           | 166.74           | 167.39           | 167.39           | 167.39            |
|                                       | 3.88%            | 7.98%            | 7.40%            | 7.62%            | 3.59%            | 2.51%            | 3.76%            | 3.42%            | 2.64%            | 1.65%            | 0.39%            | 0.00%            | 0.00%             |
| Implied Landfill revenue per Landfill | 56,132           | 59,846           | 63,416           | 70,257           | 73,463           | 78,352           | 81,284           | 84,083           | 88,895           | 91,276           | 91,687           | 90,923           | 91,055            |
|                                       |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                   |
| Average Landfill tonnage per Landfill | 499.63           | 493.30           | 486.72           | 501.03           | 505.73           | 526.17           | 526.06           | 526.17           | 541.95           | 547.42           | 547.74           | 543.17           | 543.96            |

**Waste Connections**
*Income Statement*

| <i>Fiscal Years Ending Dec. 31</i>                        | 2019           | 2020           | 2021             | 2022E            | 2023E            | 2024E            | 2025E            | 2026E            | 2027E            | 2028E            | 2029E            | 2030E            | 2031E            |
|-----------------------------------------------------------|----------------|----------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Revenues                                                  | 5,388,679      | 5,445,990      | 6,151,361        | 6,885,143        | 7,346,344        | 7,756,844        | 8,209,662        | 8,660,522        | 9,067,274        | 9,401,459        | 9,627,114        | 9,819,656        | 10,016,050       |
| Cost of operations                                        | 3,198,757      | 3,276,808      | 3,654,074        | 4,056,726        | 4,328,466        | 4,570,332        | 4,837,133        | 5,102,779        | 5,342,438        | 5,539,340        | 5,672,296        | 5,785,742        | 5,901,456        |
| Selling, general & administrative                         | 546,278        | 537,632        | 612,337          | 753,923          | 804,425          | 849,374          | 898,958          | 948,327          | 992,866          | 1,029,460        | 1,054,169        | 1,075,252        | 1,096,757        |
| Depreciation                                              | 618,396        | 621,102        | 673,730          | 675,666          | 683,772          | 690,921          | 697,226          | 702,787          | 707,690          | 712,015          | 715,829          | 719,193          | 722,159          |
| Amortization of intangibles                               | 125,522        | 131,302        | 139,279          | 137,771          | 119,458          | 103,820          | 89,002           | 75,122           | 182,406          | 142,097          | 110,696          | 86,234           | 67,177           |
| Impairments & other operating items                       | 61,948         | 466,718        | 32,316           | 34,657           | 36,997           | 39,338           | 41,678           | 44,019           | 46,359           | 48,700           | 51,040           | 53,381           | 55,721           |
| <b>Operating income (loss)</b>                            | <b>837,778</b> | <b>412,428</b> | <b>1,039,625</b> | <b>1,226,400</b> | <b>1,373,226</b> | <b>1,503,058</b> | <b>1,645,665</b> | <b>1,787,488</b> | <b>1,795,513</b> | <b>1,929,847</b> | <b>2,023,084</b> | <b>2,099,855</b> | <b>2,172,778</b> |
| Interest expense                                          | 147,368        | 162,375        | 162,796          | 229,788          | 235,872          | 242,970          | 250,482          | 258,700          | 267,529          | 275,044          | 283,467          | 292,606          | 302,615          |
| Interest income                                           | 9,777          | 5,253          | 2,916            | 1,510            | 18,233           | 34,020           | 51,799           | 71,684           | 94,697           | 119,017          | 144,904          | 171,287          | 198,113          |
| Other income (expense), net                               | 5,704          | -1,392         | 6,285            | 6,885            | 7,346            | 7,757            | 8,210            | 8,661            | 9,067            | 9,401            | 9,627            | 9,820            | 10,016           |
| Gain (loss) on extinguishment of debt                     | -              | -              | -115,288         | -                | -                | -                | -                | -                | -                | -                | -                | -                | -                |
| Income (loss) before income tax provision (benefit)       | 705,891        | 253,914        | 770,742          | 1,005,007        | 1,162,934        | 1,301,865        | 1,455,192        | 1,609,132        | 1,631,748        | 1,783,221        | 1,894,148        | 1,988,356        | 2,078,292        |
| Income tax provision (benefit)                            | 139,210        | 49,922         | 152,253          | 175,222          | 196,200          | 214,749          | 235,124          | 255,387          | 256,534          | 275,727          | 289,048          | 300,017          | 310,436          |
| <b>Net income (loss)</b>                                  | <b>566,681</b> | <b>203,992</b> | <b>618,489</b>   | <b>829,785</b>   | <b>966,734</b>   | <b>1,087,115</b> | <b>1,220,067</b> | <b>1,353,745</b> | <b>1,375,214</b> | <b>1,507,494</b> | <b>1,605,100</b> | <b>1,688,339</b> | <b>1,767,857</b> |
| Less: net income attributable to noncontrolling interests | 160            | 685            | -442             | -442             | -442             | -442             | -442             | -442             | -442             | -442             | -442             | -442             | -442             |
| Net income (loss) attributable to Waste Connections       | 566,841        | 204,677        | 618,047          | 830,227          | 967,176          | 1,087,557        | 1,220,509        | 1,354,187        | 1,375,656        | 1,507,936        | 1,605,542        | 1,688,781        | 1,768,299        |
| Net earnings (loss) per share - basic                     | 2.15           | 0.78           | 2.37             | 3.19             | 3.72             | 4.19             | 4.70             | 5.22             | 5.31             | 5.83             | 6.21             | 6.54             | 6.86             |
| Dividends per common share                                | 0.67           | 0.76           | 0.85             | 0.94             | 1.03             | 1.12             | 1.21             | 1.30             | 1.39             | 1.48             | 1.57             | 1.66             | 1.75             |
| Weighted average shares outstanding - basic               | 263,793        | 263,190        | 261,167          | 260,106          | 259,905          | 259,728          | 259,477          | 259,150          | 258,843          | 258,554          | 258,282          | 258,027          | 257,787          |
| Year end shares outstanding                               | 263,618        | 262,825        | 260,212          | 260,000          | 259,811          | 259,645          | 259,309          | 258,992          | 258,694          | 258,414          | 258,151          | 257,903          | 257,671          |

**Waste Connections**
*Balance Sheet*

| <i>Fiscal Years Ending Dec. 31</i>                | 2019              | 2020              | 2021              | 2022E             | 2023E             | 2024E             | 2025E             | 2026E             | 2027E             | 2028E             | 2029E             | 2030E             | 2031E             |
|---------------------------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Cash & equivalents                                | 326,738           | 617,294           | 147,441           | 716,461           | 1,249,949         | 1,849,082         | 2,519,038         | 3,293,264         | 4,110,355         | 4,978,530         | 5,861,533         | 6,758,773         | 7,673,508         |
| Accounts receivable, Net                          | 662,808           | 630,264           | 709,614           | 850,722           | 907,708           | 958,429           | 1,014,379         | 1,070,086         | 1,120,344         | 1,161,636         | 1,189,518         | 1,213,308         | 1,237,574         |
| Prepaid expenses & other current assets           | 141,052           | 160,714           | 175,722           | 214,417           | 228,780           | 241,564           | 255,666           | 269,706           | 282,373           | 292,781           | 299,808           | 305,804           | 311,920           |
| <b>Total current assets</b>                       | <b>1,130,598</b>  | <b>1,408,272</b>  | <b>1,032,777</b>  | <b>1,781,601</b>  | <b>2,386,437</b>  | <b>3,049,075</b>  | <b>3,789,082</b>  | <b>4,633,057</b>  | <b>5,513,073</b>  | <b>6,432,946</b>  | <b>7,350,859</b>  | <b>8,277,885</b>  | <b>9,223,002</b>  |
| Restricted cash                                   | 96,483            | 97,095            | 72,174            | 80,556            | 85,952            | 90,755            | 96,053            | 101,328           | 106,087           | 109,997           | 112,637           | 114,890           | 117,188           |
| Restricted investments                            | 51,179            | 57,516            | 59,014            | 60,784            | 62,608            | 64,486            | 66,421            | 68,413            | 70,466            | 72,580            | 74,757            | 77,000            | 79,310            |
| Property & equipment, gross                       | 8,963,168         | 9,288,864         | 10,276,878        | 11,021,193        | 11,765,508        | 12,509,823        | 13,254,138        | 13,998,453        | 14,742,768        | 15,487,083        | 16,231,398        | 16,975,713        | 17,720,028        |
| Less accumulated depreciation & depletion         | 3,446,821         | 4,004,358         | 4,554,929         | 5,230,595         | 5,914,367         | 6,605,289         | 7,302,515         | 8,005,302         | 8,712,992         | 9,425,007         | 10,140,836        | 10,860,029        | 11,582,189        |
| Property & equipment, net                         | 5,516,347         | 5,284,506         | 5,721,949         | 5,790,598         | 5,851,141         | 5,904,534         | 5,951,623         | 5,993,151         | 6,029,776         | 6,062,076         | 6,090,562         | 6,115,684         | 6,137,839         |
| Operating lease right-of-use assets               | 183,220           | 170,923           | 160,567           | 162,493           | 164,192           | 165,691           | 167,012           | 168,177           | 169,205           | 170,111           | 170,911           | 171,616           | 172,238           |
| Goodwill                                          | 5,510,851         | 5,726,650         | 6,187,643         | 6,457,910         | 6,888,121         | 7,346,991         | 7,836,430         | 8,358,474         | 8,915,295         | 9,509,211         | 10,142,692        | 10,818,374        | 11,539,068        |
| Intangible assets, net                            | 1,163,063         | 1,155,079         | 1,350,597         | 1,212,826         | 1,093,368         | 989,548           | 900,546           | 825,424           | 643,018           | 500,920           | 390,224           | 303,990           | 236,813           |
| Other assets, net                                 | 85,954            | 92,323            | 115,203           | 116,117           | 123,895           | 130,818           | 138,455           | 146,059           | 152,919           | 158,555           | 162,360           | 165,608           | 168,920           |
| <b>Total assets</b>                               | <b>13,737,695</b> | <b>13,992,364</b> | <b>14,699,924</b> | <b>15,662,886</b> | <b>16,655,714</b> | <b>17,741,898</b> | <b>18,945,622</b> | <b>20,294,084</b> | <b>21,599,839</b> | <b>23,016,396</b> | <b>24,495,002</b> | <b>26,045,046</b> | <b>27,674,378</b> |
| Accounts payable                                  | 436,970           | 290,820           | 392,868           | 478,844           | 510,919           | 539,468           | 570,961           | 602,317           | 630,605           | 653,847           | 669,541           | 682,931           | 696,590           |
| Book overdraft                                    | 15,954            | 17,079            | 16,721            | 22,899            | 24,433            | 25,798            | 27,304            | 28,803            | 30,156            | 31,268            | 32,018            | 32,658            | 33,312            |
| Deferred revenue                                  | 216,443           | 233,596           | 273,720           | 269,724           | 287,792           | 303,873           | 321,612           | 339,274           | 355,209           | 368,300           | 377,140           | 384,683           | 392,377           |
| Accrued liabilities                               | 281,308           | 404,923           | 442,596           | 455,762           | 486,291           | 513,464           | 543,438           | 573,283           | 600,208           | 622,329           | 637,267           | 650,012           | 663,012           |
| Current portion of operating lease liabilities    | 29,929            | 30,671            | 38,017            | 31,392            | 31,720            | 32,009            | 32,265            | 32,490            | 32,688            | 32,863            | 33,018            | 33,154            | 33,274            |
| Current portion of contingent consideration       | 26,159            | 43,297            | 62,804            | 40,325            | 43,026            | 45,430            | 48,082            | 50,723            | 53,105            | 55,063            | 56,384            | 57,512            | 58,662            |
| Current portion of long-term debt & notes payable | 465               | 8,268             | 6,020             | 6,183             | 6,373             | 6,574             | 6,795             | 7,033             | 7,235             | 7,462             | 7,708             | 7,978             | 8,274             |
| <b>Total current liabilities</b>                  | <b>1,007,228</b>  | <b>1,028,654</b>  | <b>1,232,746</b>  | <b>1,305,128</b>  | <b>1,390,553</b>  | <b>1,466,617</b>  | <b>1,550,457</b>  | <b>1,633,923</b>  | <b>1,709,207</b>  | <b>1,771,132</b>  | <b>1,813,076</b>  | <b>1,848,929</b>  | <b>1,885,501</b>  |
| Long-term portion of debt & notes payable         | 4,353,782         | 4,708,678         | 5,040,500         | 5,176,948         | 5,336,049         | 5,504,747         | 5,689,627         | 5,888,523         | 6,057,780         | 6,247,722         | 6,454,019         | 6,680,129         | 6,927,641         |
| Long-term portion of operating lease liabilities  | 160,033           | 147,223           | 129,628           | 137,692           | 139,131           | 140,401           | 141,521           | 142,508           | 143,379           | 144,147           | 144,824           | 145,422           | 145,948           |
| Long-term portion of contingent consideration     | 42,825            | 28,439            | 31,504            | 49,139            | 52,431            | 55,360            | 58,592            | 61,810            | 64,713            | 67,098            | 68,709            | 70,083            | 71,484            |
| Deferred income taxes                             | 818,622           | 760,044           | 850,921           | 850,922           | 850,922           | 850,922           | 850,922           | 850,922           | 850,922           | 850,922           | 850,922           | 850,922           | 850,922           |
| Other long-term liabilities                       | 416,851           | 455,888           | 421,080           | 535,845           | 571,739           | 603,687           | 638,928           | 674,017           | 705,673           | 731,681           | 749,243           | 764,228           | 779,512           |
| <b>Total liabilities</b>                          | <b>6,799,341</b>  | <b>7,128,926</b>  | <b>7,706,379</b>  | <b>8,055,674</b>  | <b>8,340,825</b>  | <b>8,621,734</b>  | <b>8,930,046</b>  | <b>9,251,702</b>  | <b>9,531,673</b>  | <b>9,812,702</b>  | <b>10,080,792</b> | <b>10,359,712</b> | <b>10,661,009</b> |
| Common shares & APIC                              | 4,290,260         | 4,200,923         | 3,892,509         | 3,912,704         | 3,912,704         | 3,912,704         | 3,892,509         | 3,892,509         | 3,892,509         | 3,892,509         | 3,892,509         | 3,892,509         | 3,892,509         |
| Accumulated other comprehensive income (loss)     | -10,963           | -651              | 39,584            | 39,584            | 39,584            | 39,584            | 39,584            | 39,584            | 39,584            | 39,584            | 39,584            | 39,584            | 39,584            |
| Retained earnings (accumulated deficit)           | 2,654,207         | 2,659,001         | 3,056,845         | 3,643,431         | 4,343,762         | 5,141,281         | 6,048,678         | 7,066,823         | 8,083,540         | 9,209,668         | 10,410,556        | 11,671,860        | 12,989,879        |
| Total Waste Connections' equity                   | 6,933,504         | 6,859,273         | 6,988,938         | 7,595,720         | 8,296,051         | 9,093,569         | 9,980,771         | 10,998,916        | 12,015,633        | 13,141,761        | 14,342,649        | 15,603,953        | 16,921,972        |
| Noncontrolling interest in subsidiaries           | 4,850             | 4,165             | 4,607             | 11,492            | 18,838            | 26,595            | 34,805            | 43,466            | 52,533            | 61,934            | 71,561            | 81,381            | 91,397            |
| Total equity                                      | 6,938,354         | 6,863,438         | 6,993,545         | 7,607,212         | 8,314,889         | 9,120,164         | 10,015,576        | 11,042,382        | 12,068,166        | 13,203,695        | 14,414,210        | 15,685,334        | 17,013,369        |
| <b>Total liabilities &amp; Equity</b>             | <b>13,737,695</b> | <b>13,992,364</b> | <b>14,699,924</b> | <b>15,662,886</b> | <b>16,655,714</b> | <b>17,741,898</b> | <b>18,945,622</b> | <b>20,294,084</b> | <b>21,599,839</b> | <b>23,016,396</b> | <b>24,495,002</b> | <b>26,045,046</b> | <b>27,674,378</b> |



**Waste Connections**
*Historical Cash Flow Statement*

| <b>Fiscal Years Ending Dec. 31</b>                                             | <b>2012</b>    | <b>2013</b>    | <b>2014</b>    | <b>2015</b>    | <b>2016</b>    | <b>2017</b>    | <b>2018</b>     | <b>2019</b>     | <b>2020</b>     | <b>2021</b>     |
|--------------------------------------------------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|-----------------|-----------------|-----------------|
| Net income (loss)                                                              | 94357          | 117970         | 126516         | 123876         | 247321         | 577420         | 547154          | 566681          | 203992          | 618489          |
| Loss on disposal of assets & impairments                                       | -              | -              | -              | -              | 26741          | 134491         | 10193           | 60592           | 445647          | 27727           |
| Depreciation                                                                   | -              | -              | -              | -              | 393600         | 530187         | 572708          | 618396          | 621102          | 673730          |
| Amortization of intangibles                                                    | 53585          | 62929          | 56421          | 43115          | 70312          | 102297         | 107779          | 125522          | 131302          | 139279          |
| Loss on early extinguishment of debt                                           | -              | -              | -              | -              | -              | -              | -               | -               | -               | 115288          |
| Deferred income taxes, net of acquisitions                                     | 17841          | 28908          | -350           | 5615           | 42298          | -153283        | 77859           | 54637           | -50487          | 14563           |
| Current period provision for expected credit losses                            | -              | -              | -              | -              | -              | -              | -               | -               | -               | 9719            |
| Amortization of debt issuance costs                                            | -              | -              | -              | -              | 4847           | 4341           | 4158            | 5001            | 7509            | 5055            |
| Share-based compensation                                                       | -              | -              | -              | -              | 44772          | 39361          | 43803           | 42671           | 45751           | 58221           |
| Interest accretion                                                             | -              | -              | -              | -              | 10505          | 13822          | 14861           | 16426           | 17205           | 15970           |
| Payment of contingent consideration recorded in earnings                       | -              | -              | -              | -              | -493           | -10012         | -11             | -               | -10371          | -520            |
| Adjustments to contingent consideration                                        | -              | -              | -              | -              | -2623          | 17754          | 349             | 1498            | 18418           | 2954            |
| Other adjustments                                                              | -              | -              | -              | -              | -              | -              | 943             | -2240           | 2426            | -1260           |
| Accounts receivable, net                                                       | -              | -              | -              | -              | -5252          | -38934         | -37724          | -22933          | 46841           | -54688          |
| Prepaid expenses & other current assets                                        | -              | -              | -              | -              | -21650         | -51457         | 39758           | 9135            | -17749          | -8229           |
| Accounts payable                                                               | -              | -              | -              | -              | 54219          | 50012          | 16135           | 71147           | -148362         | 66752           |
| Deferred revenue                                                               | -              | -              | -              | -              | 8016           | 4205           | 17916           | 19156           | 14981           | 31707           |
| Accrued liabilities                                                            | -              | -              | -              | -              | -70041         | -15002         | 1314            | -24039          | 88612           | 3853            |
| Capping, closure & post-closure expenditures                                   | -              | -              | -              | -              | -              | -8845          | -2702           | -5062           | -6484           | -21040          |
| Other long-term liabilities                                                    | -              | -              | -              | -              | -466           | -10708         | -3258           | -20140          | -1812           | 659             |
| <b>Net cash flows from operating activities</b>                                | <b>336761</b>  | <b>450735</b>  | <b>399726</b>  | <b>415015</b>  | <b>795312</b>  | <b>1187260</b> | <b>1411235</b>  | <b>1540547</b>  | <b>1408521</b>  | <b>1698229</b>  |
| Payments for acquisitions, net of cash acquired                                | -282313        | -3273          | -77698         | -139001        | -17131         | -410695        | -830091         | -736610         | -388789         | -960449         |
| Capital expenditures for property & equipment                                  | -              | -              | -              | -              | -344723        | -479287        | -546145         | -634406         | -597053         | -744315         |
| Investment in noncontrolling interest                                          | -              | -              | -              | -              | -              | -              | -               | -25000          | -               | -25000          |
| Proceeds from disposal of assets                                               | -              | -              | -              | -              | 4604           | 28432          | 5385            | 3566            | 19084           | 42768           |
| Other cash flows from investing activities                                     | -              | -              | -              | -              | -4485          | -2464          | -969            | 310             | -11777          | -6486           |
| <b>Net cash flows from investing activities</b>                                | <b>-530534</b> | <b>-261766</b> | <b>-289455</b> | <b>-311128</b> | <b>-296395</b> | <b>-966232</b> | <b>-1371820</b> | <b>-1426006</b> | <b>-1046043</b> | <b>-1693482</b> |
| Proceeds from long-term debt                                                   | 1924480        | 770139         | 358682         | 946133         | 3469289        | 973754         | 1022737         | 1575795         | 1815625         | 2112193         |
| Principal payments on notes payable & long-term debt                           | -              | -              | -              | -              | -3714044       | -770106        | -970773         | -1470711        | -1542958        | -1893100        |
| Premiums paid on early extinguishment of debt                                  | -              | -              | -              | -              | -              | -              | -               | -               | -               | -110617         |
| Payment of contingent consideration recorded at acquisition date               | -              | -              | -              | -              | -16322         | -17158         | -6127           | -3200           | -12566          | -12934          |
| Change in book overdraft                                                       | -              | -              | -              | -              | -1305          | 8241           | -839            | -2564           | 1096            | -367            |
| Payments for repurchase of common shares                                       | -65633         | 0              | 0              | 0              | 0              | 0              | -58928          | 0               | -105654         | -338993         |
| Payments for cash dividends                                                    | -              | -              | -              | -              | -92547         | -131975        | -152550         | -175067         | -199883         | -220203         |
| Tax withholdings related to net share settlements of equity-based compensation | -              | -              | -              | -              | -              | -              | -15032          | -17660          | -23446          | -18606          |
| Debt issuance costs                                                            | -              | -              | -              | -              | -13506         | -3667          | -8630           | -5953           | -11117          | -18521          |
| Proceeds from issuance of shares under employee share purchase plan            | -              | -              | -              | -              | -              | -              | -               | -               | -               | 1222            |
| Proceeds from sale of common shares held in trust                              | -              | -              | -              | -              | 19870          | 10814          | 2667            | 4036            | 679             | 430             |
| <b>Net cash flows from financing activities</b>                                | <b>209593</b>  | <b>-183512</b> | <b>-94747</b>  | <b>-98747</b>  | <b>-354869</b> | <b>56760</b>   | <b>-187578</b>  | <b>-95894</b>   | <b>-78224</b>   | <b>-499496</b>  |
| Effect of exchange rate changes on cash, cash equivalents & restricted cash    | -              | -              | -              | -              | -              | -              | -1290           | 608             | 6914            | -25             |
| Net increase (decrease) in cash, cash equivalents & restricted cash            | -              | -              | -              | -              | -              | -              | -149453         | 19255           | 291168          | -494774         |
| Cash, cash equivalents & restricted cash at beginning of year                  | -              | -              | -              | -              | -              | -              | 553227          | 403966          | 423221          | 714389          |
| Cash, cash equivalents & restricted cash at end of year                        | -              | -              | -              | -              | -              | -              | 403966          | 423221          | 714389          | 219615          |

**Waste Connections***Forecasted Cash Flow Statement*

| <i>Fiscal Years Ending Dec. 31</i>                | 2022E             | 2023E             | 2024E             | 2025E             | 2026E             | 2027E             | 2028E             | 2029E             | 2030E             | 2031E             |
|---------------------------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| <b>Cash From Operating Activities</b>             |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Adjustment to Reconcile Operating Cash            |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Net income (loss)                                 | 829,785           | 966,734           | 1,087,115         | 1,220,067         | 1,353,745         | 1,375,214         | 1,507,494         | 1,605,100         | 1,688,339         | 1,767,857         |
| Depreciation                                      | 675,666           | 683,772           | 690,921           | 697,226           | 702,787           | 707,690           | 712,015           | 715,829           | 719,193           | 722,159           |
| Amortization of intangibles                       | 137,771           | 119,458           | 103,820           | 89,002            | 75,122            | 182,406           | 142,097           | 110,696           | 86,234            | 67,177            |
| Accounts receivable, Net                          | -141,108          | -56,986           | -50,721           | -55,950           | -55,708           | -50,258           | -41,292           | -27,882           | -23,790           | -24,266           |
| Prepaid expenses & other current assets           | -38,695           | -14,363           | -12,784           | -14,102           | -14,041           | -12,667           | -10,407           | -7,027            | -5,996            | -6,116            |
| Accounts payable                                  | 85,976            | 32,075            | 28,549            | 31,492            | 31,356            | 28,289            | 23,242            | 15,694            | 13,391            | 13,659            |
| Book overdraft                                    | 6178              | 1,534             | 1,365             | 1,506             | 1,499             | 1,353             | 1,111             | 750               | 640               | 653               |
| Deferred revenue                                  | -3,996            | 18,067            | 16,081            | 17,739            | 17,662            | 15,934            | 13,092            | 8,840             | 7,543             | 7,694             |
| Accrued liabilities                               | 13,166            | 30,529            | 27,173            | 29,974            | 29,845            | 26,925            | 22,121            | 14,937            | 12,745            | 13,000            |
| Current portion of operating lease liabilities    | -6,625            | 328               | 289               | 255               | 225               | 199               | 175               | 154               | 136               | 120               |
| Current portion of contingent consideration       | -22,479           | 2,701             | 2,404             | 2,652             | 2,641             | 2,382             | 1,957             | 1,322             | 1,128             | 1,150             |
| Current portion of long-term debt & notes payable | 163               | 190               | 201               | 221               | 238               | 202               | 227               | 246               | 270               | 296               |
| <b>Net Cash from Operations</b>                   | <b>153,580</b>    | <b>178,401</b>    | <b>189,416</b>    | <b>202,084</b>    | <b>214,537</b>    | <b>227,670</b>    | <b>237,183</b>    | <b>243,860</b>    | <b>249,983</b>    | <b>256,338</b>    |
| <b>Cash from Investing Activities</b>             |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Restricted cash                                   | -8,382            | -5,396            | -4,803            | -5,298            | -5,275            | -4,759            | -3,910            | -2,640            | -2,253            | -2,298            |
| Restricted investments                            | -1,770            | -1,824            | -1,878            | -1,935            | -1,993            | -2,052            | -2,114            | -2,177            | -2,243            | -2,310            |
| Property & equipment, gross                       | -744,315          | -744,315          | -744,315          | -744,315          | -744,315          | -744,315          | -744,315          | -744,315          | -744,315          | -744,315          |
| Operating lease right-of-use assets               | -1,926            | -1,699            | -1,498            | -1,321            | -1,165            | -1,028            | -906              | -799              | -705              | -622              |
| Goodwill                                          | -270,267          | -430,211          | -458,870          | -489,439          | -522,044          | -556,822          | -593,916          | -633,481          | -675,682          | -720,694          |
| Other assets, net                                 | -914              | -7,778            | -6,923            | -7,637            | -7,604            | -6,860            | -5,636            | -3,806            | -3,247            | -3,312            |
| <b>Net Cash from Investing</b>                    | <b>-1,027,575</b> | <b>-1,191,222</b> | <b>-1,218,288</b> | <b>-1,249,945</b> | <b>-1,282,396</b> | <b>-1,315,836</b> | <b>-1,350,797</b> | <b>-1,387,218</b> | <b>-1,428,445</b> | <b>-1,473,551</b> |
| <b>Cash from Financing Activities</b>             |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Long-term portion of debt & notes payable         | 136,448           | 159,100           | 168,698           | 184,880           | 198,896           | 169,257           | 189,942           | 206,297           | 226,110           | 247,513           |
| Long-term portion of operating lease liabilities  | 8,064             | 1,440             | 1,270             | 1,120             | 987               | 871               | 768               | 677               | 597               | 527               |
| Long-term portion of contingent consideration     | 17,635            | 3,292             | 2,930             | 3,232             | 3,218             | 2,903             | 2,385             | 1,610             | 1,374             | 1,402             |
| Deferred income taxes                             | 1                 | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| Other long-term liabilities                       | 114,765           | 35,894            | 31,948            | 35,241            | 35,089            | 31,656            | 26,008            | 17,562            | 14,985            | 15,285            |
| Common shares                                     | 20,195            | 0                 | 0                 | -20,195           | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| Additional paid-in capital                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| Accumulated other comprehensive income (loss)     | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| Dividends Paid                                    | -243,199          | -266,403          | -289,597          | -312,670          | -335,599          | -358,497          | -381,367          | -404,212          | -427,035          | -449,838          |
| Noncontrolling interest in subsidiaries           | 6,885             | 7,346             | 7,757             | 8,210             | 8,661             | 9,067             | 9,401             | 9,627             | 9,820             | 10,016            |
| <b>Net Cash from Financing</b>                    | <b>60,794</b>     | <b>(59,332)</b>   | <b>(76,995)</b>   | <b>(100,183)</b>  | <b>(88,749)</b>   | <b>(144,743)</b>  | <b>(152,862)</b>  | <b>(168,438)</b>  | <b>(174,149)</b>  | <b>(175,097)</b>  |
| <b>Net Cash</b>                                   | <b>569,020</b>    | <b>533,488</b>    | <b>599,133</b>    | <b>669,956</b>    | <b>774,226</b>    | <b>817,091</b>    | <b>868,174</b>    | <b>883,004</b>    | <b>897,239</b>    | <b>914,735</b>    |
| <b>Cash at the Beginning of the Year</b>          | <b>147,441</b>    | <b>716,461</b>    | <b>1,249,949</b>  | <b>1,849,082</b>  | <b>2,519,038</b>  | <b>3,293,264</b>  | <b>4,110,355</b>  | <b>4,978,530</b>  | <b>5,861,533</b>  | <b>6,758,773</b>  |
| <b>Cash at the End of the Year</b>                | <b>716,461</b>    | <b>1,249,949</b>  | <b>1,849,082</b>  | <b>2,519,038</b>  | <b>3,293,264</b>  | <b>4,110,355</b>  | <b>4,978,530</b>  | <b>5,861,533</b>  | <b>6,758,773</b>  | <b>7,673,508</b>  |

**Waste Connections**
*Common Size Income Statement*

| <i>Fiscal Years Ending Dec. 31</i>                        | 2019          | 2020         | 2021          | 2022E         | 2023E         | 2024E         | 2025E         | 2026E         | 2027E         | 2028E         | 2029E         | 2030E         | 2031E         |
|-----------------------------------------------------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Revenues                                                  | 5388679       | 5445990      | 6151361       | 100.00%       | 100.00%       | 100.00%       | 100.00%       | 100.00%       | 100.00%       | 100.00%       | 100.00%       | 100.00%       | 100.00%       |
| Cost of operations                                        | 59.36%        | 60.17%       | 59.40%        | 58.92%        | 58.92%        | 58.92%        | 58.92%        | 58.92%        | 58.92%        | 58.92%        | 58.92%        | 58.92%        | 58.92%        |
| Selling, general & administrative                         | 10.14%        | 9.87%        | 9.95%         | 10.95%        | 10.95%        | 10.95%        | 10.95%        | 10.95%        | 10.95%        | 10.95%        | 10.95%        | 10.95%        | 10.95%        |
| Depreciation                                              | 11.48%        | 11.40%       | 10.95%        | 9.81%         | 9.31%         | 8.91%         | 8.49%         | 8.11%         | 7.80%         | 7.57%         | 7.44%         | 7.32%         | 7.21%         |
| Amortization of intangibles                               | 2.33%         | 2.41%        | 2.26%         | 2.00%         | 1.63%         | 1.34%         | 1.08%         | 0.87%         | 2.01%         | 1.51%         | 1.15%         | 0.88%         | 0.67%         |
| Impairments & other operating items                       | 1.15%         | 8.57%        | 0.53%         | 0.50%         | 0.50%         | 0.51%         | 0.51%         | 0.51%         | 0.51%         | 0.52%         | 0.53%         | 0.54%         | 0.56%         |
| <b>Operating income (loss)</b>                            | <b>15.55%</b> | <b>7.57%</b> | <b>16.90%</b> | <b>17.81%</b> | <b>18.69%</b> | <b>19.38%</b> | <b>20.05%</b> | <b>20.64%</b> | <b>19.80%</b> | <b>20.53%</b> | <b>21.01%</b> | <b>21.38%</b> | <b>21.69%</b> |
| Interest expense                                          | 2.73%         | 2.98%        | 2.65%         | 3.34%         | 3.21%         | 3.13%         | 3.05%         | 2.99%         | 2.95%         | 2.93%         | 2.94%         | 2.98%         | 3.02%         |
| Interest income                                           | 0.18%         | 0.10%        | 0.05%         | 0.02%         | 0.25%         | 0.44%         | 0.63%         | 0.83%         | 1.04%         | 1.27%         | 1.51%         | 1.74%         | 1.98%         |
| Other income (expense), net                               | 0.11%         | -0.03%       | 0.10%         | 0.10%         | 0.10%         | 0.10%         | 0.10%         | 0.10%         | 0.10%         | 0.10%         | 0.10%         | 0.10%         | 0.10%         |
| Gain (loss) on extinguishment of debt                     | -             | -            | -1.87%        | NA            | NA            | NA            | NA            | NA            | NA            | NA            | NA            | NA            | NA            |
| Income (loss) before income tax provision (benefit)       | 13.10%        | 4.66%        | 12.53%        | 14.60%        | 15.83%        | 16.78%        | 17.73%        | 18.58%        | 18.00%        | 18.97%        | 19.68%        | 20.25%        | 20.75%        |
| Income tax provision (benefit)                            | 2.58%         | 0.92%        | 2.48%         | 2.54%         | 2.67%         | 2.77%         | 2.86%         | 2.95%         | 2.83%         | 2.93%         | 3.00%         | 3.06%         | 3.10%         |
| <b>Net income (loss)</b>                                  | <b>10.52%</b> | <b>3.75%</b> | <b>10.05%</b> | <b>12.05%</b> | <b>13.16%</b> | <b>14.01%</b> | <b>14.86%</b> | <b>15.63%</b> | <b>15.17%</b> | <b>16.03%</b> | <b>16.67%</b> | <b>17.19%</b> | <b>17.65%</b> |
| Less: net income attributable to noncontrolling interests | 0.00%         | 0.01%        | -0.01%        | -0.01%        | -0.01%        | -0.01%        | -0.01%        | -0.01%        | 0.00%         | 0.00%         | 0.00%         | 0.00%         | 0.00%         |
| Net income (loss) attributable to Waste Connections       | 10.52%        | 3.76%        | 10.05%        | 12.06%        | 13.17%        | 14.02%        | 14.87%        | 15.64%        | 15.17%        | 16.04%        | 16.68%        | 17.20%        | 17.65%        |

**Waste Connections**
*Common Size Balance Sheet*

| <i>Fiscal Years Ending Dec. 31</i>                | 2019           | 2020           | 2021           | 2022E          | 2023E          | 2024E          | 2025E          | 2026E          | 2027E          | 2028E          | 2029E          | 2030E          | 2031E          |
|---------------------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Cash & equivalents                                | 6.06%          | 11.33%         | 2.40%          | 10.41%         | 17.01%         | 23.84%         | 30.68%         | 38.03%         | 45.33%         | 52.95%         | 60.89%         | 68.83%         | 76.61%         |
| Accounts receivable, gross                        | 12.60%         | 11.93%         | 11.84%         | 12.70%         | 12.70%         | 12.70%         | 12.70%         | 12.70%         | 12.70%         | 12.70%         | 12.70%         | 12.70%         | 12.70%         |
| Allowance for doubtful accounts                   | 0.30%          | 0.36%          | 0.30%          | 0.34%          | 0.34%          | 0.34%          | 0.34%          | 0.34%          | 0.34%          | 0.34%          | 0.34%          | 0.34%          | 0.34%          |
| Accounts receivable, Net                          | 12.30%         | 11.57%         | 11.54%         | 12.36%         | 12.36%         | 12.36%         | 12.36%         | 12.36%         | 12.36%         | 12.36%         | 12.36%         | 12.36%         | 12.36%         |
| Prepaid expenses & other current assets           | 2.62%          | 2.95%          | 2.86%          | 3.11%          | 3.11%          | 3.11%          | 3.11%          | 3.11%          | 3.11%          | 3.11%          | 3.11%          | 3.11%          | 3.11%          |
| <b>Total current assets</b>                       | <b>20.98%</b>  | <b>25.86%</b>  | <b>16.79%</b>  | <b>25.88%</b>  | <b>32.48%</b>  | <b>39.31%</b>  | <b>46.15%</b>  | <b>53.50%</b>  | <b>60.80%</b>  | <b>68.42%</b>  | <b>76.36%</b>  | <b>84.30%</b>  | <b>92.08%</b>  |
| Restricted cash                                   | 1.79%          | 1.78%          | 1.17%          | 1.17%          | 1.17%          | 1.17%          | 1.17%          | 1.17%          | 1.17%          | 1.17%          | 1.17%          | 1.17%          | 1.17%          |
| Restricted investments                            | 0.95%          | 1.06%          | 0.96%          | 0.88%          | 0.85%          | 0.83%          | 0.81%          | 0.79%          | 0.78%          | 0.77%          | 0.78%          | 0.78%          | 0.79%          |
| Property & equipment, gross                       | 166.33%        | 170.56%        | 167.07%        | 160.07%        | 160.15%        | 161.27%        | 161.45%        | 161.64%        | 162.59%        | 164.73%        | 168.60%        | 172.87%        | 176.92%        |
| Less accumulated depreciation & depletion         | 63.96%         | 73.53%         | 74.05%         | 75.97%         | 80.51%         | 85.15%         | 88.95%         | 92.43%         | 96.09%         | 100.25%        | 105.34%        | 110.59%        | 115.64%        |
| Property & equipment, net                         | 102.37%        | 97.03%         | 93.02%         | 84.10%         | 79.65%         | 76.12%         | 72.50%         | 69.20%         | 66.50%         | 64.48%         | 63.26%         | 62.28%         | 61.28%         |
| Operating lease right-of-use assets               | 3.40%          | 3.14%          | 2.61%          | 2.36%          | 2.24%          | 2.14%          | 2.03%          | 1.94%          | 1.87%          | 1.81%          | 1.78%          | 1.75%          | 1.72%          |
| Goodwill                                          | 102.27%        | 105.15%        | 100.59%        | 93.79%         | 93.76%         | 94.72%         | 95.45%         | 96.51%         | 98.32%         | 101.15%        | 105.36%        | 110.17%        | 115.21%        |
| Intangible assets, net                            | 21.58%         | 21.21%         | 21.96%         | 17.62%         | 14.88%         | 12.76%         | 10.97%         | 9.53%          | 7.09%          | 5.33%          | 4.05%          | 3.10%          | 2.36%          |
| Other assets, net                                 | 1.60%          | 1.70%          | 1.87%          | 1.69%          | 1.69%          | 1.69%          | 1.69%          | 1.69%          | 1.69%          | 1.69%          | 1.69%          | 1.69%          | 1.69%          |
| <b>Total assets</b>                               | <b>254.94%</b> | <b>256.93%</b> | <b>238.97%</b> | <b>227.49%</b> | <b>226.72%</b> | <b>228.73%</b> | <b>230.77%</b> | <b>234.33%</b> | <b>238.22%</b> | <b>244.82%</b> | <b>254.44%</b> | <b>265.23%</b> | <b>276.30%</b> |
| Accounts payable                                  | 8.11%          | 5.34%          | 6.39%          | 6.95%          | 6.95%          | 6.95%          | 6.95%          | 6.95%          | 6.95%          | 6.95%          | 6.95%          | 6.95%          | 6.95%          |
| Book overdraft                                    | 0.30%          | 0.31%          | 0.27%          | 0.33%          | 0.33%          | 0.33%          | 0.33%          | 0.33%          | 0.33%          | 0.33%          | 0.33%          | 0.33%          | 0.33%          |
| Deferred revenue                                  | 4.02%          | 4.29%          | 4.45%          | 3.92%          | 3.92%          | 3.92%          | 3.92%          | 3.92%          | 3.92%          | 3.92%          | 3.92%          | 3.92%          | 3.92%          |
| Accrued liabilities                               | 5.22%          | 7.44%          | 7.20%          | 6.62%          | 6.62%          | 6.62%          | 6.62%          | 6.62%          | 6.62%          | 6.62%          | 6.62%          | 6.62%          | 6.62%          |
| Current portion of operating lease liabilities    | 0.56%          | 0.56%          | 0.62%          | 0.46%          | 0.43%          | 0.41%          | 0.39%          | 0.38%          | 0.36%          | 0.35%          | 0.34%          | 0.34%          | 0.33%          |
| Current portion of contingent consideration       | 0.49%          | 0.80%          | 1.02%          | 0.59%          | 0.59%          | 0.59%          | 0.59%          | 0.59%          | 0.59%          | 0.59%          | 0.59%          | 0.59%          | 0.59%          |
| Current portion of long-term debt & notes payable | 0.01%          | 0.15%          | 0.10%          | 0.09%          | 0.09%          | 0.08%          | 0.08%          | 0.08%          | 0.08%          | 0.08%          | 0.08%          | 0.08%          | 0.08%          |
| Total current liabilities                         | 18.69%         | 18.89%         | 20.04%         | 18.96%         | 18.93%         | 18.91%         | 18.89%         | 18.87%         | 18.85%         | 18.84%         | 18.83%         | 18.83%         | 18.82%         |
| Long-term portion of debt & notes payable         | 80.79%         | 86.46%         | 81.94%         | 75.19%         | 72.64%         | 70.97%         | 69.30%         | 67.99%         | 66.81%         | 66.45%         | 67.04%         | 68.03%         | 69.17%         |
| Long-term portion of operating lease liabilities  | 2.97%          | 2.70%          | 2.11%          | 2.00%          | 1.89%          | 1.81%          | 1.72%          | 1.65%          | 1.58%          | 1.53%          | 1.50%          | 1.48%          | 1.46%          |
| Long-term portion of contingent consideration     | 0.79%          | 0.52%          | 0.51%          | 0.71%          | 0.71%          | 0.71%          | 0.71%          | 0.71%          | 0.71%          | 0.71%          | 0.71%          | 0.71%          | 0.71%          |
| Deferred income taxes                             | 15.19%         | 13.96%         | 13.83%         | 12.36%         | 11.58%         | 10.97%         | 10.36%         | 9.83%          | 9.38%          | 9.05%          | 8.84%          | 8.67%          | 8.50%          |
| Other long-term liabilities                       | 7.74%          | 8.37%          | 6.85%          | 7.78%          | 7.78%          | 7.78%          | 7.78%          | 7.78%          | 7.78%          | 7.78%          | 7.78%          | 7.78%          | 7.78%          |
| <b>Total liabilities</b>                          | <b>126.18%</b> | <b>130.90%</b> | <b>125.28%</b> | <b>117.00%</b> | <b>113.54%</b> | <b>111.15%</b> | <b>108.77%</b> | <b>106.83%</b> | <b>105.12%</b> | <b>104.37%</b> | <b>104.71%</b> | <b>105.50%</b> | <b>106.44%</b> |
| Common shares                                     | 79.62%         | 77.14%         | 63.28%         | 56.83%         | 53.26%         | 50.44%         | 47.41%         | 44.95%         | 42.93%         | 41.40%         | 40.43%         | 39.64%         | 38.86%         |
| Accumulated other comprehensive income (loss)     | -0.20%         | -0.01%         | 0.64%          | 0.00%          | 0.00%          | 0.00%          | 0.00%          | 0.00%          | 0.00%          | 0.00%          | 0.00%          | 0.00%          | 0.00%          |
| Retained earnings (accumulated deficit)           | 49.26%         | 48.82%         | 49.69%         | 52.92%         | 59.13%         | 66.28%         | 73.68%         | 81.60%         | 89.15%         | 97.96%         | 108.14%        | 118.86%        | 129.69%        |
| Total Waste Connections' equity                   | 128.67%        | 125.95%        | 113.62%        | 110.32%        | 112.93%        | 117.23%        | 121.57%        | 127.00%        | 132.52%        | 139.78%        | 148.98%        | 158.91%        | 168.95%        |
| Noncontrolling interest in subsidiaries           | 0.09%          | 0.08%          | 0.07%          | 0.17%          | 0.26%          | 0.34%          | 0.42%          | 0.50%          | 0.58%          | 0.66%          | 0.74%          | 0.83%          | 0.91%          |
| Total equity                                      | 128.76%        | 126.03%        | 113.69%        | 110.49%        | 113.18%        | 117.58%        | 122.00%        | 127.50%        | 133.10%        | 140.44%        | 149.73%        | 159.73%        | 169.86%        |
| <b>Total liabilities &amp; Equity</b>             | <b>254.94%</b> | <b>256.93%</b> | <b>238.97%</b> | <b>227.49%</b> | <b>226.72%</b> | <b>228.73%</b> | <b>230.77%</b> | <b>234.33%</b> | <b>238.22%</b> | <b>244.82%</b> | <b>254.44%</b> | <b>265.23%</b> | <b>276.30%</b> |

**Waste Connections**
*Value Driver Estimation*

| <i>Fiscal Years Ending Dec. 31</i>                | 2019             | 2020             | 2021             | 2022E            | 2023E            | 2024E            | 2025E            | 2026E            | 2027E            | 2028E            | 2029E            | 2030E            | 2031E            |
|---------------------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| <b>NOPLAT:</b>                                    |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| <b>EBITA</b>                                      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Revenues                                          | 5,388,679        | 5,445,990        | 6,151,361        | 6,885,143        | 7,346,344        | 7,756,844        | 8,209,662        | 8,660,522        | 9,067,274        | 9,401,459        | 9,627,114        | 9,819,656        | 10,016,050       |
| Cost of operations                                | 3198757          | 3276808          | 3654074          | 4056726          | 4328466          | 4570332          | 4837133          | 5102779          | 5342438          | 5539340          | 5672296          | 5785742          | 5901456          |
| Selling, general & administrative                 | 546278           | 537632           | 612337           | 753923           | 804425           | 849374           | 898958           | 948327           | 992866           | 1029460          | 1054169          | 1075252          | 1096757          |
| Depreciation                                      | 618396           | 621102           | 673730           | 675666           | 683772           | 690921           | 697226           | 702787           | 707690           | 712015           | 715829           | 719193           | 722159           |
| Amortization of intangibles                       | 125522           | 131302           | 139279           | 137771           | 119458           | 103820           | 89002            | 75122            | 182406           | 142097           | 110696           | 86234            | 67177            |
| Impairments & other operating items               | 61948            | 466718           | 32316            | 34657            | 36997            | 39338            | 41678            | 44019            | 46359            | 48700            | 51040            | 53381            | 55721            |
| Implied Interest on Operating Leases              | 9459             | 8366             | 7793             | 7,076            | 7,161            | 7,236            | 7,302            | 7,360            | 7,412            | 7,457            | 7,497            | 7,532            | 7,563            |
| <b>EBITA</b>                                      | <b>847237</b>    | <b>420794</b>    | <b>1047418</b>   | <b>1233476</b>   | <b>1380387</b>   | <b>1510294</b>   | <b>1652967</b>   | <b>1794848</b>   | <b>1802925</b>   | <b>1937304</b>   | <b>2030581</b>   | <b>2107387</b>   | <b>2180341</b>   |
| <b>Adjusted Tax</b>                               |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Income Tax Provision (Benefit)                    | 139210           | 49922            | 152253           | 175222           | 196200           | 214749           | 235124           | 255387           | 256534           | 275727           | 289048           | 300017           | 310436           |
| Plus: Operating Lease Interest                    | 1351             | 1195             | 1113             | 1011             | 1023             | 1034             | 1043             | 1052             | 1059             | 1065             | 1071             | 1076             | 1081             |
| Plus: Interest Expense                            | 21055            | 23199            | 23259            | 32831            | 33700            | 34714            | 35788            | 36962            | 38223            | 39297            | 40500            | 41806            | 43236            |
| Less: Interest Income                             | -1397            | -751             | -417             | -216             | -2605            | -4861            | -7401            | -10242           | -13530           | -17005           | -20703           | -24473           | -28305           |
| Less: Other Income                                | -815             | 199              | -898             | -984             | -1050            | -1108            | -1173            | -1237            | -1295            | -1343            | -1375            | -1403            | -1431            |
| <b>Less: Adjusted Taxes</b>                       | <b>159405</b>    | <b>73765</b>     | <b>175311</b>    | <b>207864</b>    | <b>227268</b>    | <b>244529</b>    | <b>263381</b>    | <b>281922</b>    | <b>280991</b>    | <b>297742</b>    | <b>308541</b>    | <b>317023</b>    | <b>325016</b>    |
| Plus: Change in Deferred Taxes                    | 54637            | -50487           | 14563            | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                |
| <b>NOPLAT</b>                                     | <b>742469</b>    | <b>296542</b>    | <b>886669</b>    | <b>1025612</b>   | <b>1153119</b>   | <b>1265765</b>   | <b>1389585</b>   | <b>1512927</b>   | <b>1521934</b>   | <b>1639563</b>   | <b>1722040</b>   | <b>1790364</b>   | <b>1855325</b>   |
| <b>Invested Capital (IC):</b>                     |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| <b>Net Operating Working Capital</b>              |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Normal Cash                                       | 85,058           | 85,962           | 97,096           | 108,678          | 115,958          | 122,438          | 129,585          | 136,702          | 143,122          | 148,397          | 151,959          | 154,998          | 158,098          |
| Accounts receivable, Net                          | 662,808          | 630,264          | 709,614          | 850,722          | 907,708          | 958,429          | 1,014,379        | 1,070,086        | 1,120,344        | 1,161,636        | 1,189,518        | 1,213,308        | 1,237,574        |
| Prepaid expenses & other current assets           | 141,052          | 160,714          | 175,722          | 214,417          | 228,780          | 241,564          | 255,666          | 269,706          | 282,373          | 292,781          | 299,808          | 305,804          | 311,920          |
| Accounts payable                                  | 436970           | 290820           | 392868           | 478844           | 510919           | 539468           | 570961           | 602317           | 630605           | 653847           | 669541           | 682931           | 696590           |
| Book overdraft                                    | 15954            | 17079            | 16721            | 22899            | 24433            | 25798            | 27304            | 28803            | 30156            | 31268            | 32018            | 32658            | 33312            |
| Deferred revenue                                  | 216443           | 233596           | 273720           | 269724           | 287792           | 303873           | 321612           | 339274           | 355209           | 368300           | 377140           | 384683           | 392377           |
| Accrued liabilities                               | 281308           | 404923           | 442596           | 455762           | 486291           | 513464           | 543438           | 573283           | 600208           | 622329           | 637267           | 650012           | 663012           |
| Current portion of operating lease liabilities    | 29929            | 30671            | 38017            | 31392            | 31720            | 32009            | 32265            | 32490            | 32688            | 32863            | 33018            | 33154            | 33274            |
| Current portion of contingent consideration       | 26159            | 43297            | 62804            | 40325            | 43026            | 45430            | 48082            | 50723            | 53105            | 55063            | 56384            | 57512            | 58662            |
| Current portion of long-term debt & notes payable | 465              | 8268             | 6020             | 6183             | 6373             | 6574             | 6795             | 7033             | 7235             | 7462             | 7708             | 7978             | 8274             |
| <b>NOWC</b>                                       | <b>-71,962</b>   | <b>-95,696</b>   | <b>-189,556</b>  | <b>-70,837</b>   | <b>-75,582</b>   | <b>-79,805</b>   | <b>-84,464</b>   | <b>-89,102</b>   | <b>-93,287</b>   | <b>-96,725</b>   | <b>-99,047</b>   | <b>-101,028</b>  | <b>-103,048</b>  |
| Property & equipment, net                         | 5,516,347        | 5,284,506        | 5,721,949        | 5,790,598        | 5,851,141        | 5,904,534        | 5,951,623        | 5,993,151        | 6,029,776        | 6,062,076        | 6,090,562        | 6,115,684        | 6,137,839        |
| Intangible assets, net                            | 1,163,063        | 1,155,079        | 1,350,597        | 1,212,826        | 1,093,368        | 989,548          | 900,546          | 825,424          | 643,018          | 500,920          | 390,224          | 303,990          | 236,813          |
| Other assets, net                                 | 85,954           | 92,323           | 115,203          | 116,117          | 123,895          | 130,818          | 138,455          | 146,059          | 152,919          | 158,555          | 162,360          | 165,608          | 168,920          |
| <b>Invested Capital (IC):</b>                     | <b>7,024,284</b> | <b>6,761,746</b> | <b>7,289,948</b> | <b>7,352,539</b> | <b>7,305,575</b> | <b>7,266,028</b> | <b>7,235,646</b> | <b>7,213,451</b> | <b>7,078,183</b> | <b>6,977,514</b> | <b>6,902,404</b> | <b>6,847,759</b> | <b>6,809,259</b> |
| <b>NOPLAT</b>                                     | <b>742,469</b>   | <b>296,542</b>   | <b>886,669</b>   | <b>1,025,612</b> | <b>1,153,119</b> | <b>1,265,765</b> | <b>1,389,585</b> | <b>1,512,927</b> | <b>1,521,934</b> | <b>1,639,563</b> | <b>1,722,040</b> | <b>1,790,364</b> | <b>1,855,325</b> |
| <b>Change in IC</b>                               | <b>503,951</b>   | <b>-262,537</b>  | <b>528,202</b>   | <b>62,591</b>    | <b>-46,964</b>   | <b>-39,547</b>   | <b>-30,381</b>   | <b>-22,196</b>   | <b>-135,268</b>  | <b>-100,669</b>  | <b>-75,109</b>   | <b>-54,645</b>   | <b>-38,501</b>   |
| <b>FCF</b>                                        | <b>238,518</b>   | <b>559,080</b>   | <b>358,468</b>   | <b>963,021</b>   | <b>1,200,083</b> | <b>1,305,313</b> | <b>1,419,967</b> | <b>1,535,122</b> | <b>1,657,202</b> | <b>1,740,232</b> | <b>1,797,149</b> | <b>1,845,009</b> | <b>1,893,826</b> |
| <b>Return on Invested Capital (ROIC):</b>         |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| <b>NOPLAT</b>                                     | <b>742,469</b>   | <b>296,542</b>   | <b>886,669</b>   | <b>1,025,612</b> | <b>1,153,119</b> | <b>1,265,765</b> | <b>1,389,585</b> | <b>1,512,927</b> | <b>1,521,934</b> | <b>1,639,563</b> | <b>1,722,040</b> | <b>1,790,364</b> | <b>1,855,325</b> |
| <b>Beginning IC</b>                               | <b>6,520,332</b> | <b>7,024,284</b> | <b>6,761,746</b> | <b>7,289,948</b> | <b>7,352,539</b> | <b>7,305,575</b> | <b>7,266,028</b> | <b>7,235,646</b> | <b>7,213,451</b> | <b>7,078,183</b> | <b>6,977,514</b> | <b>6,902,404</b> | <b>6,847,759</b> |
| <b>ROIC</b>                                       | <b>11.39%</b>    | <b>4.22%</b>     | <b>13.11%</b>    | <b>14.07%</b>    | <b>15.68%</b>    | <b>17.33%</b>    | <b>19.12%</b>    | <b>20.91%</b>    | <b>21.10%</b>    | <b>23.16%</b>    | <b>24.68%</b>    | <b>25.94%</b>    | <b>27.09%</b>    |
| <b>Economic Profit (EP):</b>                      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| <b>Beginning IC</b>                               | <b>6,520,332</b> | <b>7,024,284</b> | <b>6,761,746</b> | <b>7,289,948</b> | <b>7,352,539</b> | <b>7,305,575</b> | <b>7,266,028</b> | <b>7,235,646</b> | <b>7,213,451</b> | <b>7,078,183</b> | <b>6,977,514</b> | <b>6,902,404</b> | <b>6,847,759</b> |
| <b>x (ROIC - WACC)</b>                            | <b>4.90%</b>     | <b>-2.27%</b>    | <b>6.62%</b>     | <b>7.58%</b>     | <b>9.19%</b>     | <b>10.84%</b>    | <b>12.63%</b>    | <b>14.42%</b>    | <b>14.61%</b>    | <b>16.67%</b>    | <b>18.19%</b>    | <b>19.45%</b>    | <b>20.60%</b>    |
| <b>EP</b>                                         | <b>319,315</b>   | <b>-159,317</b>  | <b>447,848</b>   | <b>552,512</b>   | <b>675,957</b>   | <b>791,651</b>   | <b>918,038</b>   | <b>1,043,350</b> | <b>1,053,798</b> | <b>1,180,206</b> | <b>1,269,216</b> | <b>1,342,414</b> | <b>1,410,922</b> |

## Waste Connections

### Weighted Average Cost of Capital (WACC) Estimation

#### Cost of Equity:

|                       |              |
|-----------------------|--------------|
| Risk-Free Rate        | 3.00%        |
| Beta                  | 0.77         |
| Equity Risk Premium   | 5.15%        |
| <b>Cost of Equity</b> | <b>6.97%</b> |

#### ASSUMPTIONS:

10-year Treasury Bond  
Average 1yr, 2yr, and 5yr weely Beta from Bloomberg  
Henry Fund Equity-Risk Premium

#### Cost of Debt:

|                               |              |
|-------------------------------|--------------|
| Risk-Free Rate                | 3.00%        |
| Implied Default Premium       | 1.41%        |
| Pre-Tax Cost of Debt          | 4.41%        |
| Marginal Tax Rate             | 22%          |
| <b>After-Tax Cost of Debt</b> | <b>3.44%</b> |

10-year Treasury Bond

Yield on a Corporate Bond maturing in 2032

#### Market Value of Common Equity:

|                          |                          |
|--------------------------|--------------------------|
| Total Shares Outstanding | 258,600,000              |
| Current Stock Price      | \$140.39                 |
| <b>MV of Equity</b>      | <b>36,304,854,000.00</b> |

#### MV Weights

86.52%

#### Market Value of Debt:

|                         |                         |
|-------------------------|-------------------------|
| Short-Term Debt         | 23,000,000              |
| Current Portion of LTD  | 6,300,000               |
| Long-Term Debt          | 5,629,100,000           |
| PV of Operating Leases  | 164,498                 |
| <b>MV of Total Debt</b> | <b>5,658,564,497.87</b> |

13.48%

#### Market Value of the Firm

41,963,418,497.87

100.00%

Estimated WACC

6.49%

**Waste Connections***Discounted Cash Flow (DCF) and Economic Profit (EP) Valuation Models*

## Key Inputs:

|                     |        |
|---------------------|--------|
| CV Growth of NOPLAT | 3.63%  |
| CV Year ROIC        | 27.09% |
| WACC                | 6.49%  |
| Cost of Equity      | 6.97%  |

| <b>Fiscal Years Ending Dec. 31</b> | <b>2022E</b> | <b>2023E</b> | <b>2024E</b> | <b>2025E</b> | <b>2026E</b> | <b>2027E</b> | <b>2028E</b> | <b>2029E</b> | <b>2030E</b> | <b>2031E</b> |
|------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|

**DCF Model:**

|                       |         |           |           |           |           |           |           |           |           |            |
|-----------------------|---------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| Free Cash Flow (FCF)  | 963,021 | 1,200,083 | 1,305,313 | 1,419,967 | 1,535,122 | 1,657,202 | 1,740,232 | 1,797,149 | 1,845,009 | 1,893,826  |
| Continuing Value (CV) |         |           |           |           |           |           |           |           |           | 56,156,914 |
| PV of FCF             | 904,332 | 1,058,267 | 1,080,914 | 1,104,197 | 1,120,995 | 1,136,392 | 1,120,604 | 1,086,729 | 1,047,678 | 31888388.0 |

|                                                 |                  |
|-------------------------------------------------|------------------|
| Value of Operating Assets:                      | 41,548,497       |
| Non-Operating Adjustments                       |                  |
| Plus: Excess Cash                               | 607,783          |
| Plus: Restricted Cash                           | 72,174           |
| Plus: Restricted Investments                    | 59,014           |
| Less: Debt                                      | -5,658,564       |
| Less: ESOP                                      | -26,351          |
| Less: PV of Operating Leases                    | -160,567         |
| Less: Book Overdraft                            | -16,721          |
| Less: Current Portion of Operating Leases       | -38,017          |
| Less: Current Portion of Long-Term Debt & Notes | -6020.0          |
| Value of Equity                                 | 36,381,227.6     |
| Shares Outstanding                              | 259999.7         |
| Intrinsic Value of Last FYE                     | \$ 139.93        |
| <b>Implied Price as of Today</b>                | <b>\$ 145.60</b> |

**EP Model:**

|                       |         |         |         |         |           |           |           |           |           |            |
|-----------------------|---------|---------|---------|---------|-----------|-----------|-----------|-----------|-----------|------------|
| Economic Profit (EP)  | 552,512 | 675,957 | 791,651 | 918,038 | 1,043,350 | 1,053,798 | 1,180,206 | 1,269,216 | 1,342,414 | 1,410,922  |
| Continuing Value (CV) |         |         |         |         |           |           |           |           |           | 49,309,154 |
| PV of EP              | 518,840 | 596,078 | 655,557 | 713,886 | 761,888   | 722,621   | 759,981   | 767,490   | 762,282   | 27,999,926 |

|                                                 |                  |
|-------------------------------------------------|------------------|
| Total PV of EP                                  | 34,258,549.3     |
| Invested Capital (last FYE)                     | 7,289,948.1      |
| Value of Operating Assets:                      | 41,548,497       |
| Non-Operating Adjustments                       |                  |
| Excess Cash                                     | 607,783          |
| Plus: Restricted Cash                           | 72,174           |
| Plus: Restricted Investments                    | 59,014           |
| Less: Debt                                      | -5,658,564       |
| Less: ESOP                                      | -26,351          |
| Less: PV of Operating Leases                    | -160,567         |
| Less: Book Overdraft                            | -16,721          |
| Less: Current Portion of Operating Leases       | -38,017          |
| Less: Current Portion of Long-Term Debt & Notes | -6,020           |
| Value of Equity                                 | 36,387,247.6     |
| Shares Outstanding                              | 259999.7         |
| Intrinsic Value of Last FYE                     | \$ 139.95        |
| <b>Implied Price as of Today</b>                | <b>\$ 145.60</b> |

## Waste Connections

Dividend Discount Model (DDM) or Fundamental P/E Valuation Model

| <b>Fiscal Years Ending Dec. 31</b> | <b>2022E</b> | <b>2023E</b> | <b>2024E</b> | <b>2025E</b> | <b>2026E</b> | <b>2027E</b> | <b>2028E</b> | <b>2029E</b> | <b>2030E</b> | <b>2031E</b> |
|------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|

|     |         |         |         |         |         |         |         |         |         |         |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| EPS | \$ 3.19 | \$ 3.72 | \$ 4.19 | \$ 4.70 | \$ 5.22 | \$ 5.31 | \$ 5.83 | \$ 6.21 | \$ 6.54 | \$ 6.86 |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|

### Key Assumptions

|                  |        |
|------------------|--------|
| CV growth of EPS | 3.00%  |
| CV Year ROE      | 11.27% |
| Cost of Equity   | 6.97%  |

### Future Cash Flows

|                        |      |      |      |      |      |      |      |      |      |           |
|------------------------|------|------|------|------|------|------|------|------|------|-----------|
| P/E Multiple (CV Year) |      |      |      |      |      |      |      |      |      | 18.51     |
| EPS (CV Year)          |      |      |      |      |      |      |      |      |      | \$ 6.86   |
| Future Stock Price     |      |      |      |      |      |      |      |      |      | \$ 126.91 |
| Dividends Per Share    | 0.94 | 1.03 | 1.12 | 1.21 | 1.30 | 1.39 | 1.48 | 1.57 | 1.66 |           |
| Discounted Cash Flows  | 0.87 | 0.90 | 0.91 | 0.92 | 0.92 | 0.92 | 0.92 | 0.91 | 0.90 | 69.23     |

Intrinsic Value as of Last FYE \$ 77.42

Implied Price as of Today \$ 80.55



## Waste Connections

### Relative Valuation Models

| Ticker | Company               | Price    | EPS     | EPS    | P/E 22       | P/E 23       | EV/EBITDA |                 |              |
|--------|-----------------------|----------|---------|--------|--------------|--------------|-----------|-----------------|--------------|
|        |                       |          | 2022E   | 2023E  |              |              | EV        | EBITDA          | 2022         |
| WM     | Waste Mangement       | \$173.76 | \$5.72  | \$6.38 | 30.30        | 27.20        | 84975.0   | 5,558.00        | 15.29        |
| RSG    | Republic Services     | \$146.70 | \$4.77  | \$5.38 | 30.80        | 27.30        | 58411.0   | 3,917.00        | 14.91        |
| GFL    | GFL Environment       | \$29.12  | \$0.52  | \$0.72 | 55.50        | 40.40        | 17120.0   | 1,343.00        | 12.75        |
| CLH    | Clean Harbors         | \$122.63 | \$6.81  | \$6.84 | 18.00        | 18.00        | 8827.0    | 992.00          | 8.90         |
| CWST   | Casella Waste Systems | \$84.52  | \$1.07  | \$1.28 | 78.60        | 66.00        | 4923.0    | 241.30          | 20.40        |
|        |                       |          | Average |        | <b>42.64</b> | <b>35.78</b> |           | <b>2,410.26</b> | <b>14.45</b> |
| WCN    | Waste Connections     | \$140.39 | \$3.19  | \$3.72 | 44.0         | 37.7         | 10.0      | 2,410.3         | 3.8          |

### Implied Relative Value:

|             |          |    |                  |
|-------------|----------|----|------------------|
| P/E (EPS22) | \$136.03 | \$ | <b>136.03</b>    |
| P/E (EPS23) | \$133.09 | \$ | <b>133.09</b>    |
| EV          | 34,828   | \$ | <b>76,891.65</b> |
|             |          | \$ | <b>537.47</b>    |

**Waste Connections***Effects of ESOP Exercise and Share Repurchases on Common Stock Account and Number of Shares Outstanding*

|                                              |             |
|----------------------------------------------|-------------|
| Number of Options Outstanding (shares):      | 578         |
| Average Time to Maturity (years):            | <u>3.00</u> |
| Expected Annual Number of Options Exercised: | 193         |

|                               |           |
|-------------------------------|-----------|
| Current Average Strike Price: | \$ 104.82 |
| Cost of Equity:               | 6.97%     |
| Current Stock Price:          | \$140.39  |

| <b>Fiscal Years Ending Dec. 31</b>          | <b>2022E</b>   | <b>2023E</b>   | <b>2024E</b>   | <b>2025E</b>   | <b>2026E</b>   | <b>2027E</b>   | <b>2028E</b>   | <b>2029E</b>   | <b>2030E</b>   | <b>2031E</b>   |
|---------------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Increase in Shares Outstanding:             | 193            | 193            | 193            |                |                |                |                |                |                |                |
| Average Strike Price:                       | \$ 104.82      | \$ 104.82      | \$ 104.82      | \$ 104.82      | \$ 104.82      | \$ 104.82      | \$ 104.82      | \$ 104.82      | \$ 104.82      | \$ 104.82      |
| <b>Increase in Common Stock Account:</b>    | <b>20,195</b>  | <b>20,195</b>  | <b>20,195</b>  | -              | -              | -              | -              | -              | -              | -              |
| Share Repurchases (\$)                      | 56,921         | 56,921         | 56,921         | 56,921         | 56,921         | 56,921         | 56,921         | 56,921         | 56,921         | 56,921         |
| Expected Price of Repurchased Shares:       | \$ 140.39      | \$ 149.33      | \$ 158.83      | \$ 168.94      | \$ 179.70      | \$ 191.13      | \$ 203.30      | \$ 216.24      | \$ 230.01      | \$ 244.65      |
| <b>Number of Shares Repurchased:</b>        | <b>405</b>     | <b>381</b>     | <b>358</b>     | <b>337</b>     | <b>317</b>     | <b>298</b>     | <b>280</b>     | <b>263</b>     | <b>247</b>     | <b>233</b>     |
| Shares Outstanding (beginning of the year)  | 260,212        | 260,000        | 259,811        | 259,645        | 259,309        | 258,992        | 258,694        | 258,414        | 258,151        | 257,903        |
| Plus: Shares Issued Through ESOP            | 193            | 193            | 193            | 0              | 0              | 0              | 0              | 0              | 0              | 0              |
| Less: Shares Repurchased in Treasury        | 405            | 381            | 358            | 337            | 317            | 298            | 280            | 263            | 247            | 233            |
| <b>Shares Outstanding (end of the year)</b> | <b>260,000</b> | <b>259,811</b> | <b>259,645</b> | <b>259,309</b> | <b>258,992</b> | <b>258,694</b> | <b>258,414</b> | <b>258,151</b> | <b>257,903</b> | <b>257,671</b> |

**Waste Connections***Valuation of Options Granted under ESOP*

|                                      |          |
|--------------------------------------|----------|
| Current Stock Price                  | \$140.39 |
| Risk Free Rate                       | 3.00%    |
| Current Dividend Yield               | 0.60%    |
| Annualized St. Dev. of Stock Returns | 21.14%   |

| Range of Outstanding Options | Number of Shares | Average Exercise Price | Average Remaining Life (yrs) | B-S Option Price | Value of Options Granted |
|------------------------------|------------------|------------------------|------------------------------|------------------|--------------------------|
| Range 1                      | 578              | 104.82                 | 3.00                         | \$ 45.59         | \$ 26,351                |
| Range 2                      |                  |                        |                              |                  |                          |
| Range 3                      |                  |                        |                              |                  |                          |
| Range 4                      |                  |                        |                              |                  |                          |
| Range 5                      |                  |                        |                              |                  |                          |
| Range 6                      |                  |                        |                              |                  |                          |
| Range 7                      |                  |                        |                              |                  |                          |
| Range 8                      |                  |                        |                              |                  |                          |
| Range 9                      |                  |                        |                              |                  |                          |
| <b>Total</b>                 | <b>578</b>       | <b>\$ 104.82</b>       | <b>3.00</b>                  | <b>\$ 47.80</b>  | <b>\$ 26,351</b>         |

**Waste Connections***Present Value of Operating Lease Obligations*

| <b>Fiscal Years Ending Dec. 31</b>        | <b>2011</b>   | <b>2012</b>   | <b>2013</b>   | <b>2014</b>   | <b>2015</b>     | <b>2016</b>     | <b>2017</b>     | <b>2018</b>     | <b>2019</b>     | <b>2020</b>     | <b>2021</b>   |
|-------------------------------------------|---------------|---------------|---------------|---------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|---------------|
| Year 1                                    | 300.0         | 310.0         | 320.0         | 330.0         | 26820.0         | 32510.0         | 37902.0         | 36718.0         | 36581.0         | 38956.0         | 400.0         |
| Year 2                                    | 250.0         | 260.0         | 270.0         | 280.0         | 21528.0         | 27326.0         | 35204.0         | 33432.0         | 34259.0         | 34060.0         | 350.0         |
| Year 3                                    | 225.0         | 230.0         | 235.0         | 240.0         | 17238.0         | 24499.0         | 32259.0         | 32087.0         | 30770.0         | 26066.0         | 275.0         |
| Year 4                                    | 175.0         | 180.0         | 185.0         | 190.0         | 14850.0         | 18518.0         | 30974.0         | 28750.0         | 23124.0         | 19310.0         | 225.0         |
| Year 5                                    | 100.0         | 104.0         | 108.0         | 112.0         | 12280.0         | 15378.0         | 27882.0         | 20382.0         | 17311.0         | 14455.0         | 140.0         |
| Thereafter                                | 290.0         | 300.0         | 310.0         | 320.0         | 69436.0         | 63895.0         | 94205.0         | 75716.0         | 68860.0         | 62747.0         | 390.0         |
| Total Minimum Payments                    | 1340.0        | 1384.0        | 1428.0        | 1472.0        | 162152.0        | 182126.0        | 258426.0        | 227085.0        | 210905.0        | 195594.0        | 1780.0        |
| Less: Cumulative Interest                 | 182.7         | 188.7         | 194.6         | 200.5         | 30571.2         | 30274.2         | 43798.4         | 37247.1         | 34079.5         | 31096.1         | 242.1         |
| <b>PV of Minimum Payments</b>             | <b>1157.3</b> | <b>1195.3</b> | <b>1233.4</b> | <b>1271.5</b> | <b>131580.8</b> | <b>151851.8</b> | <b>214627.6</b> | <b>189837.9</b> | <b>176825.5</b> | <b>164497.9</b> | <b>1537.9</b> |
| <b>Implied Interest in Year 1 Payment</b> |               | <b>51.0</b>   | <b>52.7</b>   | <b>54.4</b>   | <b>56.0</b>     | <b>5798.8</b>   | <b>6692.1</b>   | <b>9458.6</b>   | <b>8366.2</b>   | <b>7792.7</b>   | <b>7249.4</b> |
| Pre-Tax Cost of Debt                      | 4.41%         | 4.41%         | 4.41%         | 4.41%         | 4.41%           | 4.41%           | 4.41%           | 4.41%           | 4.41%           | 4.41%           | 4.41%         |
| Years Implied by Year 6 Payment           | 2.9           | 2.9           | 2.9           | 2.9           | 5.7             | 4.2             | 3.4             | 3.7             | 4.0             | 4.3             | 2.8           |
| Expected Obligation in Year 6 & Beyond    | 100           | 104           | 108           | 112           | 12280           | 15378           | 27882           | 20382           | 17311           | 14455           | 140           |
| <b>Present Value of Lease Payments</b>    |               |               |               |               |                 |                 |                 |                 |                 |                 |               |
| PV of Year 1                              | 287.3         | 296.9         | 306.5         | 316.1         | 25687.9         | 31137.8         | 36302.2         | 35168.1         | 35036.9         | 37311.7         | 383.1         |
| PV of Year 2                              | 229.3         | 238.5         | 247.7         | 256.9         | 19749.0         | 25067.8         | 32294.8         | 30669.2         | 31427.9         | 31245.4         | 321.1         |
| PV of Year 3                              | 197.7         | 202.1         | 206.5         | 210.9         | 15146.0         | 21525.8         | 28344.1         | 28192.9         | 27035.8         | 22902.6         | 241.6         |
| PV of Year 4                              | 147.3         | 151.5         | 155.7         | 159.9         | 12497.1         | 15583.9         | 26066.3         | 24194.7         | 19460.1         | 16250.4         | 189.3         |
| PV of Year 5                              | 80.6          | 83.8          | 87.1          | 90.3          | 9898.1          | 12395.1         | 22473.8         | 16428.5         | 13953.2         | 11651.2         | 112.8         |
| PV of 6 & beyond                          | 215.0         | 222.5         | 230.0         | 237.5         | 48602.8         | 46141.4         | 69146.6         | 55184.4         | 49911.6         | 45136.6         | 289.9         |
| Capitalized PV of Payments                | 1157.3        | 1195.3        | 1233.4        | 1271.5        | 131580.8        | 151851.8        | 214627.6        | 189837.9        | 176825.5        | 164497.9        | 1537.9        |

**Waste Connections***Key Management Ratios*

| <i>Fiscal Years Ending Dec. 31</i>                        | 2012    | 2013   | 2014   | 2015   | 2016    | 2017    | 2018    | 2019    | 2020    | 2021   | 2022E   | 2023E   | 2024E   | 2025E   | 2026E   | 2027E   | 2028E   | 2029E   | 2030E   | 2031E   |
|-----------------------------------------------------------|---------|--------|--------|--------|---------|---------|---------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>Liquidity Ratios:</b>                                  |         |        |        |        |         |         |         |         |         |        |         |         |         |         |         |         |         |         |         |         |
| Cash Ratio (Cash/Current Liabilites)                      | 9.74%   | 10.59% | 12.60% | 11.92% | 22.30%  | 54.05%  | 37.10%  | 32.44%  | 60.01%  | 11.96% | 54.90%  | 89.89%  | 126.08% | 162.47% | 201.56% | 240.48% | 281.09% | 323.29% | 365.55% | 406.97% |
| Quick Ratio (Cash + AR / Current Liabilites)              | 87.48%  | 86.61% | 78.03% | 81.10% | 92.39%  | 123.13% | 107.92% | 98.24%  | 121.28% | 69.52% | 120.08% | 155.17% | 191.43% | 227.90% | 267.05% | 306.03% | 346.68% | 388.90% | 431.17% | 472.61% |
| Current Ratio (Current Assets/Current Liabilites)         | 101.86% | 99.90% | 89.47% | 91.70% | 120.28% | 146.63% | 126.98% | 112.25% | 136.90% | 83.78% | 136.51% | 171.62% | 207.90% | 244.38% | 283.55% | 322.55% | 363.21% | 405.44% | 447.71% | 489.15% |
| <b>Asset-Management Ratios:</b>                           |         |        |        |        |         |         |         |         |         |        |         |         |         |         |         |         |         |         |         |         |
| Receivables Turnover (Sales/Account Receivables)          | 7.94    | 8.83   | 9.29   | 9.27   | 6.96    | 8.35    | 8.08    | 8.13    | 8.64    | 8.67   | 8.09    | 8.09    | 8.09    | 8.09    | 8.09    | 8.09    | 8.09    | 8.09    | 8.09    | 8.09    |
| Average Collection Period (365/(Sales/Accounts Receivab   | 45.98   | 41.35  | 39.28  | 39.36  | 52.45   | 43.71   | 45.19   | 44.90   | 42.24   | 42.11  | 45.10   | 45.10   | 45.10   | 45.10   | 45.10   | 45.10   | 45.10   | 45.10   | 45.10   | 45.10   |
| Total Asset Turnover (Sales/Total Assets)                 | 0.55    | 0.60   | 0.60   | 0.59   | 0.30    | 0.39    | 0.39    | 0.39    | 0.39    | 0.42   | 0.44    | 0.44    | 0.44    | 0.43    | 0.43    | 0.42    | 0.41    | 0.39    | 0.38    | 0.36    |
| <b>Financial Leverage Ratios:</b>                         |         |        |        |        |         |         |         |         |         |        |         |         |         |         |         |         |         |         |         |         |
| Long-Term Debt to Assets (Long-term Debt/Total Assets)    | 0.48    | 0.45   | 0.46   | 0.48   | 0.32    | 0.32    | 0.33    | 0.32    | 0.34    | 0.34   | 0.33    | 0.32    | 0.31    | 0.30    | 0.29    | 0.28    | 0.27    | 0.26    | 0.26    | 0.25    |
| Debt to Capital (Total Debt/Total Liabilities & Equity)   | 0.63    | 0.62   | 0.64   | 0.65   | 0.49    | 0.48    | 0.49    | 0.49    | 0.51    | 0.52   | 0.51    | 0.50    | 0.49    | 0.47    | 0.46    | 0.44    | 0.43    | 0.41    | 0.40    | 0.39    |
| Debt to EBIT (Total Debt/Earnings Before Interest & Taxe: | 9.27    | 9.03   | 8.91   | 9.50   | 12.24   | 9.15    | 7.41    | 8.12    | 17.29   | 7.41   | 6.57    | 6.07    | 5.74    | 5.43    | 5.18    | 5.31    | 5.08    | 4.98    | 4.93    | 4.91    |
| <b>Profitability Ratios:</b>                              |         |        |        |        |         |         |         |         |         |        |         |         |         |         |         |         |         |         |         |         |
| Return on Equity (NI/Beg TSE)                             | 0.00    | 0.00   | 0.00   | 0.00   | 0.00    | 10.21%  | 8.72%   | 8.77%   | 2.94%   | 9.01%  | 11.87%  | 12.71%  | 13.07%  | 13.38%  | 13.52%  | 12.45%  | 12.49%  | 12.16%  | 11.71%  | 11.27%  |
| Profit Margin (Net Income/Revenue)                        | 4.97%   | 5.82%  | 6.30%  | 6.43%  | 7.33%   | 12.47%  | 11.11%  | 10.52%  | 3.75%   | 10.05% | 12.05%  | 13.16%  | 14.01%  | 14.86%  | 15.63%  | 15.17%  | 16.03%  | 16.67%  | 17.19%  | 17.65%  |
| Return on Assets (Net Income/Total Assets)                | 2.71%   | 3.48%  | 3.75%  | 3.82%  | 2.21%   | 4.81%   | 4.33%   | 4.13%   | 1.46%   | 4.21%  | 5.30%   | 5.80%   | 6.13%   | 6.44%   | 6.67%   | 6.37%   | 6.55%   | 6.55%   | 6.48%   | 6.39%   |
| <b>Payout Policy Ratios:</b>                              |         |        |        |        |         |         |         |         |         |        |         |         |         |         |         |         |         |         |         |         |
| Dividend Payout Ratio (Dividend/EPS)                      | 0.00    | 0.00   | 0.00   | 0.00   | 0.38    | 0.23    | 0.28    | 0.31    | 0.97    | 0.36   | 0.29    | 0.28    | 0.27    | 0.26    | 0.25    | 0.26    | 0.25    | 0.25    | 0.25    | 0.25    |
| Total Payout Ratio ((Divs. + Repurchases)/NI)             | 69.56%  | 0.00%  | 0.00%  | 0.00%  | 37.42%  | 22.86%  | 38.65%  | 30.89%  | 149.78% | 90.41% | 36.17%  | 33.44%  | 31.87%  | 30.29%  | 29.00%  | 30.21%  | 29.07%  | 28.73%  | 28.66%  | 28.67%  |
| Dividends to Net Income Ratio (Dividends/NI)              | 0       | 0      | 0      | 0      | 37.42%  | 22.86%  | 27.88%  | 30.89%  | 97.99%  | 35.60% | 29.31%  | 27.56%  | 26.64%  | 25.63%  | 24.79%  | 26.07%  | 25.30%  | 25.18%  | 25.29%  | 25.45%  |

**Waste Connections**

*Sensitivity Tables*

| DCF              |        | Risk-Free Rate |        |        |        |        |        |        |
|------------------|--------|----------------|--------|--------|--------|--------|--------|--------|
|                  | 145.60 | 2.80%          | 2.90%  | 3.00%  | 3.10%  | 3.20%  | 3.30%  | 3.40%  |
| NOPLAT CV Growth | 3.25%  | 140.74         | 136.51 | 132.51 | 128.72 | 125.11 | 121.68 | 118.42 |
|                  | 3.50%  | 150.21         | 145.36 | 140.79 | 136.47 | 132.39 | 128.52 | 124.85 |
|                  | 3.75%  | 161.53         | 155.87 | 150.57 | 145.60 | 140.91 | 136.50 | 132.33 |
|                  | 4.00%  | 175.29         | 168.57 | 162.32 | 156.49 | 151.04 | 145.93 | 141.12 |
|                  | 4.02%  | 176.52         | 169.70 | 163.37 | 157.46 | 151.93 | 146.76 | 141.89 |
|                  | 4.50%  | 214.16         | 203.98 | 194.69 | 186.16 | 178.32 | 171.07 | 164.36 |
|                  | 5.00%  | 282.56         | 264.63 | 248.77 | 234.65 | 221.99 | 210.59 | 200.25 |

| DCF  |        | CAPEX Assumption |            |            |            |            |            |            |
|------|--------|------------------|------------|------------|------------|------------|------------|------------|
|      | 145.60 | \$ 675,000       | \$ 700,000 | \$ 725,000 | \$ 744,315 | \$ 750,000 | \$ 775,000 | \$ 800,000 |
| SGA% | 10.80% | 157.10           | 153.28     | 149.52     | 146.65     | 145.81     | 142.15     | 138.55     |
|      | 10.90% | 156.41           | 152.59     | 148.82     | 145.95     | 145.11     | 141.45     | 137.84     |
|      | 10.95% | 156.07           | 152.25     | 148.48     | 145.60     | 144.76     | 141.09     | 137.48     |
|      | 11.00% | 155.73           | 151.90     | 148.13     | 145.25     | 144.41     | 140.74     | 137.13     |
|      | 11.10% | 155.05           | 151.21     | 147.43     | 144.55     | 143.71     | 140.03     | 136.41     |
|      | 11.20% | 154.37           | 150.52     | 146.74     | 143.85     | 143.01     | 139.33     | 135.70     |
|      | 11.30% | 153.68           | 149.84     | 146.04     | 143.15     | 142.31     | 138.62     | 134.99     |

| DCF  |        | Equity-Risk Premium |        |        |        |        |        |        |
|------|--------|---------------------|--------|--------|--------|--------|--------|--------|
|      | 145.60 | 4.95%               | 5.05%  | 5.15%  | 5.25%  | 5.35%  | 5.45%  | 6.00%  |
| Beta | 0.75   | 158.92              | 154.75 | 150.77 | 146.97 | 143.35 | 139.88 | 123.20 |
|      | 0.76   | 156.14              | 152.05 | 148.14 | 144.42 | 140.86 | 137.45 | 121.07 |
|      | 0.77   | 153.45              | 149.43 | 145.60 | 141.94 | 138.44 | 135.09 | 119.00 |
|      | 0.78   | 150.85              | 146.90 | 143.13 | 139.54 | 136.10 | 132.81 | 116.99 |
|      | 0.79   | 148.32              | 144.44 | 140.74 | 137.21 | 133.83 | 130.60 | 115.04 |
|      | 0.80   | 145.87              | 142.06 | 138.42 | 134.95 | 131.62 | 128.45 | 113.14 |
|      | 0.81   | 143.49              | 139.74 | 136.16 | 132.75 | 129.48 | 126.36 | 111.30 |

| DCF                  |        | Cost of Operations |        |        |        |        |        |        |
|----------------------|--------|--------------------|--------|--------|--------|--------|--------|--------|
|                      | 145.60 | 58.00%             | 58.50% | 58.92% | 59.00% | 59.50% | 60.00% | 60.50% |
| Long-term Debt Assun | 27.50% | 148.27             | 144.76 | 141.82 | 141.26 | 137.77 | 134.28 | 130.80 |
|                      | 30.00% | 149.59             | 146.09 | 143.14 | 142.59 | 139.09 | 135.60 | 132.12 |
|                      | 32.50% | 150.92             | 147.41 | 144.47 | 143.91 | 140.41 | 136.93 | 133.44 |
|                      | 34.64% | 152.05             | 148.54 | 145.60 | 145.04 | 141.55 | 138.06 | 134.57 |
|                      | 37.50% | 153.57             | 150.06 | 147.12 | 146.56 | 143.06 | 139.57 | 136.09 |
|                      | 40.00% | 154.89             | 151.38 | 148.44 | 147.88 | 144.38 | 140.89 | 137.41 |
|                      | 42.50% | 156.22             | 152.71 | 149.76 | 149.20 | 145.70 | 142.21 | 138.73 |

| DCF                  |        | WACC   |        |        |        |        |        |        |
|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|
|                      | 145.60 | 6.00%  | 6.25%  | 6.49%  | 6.75%  | 7.00%  | 7.25%  | 7.50%  |
| Pre-Tax Cost of Debt | 4.00%  | 180.42 | 161.46 | 146.37 | 132.64 | 121.43 | 111.77 | 103.35 |
|                      | 4.25%  | 179.79 | 160.91 | 145.89 | 132.21 | 121.05 | 111.41 | 103.02 |
|                      | 4.41%  | 179.39 | 160.56 | 145.58 | 131.94 | 120.80 | 111.19 | 102.81 |
|                      | 4.75%  | 178.53 | 159.82 | 144.92 | 131.35 | 120.27 | 110.70 | 102.37 |
|                      | 5.00%  | 177.90 | 159.28 | 144.44 | 130.93 | 119.88 | 110.35 | 102.04 |
|                      | 5.25%  | 177.28 | 158.73 | 143.96 | 130.50 | 119.49 | 110.00 | 101.72 |
|                      | 5.50%  | 176.65 | 158.19 | 143.48 | 130.07 | 119.11 | 109.64 | 101.39 |

| DDM             |         | CV ROE |        |        |        |        |        |        |
|-----------------|---------|--------|--------|--------|--------|--------|--------|--------|
|                 | 80.55   | 10.00% | 11.00% | 12.00% | 12.45% | 14.00% | 15.00% | 16.00% |
| Dividend Growth | \$ 0.03 | 76.26  | 78.97  | 81.23  | 82.13  | 84.78  | 86.20  | 87.45  |
|                 | \$ 0.06 | 76.75  | 79.44  | 81.69  | 82.58  | 85.22  | 86.63  | 87.86  |
|                 | \$ 0.09 | 77.23  | 79.91  | 82.14  | 83.03  | 85.65  | 87.05  | 88.28  |
|                 | \$ 0.12 | 77.72  | 80.38  | 82.60  | 83.48  | 86.08  | 87.47  | 88.69  |
|                 | \$ 0.15 | 78.21  | 80.85  | 83.05  | 83.93  | 86.51  | 87.90  | 89.11  |
|                 | \$ 0.18 | 78.69  | 81.32  | 83.50  | 84.37  | 86.94  | 88.32  | 89.52  |
|                 | \$ 0.21 | 79.18  | 81.79  | 83.96  | 84.82  | 87.37  | 88.74  | 89.94  |