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2022 Annual Report

CASELLA WASTE SYSTEMS, INC.

2022 ANNUAL REPORT

TO OUR FELLOW SHAREHOLDERS:

The fiscal year ended December 31, 2022 (“fiscal 2022”) marked another successful year for the company driven by strong operational execution and continued organic and acquisition growth. Our performance highlighted the agility of our team in a complex operating environment. Against the backdrop of a high cost inflation environment, we quickly reacted and refined operating and pricing programs early in the year to help offset inflationary pressures while executing against our key strategies.

I am particularly proud of this operational execution. In fiscal 2022, we grew revenues +22.0%, net income by +29.1%, and net cash provided by operating activities by +18.9%. Notably, we surpassed \$1 billion in revenues for the first time in the company’s history in addition to generating \$111.2 million in Adjusted Free Cash Flow⁽¹⁾. Our performance is a direct reflection of our strong culture, focus, and discipline.

In early 2022, we announced an updated long-term strategic plan through our fiscal year ending December 31, 2024 (the “2024 Plan”) as detailed below. We believe that continued execution against the following strategic initiatives set forth in the 2024 Plan will generate further shareholder value:

1. Increasing landfill returns;
2. Driving additional profitability in our collection operations;
3. Creating incremental value through Resource Solutions;
4. Allocating capital for return driven growth; and
5. Strengthening four key foundational pillars:
 - People: Developing a safe, engaged, ready workforce to support growth.
 - Sustainable Growth: Driving profitable growth through an integrated resource solutions approach.
 - Technology: Driving profitable growth and efficiencies through technology.
 - Facilities: Developing necessary long-term infrastructure through facilities planning.

We have executed well against our 2024 Plan thus far and have effectively navigated a dynamic external environment, which makes our financial accomplishments even more impressive. We remain keenly focused on continued execution against our 2024 Plan.

FOCUSING ON OUR FOUNDATIONAL PILLARS

Our focus on four foundational pillars reflects disciplined yet meaningful investments in our People, Sustainable Growth, Technology, and Facilities. We believe this focus supported our performance in fiscal 2022, including our Adjusted Free Cash Flow growth of 16.7%, and will continue to help drive further execution and growth.

The strength of any service-based company begins with its **People**, and we aim to provide the proper training, career-path transparency, and engagement necessary to drive the growth and development of our team. Safety is our priority. It starts with our hiring choices and expands thereafter on our commitment to building training and operating programs that improve our safety profile.

¹ Please refer to “Non-GAAP Liquidity Measures” in the appendix for further information and a reconciliation of Adjusted Free Cash Flow, which is a non-GAAP measure, to the most directly comparable GAAP measure, net cash provided by operating activities. Net cash provided by operating activities was \$182.7 million for the fiscal year ended December 31, 2021 and \$217.3 million for fiscal 2022.



From a development perspective, we invest in a variety of programs related to leadership development, core values training, and our commercial driver's license school ("CDL School"). The CDL School continues to grow with nearly 50% more graduates year-over-year in fiscal 2022. As a result, we are experiencing improved driver retention rates and believe that our diesel technician and other apprenticeship programs will yield similar results through their skills-based training and career-path focus.

In terms of employee engagement, in fiscal 2022, we reinvigorated our Core Values through the recognition of *champions* across the organization that embodied service, trust, responsibility, integrity, continuous improvement, and teamwork.

As we continue to grow, furthering the development of our people and our culture will help to ensure exceptional service, employee attraction and retention, safety, engagement within the company and within the communities in which we operate, and improved productivity.

Our **Sustainable Growth** pillar is focused on delivering value through a combined effort across our sales, engagement, customer care, sustainability, and communications teams. Alignment of our teams across these areas provides a more targeted approach to both maximize the quality of service and deliver differentiated service at appropriate returns. Our response to customer demand for expertise and sustainability-oriented resource management services continues to be an area of focus. We have experienced meaningful revenue growth across customer segments that have a growing demand for these services.

Our view is that our services must be economically and environmentally balanced. Adequate returns on the services we provide help to facilitate our continued investment in these growing service offerings.

From a **Technology** perspective, our investment approach is methodical and return driven. Our focus on technology spans from back-office systems and functions to our fleet of frontline vehicles and equipment. In fiscal 2022, we continued to execute against our multi-year technology plan and invest in business intelligence tools, in-cab technology within our trucks, service management, procurement, and robotics to enhance the automation of our collection fleet and material recycling facilities ("MRFs"). I am pleased with the progress we have made in these areas.

The robotic technology investments that we made at our MRFs reflect our dedication to providing high quality recycling processing. This technology helps to improve safety, throughput, and quality, while reducing the manual labor needs along the processing lines. The early results are positive, and we intend to continue to monitor the results and target further opportunities to make similar investments.

One example of this investment is at our Charlestown, Massachusetts MRF where we are in the process of modernizing our facility and taking it to the next level by installing robotics and optical sorting technology into our Zero Sort processing equipment. This upgrade intends to drive operating efficiencies, increase throughput, and enhance the end quality of recycled material. This facility's size and proximity to Boston makes it an important element for enabling sustainability in its market. The new equipment is slated to be fully installed by mid-2023.

Our **Facilities'** strategy aims to promote an engaged workforce through upgrading and modernizing our facilities over a multi-year horizon. Our plan incorporates a thoughtful approach to enrich the environment for our employees and visitors in a manner that is welcoming, accommodating, and that improves safety and operating efficiencies.

CARRYING OUR MOMENTUM FORWARD: CONTINUED GROWTH AND EXECUTION

We enter the fiscal year ending December 31, 2023 ("fiscal 2023") with great momentum and opportunity. We have started the year in a position to more than offset inflationary pressures through our flexible pricing and operating programs. In fiscal 2023, we intend to continue to focus and invest in ongoing operational initiatives, including further automation of our collection fleet and at our MRFs, route optimization, and select technology to further modernize operations, enhance customer experience, and transform back-office processes.

In fiscal 2022, we closed on 14 acquisitions as we continued to execute against our growth plan. Our acquisition pipeline remains robust and in addition to a strong balance sheet, we have invested in resources and new team members that are in place to support our next phase of growth.

In addition to acquisition opportunities, we have started to invest in rail infrastructure at our McKean landfill. This is an important disposal outlet for our customers' needs by providing increased certainty given the supply demand imbalance of disposal capacity across the northeastern United States, which has been largely driven by public policy. While this development project will likely not be online until 2024, we believe it is a future building block of organic growth that will balance nicely with our acquisition pipeline.

As we move forward in fiscal 2023, we are aligned well with our multi-year 2024 Plan. We will continue to strive to profitably grow the business and further increase shareholder value through the execution of our key strategic initiatives and strengthening of our foundational pillars.

Sincerely,



John W. Casella
Chairman and Chief Executive Officer
April 5, 2023

FORWARD LOOKING STATEMENTS

Certain matters discussed in this annual report, including, but not limited to, the statements regarding our intentions, beliefs or current expectations concerning, among other things, our financial performance; financial condition; operations and services; prospects; growth; strategies; anticipated impacts from future or completed acquisitions; and financial framework targets in the 2024 Plan, are “forward-looking statements” intended to qualify for the safe harbors from liability established by the Private Securities Litigation Reform Act of 1995. These forward-looking statements can generally be identified as such by the context of the statements, including words such as “believe,” “expect,” “anticipate,” “plan,” “may,” “would,” “intend,” “estimate,” “will,” “guidance” and other similar expressions, whether in the negative or affirmative. These forward-looking statements are based on current expectations, estimates, forecasts and projections about the industry and markets in which the Company operates and management’s beliefs and assumptions. The Company cannot guarantee that it actually will achieve the financial results, plans, intentions, expectations or guidance disclosed in the forward-looking statements made. Such forward-looking statements, and all phases of the Company’s operations, involve a number of risks and uncertainties, any one or more of which could cause actual results to differ materially from those described in its forward-looking statements.

Such risks and uncertainties include or relate to, among other things, the following: the Company may be unable to adequately increase prices or drive operating efficiencies to adequately offset increased costs and inflationary pressures, including increased fuel prices and wages; it is difficult to determine the timing or future impact of a sustained economic slowdown that could negatively affect our operations and financial results; the capping and closure of the Subtitle D landfill located in Southbridge, Massachusetts could result in material unexpected costs; recent changes in solid waste laws of the State of Maine may result in lower revenues or higher operating costs; adverse weather conditions may negatively impact the Company’s revenues and its operating margin; the Company may be unable to increase volumes at its landfills or improve its route profitability; the Company may be unable to reduce costs or increase pricing or volumes sufficiently to achieve estimated financial and other targets; landfill operations and permit status may be affected by factors outside the Company’s control; the Company may be required to incur capital expenditures in excess of its estimates; the Company’s insurance coverage and self-insurance reserves may be inadequate to cover all of its significant risk exposures; fluctuations in energy pricing or the commodity pricing of its recyclables may make it more difficult for the Company to predict its results of operations or meet its estimates; the Company may be unable to achieve its acquisition or development targets on favorable pricing or at all; the Company may not be able to successfully integrate acquired businesses; and the Company may incur environmental charges or asset impairments in the future.

There are a number of other important risks and uncertainties that could cause the Company’s actual results to differ materially from those indicated by such forward-looking statements. These additional risks and uncertainties include, without limitation, those detailed in Item 1A. “Risk Factors” in the Company’s most recently filed Form 10-K for the fiscal year ended December 31, 2022 and in other filings that the Company may make with the Securities and Exchange Commission in the future.

The Company undertakes no obligation to update publicly any forward-looking statements whether as a result of new information, future events or otherwise, except as required by law.

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

FORM 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2022

Or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission file number 000-23211

CASELLA WASTE SYSTEMS, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

25 Greens Hill Lane, Rutland, VT
(Address of principal executive offices)

03-0338873
(I.R.S. Employer
Identification No.)

05701
(Zip Code)

Registrant's telephone number, including area code: (802) 775-0325

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Class A common stock, \$0.01 par value per share	CWST	The Nasdaq Stock Market LLC (Nasdaq Global Select Market)

Securities registered pursuant to Section 12(g) of the Act:

None.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

Indicate by checkmark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>	Emerging growth company	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Act.

Indicate by check mark whether the registrant has filed a report and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements.

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to § 240.10D-1(b).

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

The aggregate market value of the common equity held by non-affiliates of the registrant, based on the last reported sale price of the registrant's Class A common stock on the Nasdaq Stock Market at the close of business on June 30, 2022 was approximately \$3.6 billion. The registrant does not have any non-voting common stock outstanding.

There were 50,715,714 shares of Class A common stock, \$0.01 par value per share, of the registrant outstanding at January 31, 2023. There were 988,200 shares of Class B common stock, \$0.01 par value per share, of the registrant outstanding at January 31, 2023.

Documents Incorporated by Reference

Part III of this Annual Report on Form 10-K incorporates by reference information from the definitive Proxy Statement for the registrant's 2023 Annual Meeting of Stockholders or a Form 10-K/A to be filed with the Securities and Exchange Commission not later than 120 days after the registrant's fiscal year ended December 31, 2022.

CASELLA WASTE SYSTEMS, INC.
ANNUAL REPORT ON FORM 10-K
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PART I

Unless the context requires otherwise, all references in this Annual Report on Form 10-K to “Casella Waste Systems, Inc.”, “Casella”, the “Company”, “we”, “us” or “our” refer to Casella Waste Systems, Inc. and its consolidated subsidiaries.

Forward-Looking Statements

This Annual Report on Form 10-K contains or incorporates a number of forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Exchange Act of 1934, as amended. Any statements contained in or incorporated by reference into this report that are not statements of historical fact should be considered forward-looking statements. You can identify these forward-looking statements by the use of the words “believes”, “expects”, “anticipates”, “plans”, “may”, “will”, “would”, “intends”, “estimates” and other similar expressions, whether in the negative or affirmative. These forward-looking statements are based on current expectations, estimates, forecasts and projections about the industry and markets in which we operate, as well as management’s beliefs and assumptions, and should be read in conjunction with our consolidated financial statements and notes thereto. We cannot guarantee that we actually will achieve the plans, intentions or expectations disclosed in the forward-looking statements made. The occurrence of the events described and the achievement of the expected results depends on many events, some or all of which are not predictable or within our control. Actual results may differ materially from those set forth in the forward-looking statements. Among the factors that could cause actual results to differ materially from the expectations expressed in the forward-looking statements are:

- general economic factors, such as ongoing or potential geopolitical conflict, pandemics, recessions, or similar national or global events, and general macroeconomic conditions, including, among other things, consumer confidence, global supply chain disruptions, inflation, labor supply, fuel prices, interest rates and access to capital markets that generally are not within our control, and our exposure to credit and counterparty risk;
- the projected development of additional disposal capacity or expectations regarding permits for existing capacity;
- the outcome of any legal or regulatory matter;
- expected liquidity and financing plans;
- expected future revenues, operations, expenditures and cash needs;
- fluctuations in the commodity pricing of our recyclables, increases in landfill tipping fees and fuel costs and general economic and weather conditions;
- projected future obligations related to final capping, closure and post-closure costs of our existing landfills and any disposal facilities which we may own or operate in the future;
- our ability to use our net operating losses and tax positions;
- our ability to service our debt obligations;
- the recoverability or impairment of any of our assets or goodwill;
- estimates of the potential markets for our products and services, including the anticipated drivers for future growth;
- sales and marketing plans or price and volume assumptions;
- potential business combinations or divestitures; and
- projected improvements to our infrastructure and the impact of such improvements on our business and operations.

There are a number of important risks and uncertainties that could cause our actual results to differ materially from those indicated by such forward-looking statements. These risks and uncertainties include, without limitation, those detailed in Item 1A. “*Risk Factors*” of this Annual Report on Form 10-K. We explicitly disclaim any obligation to update any forward-looking statements whether as a result of new information, future events or otherwise, except as otherwise required by law.

ITEM 1. BUSINESS

Overview

Casella Waste Systems, Inc. is a regional, vertically integrated solid waste services company. We provide resource management expertise and services to residential, commercial, municipal, institutional and industrial customers, primarily in the areas of solid waste collection and disposal, transfer, recycling and organics services. We provide integrated solid waste services in seven states: Vermont, New Hampshire, New York, Massachusetts, Connecticut, Maine and Pennsylvania, with our headquarters located in Rutland, Vermont.

We manage our solid waste operations on a geographic basis through two regional operating segments, the Eastern and Western regions, each of which provides a full range of solid waste services. We manage our resource-renewal operations through the Resource Solutions operating segment, which leverages our core competencies in materials processing, industrial recycling, organics and resource management service offerings to deliver a comprehensive solution for our larger commercial, municipal, institutional and industrial customers that have more diverse waste and recycling needs.

For more information about our reportable operating segments, please see "*Operational Overview*." For financial information concerning our reportable operating segments, refer to "Item 7. *Management's Discussion and Analysis of Results of Operations and Financial Condition*" and "Item 8. *Financial Statements and Supplementary Data*" of this Annual Report on Form 10-K.

Our website is www.casella.com. We make available, free of charge through our website, our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, Proxy Statements on Schedule 14A, and any amendments to those materials filed pursuant to Sections 13(a) and 15(d) of the Securities Exchange Act of 1934, as amended. We make these reports available through our website as soon as reasonably practicable after we electronically file such materials with or furnish them to the Securities and Exchange Commission ("SEC"). The information found on our website is not part of this or any other report we file with or furnish to the SEC.

Growth Strategy

Our goal is to maintain and build lasting shareholder value by providing exemplary service to our customers, while operating safe and environmentally sound facilities. Over the last decade, we have worked with many of our key customers to improve their environmental footprint and to meet sustainability goals by increasing their recycling rates, diverting organic materials out of the waste stream into beneficial use processes, and partnering to develop resource solutions within their organizations. Since we first began operating in Vermont in 1975, our business strategy has been firmly tied to creating a sustainable resource management model, and we continue to be rooted in these same tenets today.

We continue to invest in resources (team, technology, facilities, and capital) to further develop this important long-term strategy that we believe will continue to differentiate our service offerings to our customers, make us an employer of choice for our people, and improve our economic returns. We strive to create long-term value for all of our stakeholders, including customers, employees, communities and shareholders.

Our primary objective is to maximize long-term shareholder value through a combination of financial performance and strategic asset positioning. Annually, we complete a comprehensive strategic planning process to assess and refine our strategic objectives in the context of our asset mix, the current market environment and opportunity set for growth. This process helps the management team allocate resources to a range of business opportunities with the goal to maximize long-term financial returns and competitive positioning.

In February 2022, we announced an updated long-term strategic plan through our fiscal year ending December 31, 2024 (the "2024 Plan"). The key strategies of the 2024 Plan, set forth below, reflect our continued focus on creating shareholder value through execution against our core competencies, disciplined growth strategy and strengthening foundational pillars.

- (1) Increasing landfill returns;
- (2) Driving additional profitability in collection operations;
- (3) Creating incremental value through Resource Solutions;
- (4) Allocating capital to return driven growth; and
- (5) Strengthening four key foundational pillars:
 - People: Developing a safe, engaged, ready workforce to support growth.
 - Sustainable Growth: Driving profitable growth through an integrated resource solutions approach.
 - Technology: Driving profitable growth and efficiencies through technology.
 - Facilities: Developing necessary long-term infrastructure through facilities planning.

Increasing Landfill Returns

Disposal capacity continues to tighten in the Northeast market as permanent site closures are reducing capacity. Given this supply-demand imbalance and the positioning of our assets, we were able to advance landfill pricing by 5.0% for the fiscal year ended December 31, 2022 ("fiscal year 2022"), as compared to the fiscal year ended December 31, 2021 ("fiscal year 2021").

We believe that this positive pricing backdrop will continue as additional site closures are expected over the next several years, and we expect the combination of our pricing programs and operational initiatives to outpace our cost inflation. In addition, we continue to focus our acquisition efforts on businesses and markets that are expected to increase vertical integration to our landfills to help drive higher cash flows and to decrease market risk.

On the landfill development side, we continue to advance key permitting activities across our landfills to increase annual capacity limits at select sites and expand total permitted capacity across our footprint. Since early 2016, we have been successful in advancing permit increases at our Subtitle D landfills located in Angelica, New York (“Hyland Landfill”), Seneca, New York (“Ontario County Landfill”), Chemung, New York (“Chemung County Landfill”), West Old Town, Maine (“Juniper Ridge Landfill”), Schuylar Falls, New York (“Clinton County Landfill”), Coventry, Vermont (“Waste USA Landfill”), Campbell, New York (“Hakes Landfill”) and Bethlehem, New Hampshire (“NCES Landfill”). Cumulatively, these efforts have added approximately 0.5 million tons per year of permitted capacity and approximately 50.9 million cubic yards of permitted airspace.

We also continue to focus on improving our landfill operations through various initiatives related to safety, compliance, operating practices, and capital efficiency programs.

Driving Additional Profitability in Collection Operations

Collection pricing was up 7.0% for fiscal year 2022, as compared to fiscal year 2021, with sustained execution against our strategic pricing programs, which helped to offset inflationary pressures. On the operating side, we continue to advance several key areas, including route optimization, fleet standardization and automation, and maintenance programs to further reduce our operating costs and further improve safety in the collection line-of-business. Our comprehensive fleet plan is designed to optimize our fleet and target truck replacements to maximize returns, reduce our operating expenses through lower maintenance costs, improve our service levels through reduced down times, and increase automation and optimization of trucks and service types. From a technology perspective, we continue to advance business intelligence tools that provide our teams with actionable data as well as investment and deployment of on-board-computers and cameras designed to enhance safety and service and modernize our fleet. We also remain focused on acquisition integration as we work diligently to onboard new customers and employees, while enhancing service accuracy, increasing operating efficiencies, and optimizing the internalization of solid waste and recycling volumes into our facilities.

The combination of these operating advancements and pricing programs are driving improved results in our collection line-of-business, with our cost of operations as a percentage of revenues down approximately 280 basis points in fiscal year 2022 as compared to the twelve months ended December 31, 2019 (“fiscal year 2019”).

We also remain focused on mitigating fuel cost exposure through our floating fuel cost recovery fee program. In fiscal year 2022, as fuel prices increased, we were able to fully offset higher fuel costs with revenues associated with this program, albeit we experienced margin compression as the program is designed to recover costs.

Creating Incremental Value Through Resource Solutions

Our Resource Solutions operating segment's business strategy is focused on driving value-added resource management and sustainability-oriented solutions to our customers. These solutions range from professional services to large industrial, institutional or multi-site retail customers, our organics business, which is a leader in organics processing and disposal in the Northeast, and our large scale, technology-driven recycling business.

We leverage our core competencies in materials processing, industrial recycling, organics and resource management service offerings to deliver a comprehensive solution for our larger commercial, municipal, institutional, and industrial customers with more diverse waste and recycling needs. Our processing operations consist of our recycling and biosolids facilities where we receive inbound materials, process the volume, and sell the resulting products into end markets.

We have worked to reshape our recycling business model to drive higher returns in all market cycles and reduce exposure to recycling commodity price volatility. We have accomplished this goal by: (1) restructuring most third-party processing contracts to limit downside risk by charging processing fees; (2) implementing our sustainability recycling adjustment fee (“SRA Fee(s)”) for our collection customers (the SRA Fee floats inversely to changes in recycling commodity prices); (3) making key investments in recycling processing infrastructure to reduce operating costs and improve the quality of the end commodities; and (4) developing strong partnerships with industrial consumers of recycled materials to ensure that the materials our customers recycle make their way into new products and beneficial uses. Where implemented, our risk mitigation programs offset most recycling commodity price decline and also allow us to return value to our customers with higher recycling commodity prices through lower tipping fees and a lower SRA fee. We expect these programs to continue to reduce our commodity risk exposure.

Our non-processing operations, which we refer to as our Customer Solutions business, consist of brokerage and resource management services provided to large customers with broad sustainability needs. This professional services business continues to make progress pivoting from the legacy waste and recycling brokerage model to an advisory services organization focused on helping large industrial and institutional customers develop and achieve actionable resource management and sustainability goals.

Allocating Capital to Return-Driven Growth

Over the last decade, we have made significant progress in simplifying our business structure, improving cash flows and reducing risk exposure by: (1) divesting, or in certain cases, closing underperforming operations that did not enhance or complement our core operations; (2) refinancing debt to lower interest costs and improve financial flexibility; and (3) adhering to strict capital discipline and debt repayment. As a result of these actions, we have significantly reduced our consolidated net leverage ratio to 2.08x as of December 31, 2022. See Item 7. “*Management’s Discussion and Analysis of Financial Condition and Results of Operations*” of this Annual Report on Form 10-K for more disclosure about our consolidated net leverage ratio.

We aim to deploy capital in a disciplined manner and continue to grow the business through opportunistic acquisition and development activity, while maintaining conservative debt leverage levels. As part of this strategy, we set a goal through the fiscal year ending December 31, 2024 of adding more than \$30 million per year of annualized revenues through acquisition or development activity.

We continue to make significant progress ramping up our strategic growth initiative as we have acquired 53 solid waste collection, transfer and recycling businesses since the beginning of the fiscal year ended December 31, 2018 (“fiscal year 2018”) through fiscal year 2022 with approximately \$291 million of total annualized revenues. This includes 14 solid waste, collection, transfer and recycling businesses acquired in fiscal year 2022 with approximately \$51 million in total annualized revenues. We expect roll-over revenue growth of approximately \$15.5 million in the fiscal year ending December 31, 2023 (“fiscal year 2023”) from acquisitions completed in fiscal year 2022.

We believe the strength of our balance sheet coupled with a robust acquisition pipeline positions us well for continued execution against our growth strategy.

It is our view that acquisition or development activity should be opportunistic, and we plan to adhere to our disciplined capital return hurdles and rigorous review and risk management process. We are focused on acquiring well-run businesses in strategic markets across our footprint and in adjacent markets that will drive additional internalization to our facilities, operating synergies, and opportunities to grow profitably into new market areas. We are also focused on more effectively optimizing waste placement around the Northeast as the ever-tightening disposal market is creating additional opportunities to source new volumes at higher prices.

Strengthening Foundational Pillars

Execution against the 2024 Plan is supported by strengthening our foundational pillars: people, sustainable growth, technology, and facilities. We believe that it is important to continue to invest in and strengthen our foundational pillars to support growth and further differentiate our business strategy.

People. We continue to invest in our people through leadership development, career paths program, technical training for key roles such as drivers and mechanics, and incentive compensation structures that seek to align our employees’ incentives with our long-term goal to improve cash flows and returns on invested capital. We have grown our workforce to approximately 3,200 employees and we believe that continuing to invest in our team and culture, and creating a safe, engaged, and ready workforce is key to our continued success.

Sustainable Growth. Execution against the key strategies within the 2024 Plan will be supported by our sustainable growth initiatives. We are focused on driving further value through profitable new customer growth and the expansion of services with existing customers. We have integrated our sales, marketing, engagement, customer care, communications, and sustainability functions in an effort to improve customer profitability, key customer retention, and new market growth opportunities through a differentiated sustainable service platform.

We have increased our sales training and developed centralized processes, consistent sales metrics, and compensation programs to position us to further improve accountability and alignment across our organization. Our sustainable growth initiatives shape how we interact with our customers and with the communities we serve.

Technology. In the fiscal year ended December 31, 2017 (“fiscal year 2017”), we launched a multi-year plan focused on driving operating and back-office cost efficiencies, customer value, and strategic growth. Through fiscal year 2022, we have successfully implemented: a new Customer Resource Management system to help manage and drive higher sales force effectiveness, a new Case Management system to ensure strong integration between our sales force, customer care group and operating teams, a cloud-based Enterprise Resource Planning system as the financial backbone to our business, and a new digital procurement system to enhance spend category management and drive efficiencies.

We plan to continue our measured approach to technology implementation, with capital investment in select technologies that have long-term strategic fit, including our service management initiative to improve customer facing technology, operational efficiencies, and various back-office functions. This initiative also includes the implementation of route optimization software

and a new on-board computing platform to drive efficiencies, safety, and improve billings. We have also increased our access to actionable real-time data through continued improvements to our business intelligence software.

Facilities. We believe prioritizing and allocating capital to meet our long-term facility needs will help to improve employee safety, operating efficiencies, acquisition integration, and employee engagement. Our multi-year facility strategy helps to guide decisions related to facility expansions, consolidations, and relocations as well as key property or facility acquisitions. We are also focused on developing facility standards that will create a more welcoming and accommodating experience for our employees, customers, vendors, and site visitors. These attributes coupled with improved functional design aim to increase the attraction and retention of key roles across our organization.

Human Capital

We believe that one of the most important factors in achieving our long-term strategy is to hire, develop, and retain employees who will be able to make good decisions for our business, customers and communities by adhering to our *core values* of service, trust, responsibility, integrity, continuous improvement and teamwork ("Core Values"). Our team consists of drivers, vehicle technicians, equipment operators, recycling facility sorters, engineers, accountants, customer care specialists, and many other key roles.

As of January 31, 2023, we employed approximately 3,200 employees, including approximately 640 managerial, sales, clerical, information systems or other administrative employees and approximately 2,560 employees involved in collection, transfer, disposal, recycling, organics or other operations. Approximately 150 of our employees are covered by collective bargaining agreements.

Health, Safety and Wellness

A top priority across all of our operations is to protect the health and safety of our team and the communities that we serve. At the heart of our safety program are our safety and operations teams, who are dedicated to ensuring that every employee has a safe operating environment and the necessary training and personal protective equipment to safely conduct their role. The success of our safety programs and the performance of our health and safety and operations teams is measured by our total recordable incident rate, a measure of accidents and injuries compared to hours worked. Our extensive focus on new hire and ongoing training programs also helps us to manage and reduce operational risks for our front-line employees.

We are also focused on facility upgrades, enhancements, and standards that result in safety and operational improvements, while furthering employee engagement. We understand the importance of providing a safe and attractive environment for our employees to work.

Compensation and Benefit Programs

We strive to provide the necessary resources to support the physical and mental health of our employees and the overall well-being of their families and the communities that we serve. We achieve this through our benefit programs, caring attitude towards our employees, deep engagement in our communities, and adherence to our Core Values. We are committed to offering high quality benefits at affordable rates, competitive compensation based on role, experience and performance, and a career paths program to encourage our team to advance throughout their employment with us. We conduct market-based surveys to ensure that our employees continue to be paid competitively, and we perform annual reviews to provide feedback and support the growth and development of our team.

We offer our employees access to enhanced benefits such as a concierge surgery service, telemedicine options, access to a certified clinical pharmacist to support employees in managing their medications and healthcare budget, and online psychology appointments. We understand the importance of work-life balance for our team and offer eight weeks maternity leave as well as maintain a robust employee assistance program designed to provide support and guidance related to personal life challenges and events. Further, our Employee Life Navigator program is focused on employee retention, career development, and financial stability for at risk employees. Through comprehensive compensation and benefits, ongoing employee development, tuition reimbursement and a focus on health, safety and employee well-being, we wish to help our employees in all aspects of their lives so they can realize their value and do their best work.

Diversity, Equity and Inclusion

Our commitment to workplace diversity and equity, and to fostering a culture of inclusion is rooted in our Core Values. Our vision is to draw on our Core Values to achieve diversity throughout our workforce, including our leadership, through the following initiatives:

- directing recruiting efforts to new talent pools, promoting diversity in our training and development programs, and encouraging diversity within our process for advancing our next cohort of leaders;

- launching a cultural awareness and competency training program for managers that emphasizes diversity, equity, and inclusion; and
- incorporating diversity, equity, and inclusion practices as part of our ongoing efforts to upgrade our procurement system and practices.

Employee Engagement, Training and Development

We are committed to building people and cultivating engagement by investing in our career path program in order to provide a clear and measurable development pathway for career growth.

- *Apprenticeships:* We have developed an apprenticeship program for drivers and technicians, where we recruit new employees from diverse backgrounds and help them build the skills they need to thrive in our organization.
- *Commercial Driver's License Training:* We have developed a commercial driver's license ("CDL") training school and have partnered with several additional training schools across our operating footprint to help develop skilled drivers for our team. In fiscal year 2022, we supported 74 drivers in securing their CDL, which unlocked new opportunities for them within our company.
- *Operations Trainee Program:* Our operations trainee program develops individuals into frontline management roles. Through on-the-job training, participants learn the technical and leadership skills required to lead our operations. This program has become a strong pipeline for our operating managers across our company. We continue to expand our management development programs across the organization.
- *Diesel Mechanic Training:* Our continued collaboration with technical schools has produced several diesel technicians throughout our organization. We continue to enhance our training infrastructure and resources to attract, develop, and retain skilled diesel mechanics.

We have also increased our focus on Core Values training to support the continued growth of our workforce and ensure that new employees understand our culture and values. This training highlights our commitment to integrating new employees and ensuring that there is continuity in our message about culture within our organization.

Operational Overview

We manage our solid waste operations, which are vertically integrated and include a full range of solid waste services, on a geographic basis through two regional operating segments, which we designate as the Eastern and Western regions. Within each geographic region, we organize our solid waste services around smaller areas that we refer to as "wastesheds." A wasteshed is an area that comprises the complete cycle of activities in the solid waste services process, from collection to transfer operations and recycling to disposal in landfills, some of which may be owned and/or operated by third parties. We typically operate several divisions within each wasteshed, each of which provides a particular service, such as collection, recycling, disposal or transfer. Each division operates interdependently with the other divisions within the wasteshed. Each wasteshed generally operates autonomously from adjoining wastesheds.

Our Eastern region consists of wastesheds located in Maine, northern, central and southeastern New Hampshire, central and eastern Massachusetts, and eastern Connecticut. We began entering into these wastesheds beginning in 1996 and have expanded primarily through acquisitions and organic growth since. Our Western region includes wastesheds located in Vermont, southwestern New Hampshire, eastern, western and upstate New York, western Massachusetts, and in Pennsylvania around our Subtitle D landfill located in Mount Jewett, Pennsylvania ("McKean Landfill"). We began entering into these wastesheds in 1997 and have expanded primarily through tuck-in acquisitions and organic growth. We remain focused on increasing our vertical integration in our Western region through extension of our reach into new markets.

We manage our resource-renewal operations through the Resource Solutions operating segment, which leverages our core competencies in materials processing, industrial recycling, organics and resource management service offerings to deliver a comprehensive solution for our larger commercial, municipal, institutional and industrial customers that have more diverse waste and recycling needs. The Resource Solutions operating segment is not specific to a geography, and is organized to leverage our core competencies across our entire business footprint.

The following table provides information about each reportable segment (as of January 31, 2023 except revenue information, which is for fiscal year 2022):

	Eastern Region	Western Region	Resource Solutions
Revenues (in millions)	\$340.0	\$445.2	\$299.9
Number of Properties:			
Solid waste collection facilities	20	29	—
Transfer stations	29	36	—
Recycling and processing facilities	3	6	17
Subtitle D landfills	2	6	—
Construction and demolition ("C&D") landfills	—	1	—

For financial information concerning our reportable segments, refer to “Item 7. *Management’s Discussion and Analysis of Results of Operations and Financial Condition*” and “Item 8. *Financial Statements and Supplementary Data*” of this Annual Report on Form 10-K.

Solid Waste Operations

Solid waste operations within our Eastern and Western regions comprise a full range of non-hazardous solid waste services, including collection, transfer stations, and disposal facilities. Revenues in our Eastern and Western regions consist primarily of fees charged to customers for solid waste collection and disposal, landfill, landfill gas-to-energy, transfer and recycling services. We derive a substantial portion of our collection revenues from commercial, industrial and municipal services that are generally performed under service agreements or pursuant to contracts with municipalities. The majority of our residential collection services are performed on a subscription basis with individual property owners or occupants. Landfill and transfer customers are charged a tipping fee on a per ton basis for disposing of their solid waste at our disposal facilities and transfer stations. We also generate and sell electricity, renewable energy credits, and energy capacity payments at certain of our landfill facilities.

Collection. A majority of our commercial and industrial collection services are performed under one-to-five year service agreements, with prices and fees determined by such factors as: collection frequency; type of equipment and containers furnished; type, volume and weight of solid waste collected; distance to the disposal or processing facility; and cost of disposal or processing. Our residential collection and disposal services are performed either on a subscription basis (with no underlying contract) with individuals, or through contracts with municipalities, homeowner associations, apartment building owners or mobile home park operators.

Transfer Stations. Our transfer stations receive, process and transfer solid waste, collected primarily by our various residential and commercial collection operations, for transport to disposal facilities by larger vehicles. We believe that transfer stations benefit us by: (1) increasing the size of the wastesheds which have access to our landfills or third-party disposal facilities; (2) reducing costs by improving utilization of collection personnel and equipment; and (3) helping us build relationships with municipalities and other customers by providing a local physical presence and enhanced local service capabilities.

Landfills. We operate eight solid waste Subtitle D landfills and one landfill permitted to accept C&D materials. Revenues are received from municipalities and other customers in the form of tipping fees. The estimated capacity at our landfills is subject to change based on engineering factors, requirements of regulatory authorities, our ability to continue to operate our landfills in compliance with applicable regulations and our ability to successfully renew operating permits and obtain expansion permits at our sites.

The following table (in thousands) reflects the aggregate landfill capacity and airspace changes, in tons, for landfills we operated during fiscal years 2022, 2021 and 2020:

	Fiscal Year 2022			Fiscal Year 2021			Fiscal Year 2020		
	Estimated Remaining Permitted Capacity (1)	Estimated Additional Permittable Capacity (1)(2)	Estimated Total Capacity	Estimated Remaining Permitted Capacity (1)	Estimated Additional Permittable Capacity (1)(2)	Estimated Total Capacity	Estimated Remaining Permitted Capacity (1)	Estimated Additional Permittable Capacity (1)(2)	Estimated Total Capacity
Balance, beginning of year	58,705	47,251	105,956	42,681	31,239	73,920	44,434	34,139	78,573
New expansions pursued (3)	—	4,494	4,494	19,607	16,200	35,807	—	—	—
Permits granted (4)	—	—	—	—	—	—	993	(993)	—
Airspace consumed	(3,672)	—	(3,672)	(3,675)	—	(3,675)	(3,594)	—	(3,594)
Changes in engineering estimates (5)	2,514	(2,113)	401	92	(188)	(96)	848	(1,907)	(1,059)
Balance, end of year	<u>57,547</u>	<u>49,632</u>	<u>107,179</u>	<u>58,705</u>	<u>47,251</u>	<u>105,956</u>	<u>42,681</u>	<u>31,239</u>	<u>73,920</u>

- (1) We convert estimated remaining permitted capacity and estimated additional permittable capacity from cubic yards to tons generally by assuming a compaction factor derived from historical average compaction factors, with modification for future anticipated changes. In addition to a total capacity limit, certain permits place a daily and/or annual limit on capacity.
- (2) Represents capacity which we have determined to be “permittable” in accordance with the following criteria: (i) we control the land on which the expansion is sought; (ii) all technical siting criteria have been met or a variance has been obtained or is reasonably expected to be obtained; (iii) we have not identified any legal or political impediments which we believe will not be resolved in our favor; (iv) we are actively working on obtaining any necessary permits and we expect that all required permits will be received; and (v) senior management has approved the project based on a review of the engineering design and determination that the financial return profile meets our investment criteria.
- (3) The increase in capacity associated with new expansions pursued at various landfills in our Western region (Hakes Landfill in fiscal year 2022; and McKean Landfill and Hyland Landfill in fiscal year 2021).
- (4) The increase in remaining permitted airspace capacity in fiscal year 2020 was the result of a permit received at the NCES Landfill in our Eastern region.
- (5) The variation in changes in airspace capacity associated with engineering estimates are primarily the result of changes in compaction at our landfills and estimated airspace changes associated with design changes at certain of our landfills.

Our Eastern region consists of the following landfills:

NCES Landfill. NCES Landfill is a Subtitle D landfill located in Bethlehem, New Hampshire that we purchased in 1994. NCES Landfill currently consists of approximately 52 acres of permitted or permittable landfill area, and is permitted to accept municipal solid waste, C&D material and certain pre-approved special wastes. In October 2020, we received approval for a permit modification for an additional 1.24 million cubic yards of capacity at the NCES Landfill. The permit modification included an annual permit limit of 0.23 million cubic yards per year. We are party to an agreement for the construction of a landfill renewable natural gas (“RNG”) facility, which will be constructed, owned and operated by a third-party. We expect this RNG facility to be operational at some point in fiscal year 2023.

Juniper Ridge Landfill. Juniper Ridge Landfill is a Subtitle D landfill located in West Old Town, Maine. In 2004, we completed transactions with the State of Maine and Georgia-Pacific Corporation (“Georgia Pacific”), pursuant to which the State of Maine took ownership of Juniper Ridge Landfill, formerly owned by Georgia Pacific, and we became the operator under a 30-year operating and services agreement between us and the State of Maine. Juniper Ridge Landfill currently consists of approximately 179 acres of permitted or permittable landfill area, which is sufficient to permit the additional airspace required for the term of the 30-year operating and services agreement, and is permitted to accept the following waste originating from the State of Maine: C&D material, ash from municipal solid waste incinerators and fossil fuel boilers, front end processed residuals and bypass municipal solid waste from waste-to-energy facilities and certain pre-approved special waste. Outside of the limitations on municipal solid waste, there are no annual tonnage limitations at Juniper Ridge Landfill. We are party to an agreement for the construction of a landfill RNG facility plant at the Juniper Ridge Landfill, which will be constructed, owned and operated by a third-party. We expect this RNG facility to be operational at some point in fiscal year 2023.

Our Western region consists of the following landfills:

Waste USA Landfill. Waste USA Landfill is a Subtitle D landfill located in Coventry, Vermont that we purchased in 1995, and is the only operating permitted Subtitle D landfill in the State of Vermont. Waste USA Landfill consists of approximately 144 acres of permitted or permittable landfill area and is permitted to accept up to 0.6 million tons of municipal solid waste, C&D material and certain pre-approved special waste annually. The Waste USA Landfill site houses a landfill gas-to-energy plant, which is owned and operated by a third-party, that has the capacity to generate 8.0 MW of energy.

Clinton County Landfill. Clinton County Landfill, which currently consists of approximately 197 acres of permitted or permittable landfill area, portions of which are leased from Clinton County, and other portions owned by us, is permitted to accept up to approximately 0.3 million tons of municipal solid waste, C&D material and certain pre-approved special waste annually. The Clinton County Landfill site houses a landfill gas-to-energy facility, which is owned by us and operated by a third party, that has the capacity to generate 6.4 MW of energy.

Hyland Landfill. Hyland Landfill is a Subtitle D landfill located in Angelica, New York that we own, and that began accepting waste in 1998. Hyland Landfill currently consists of approximately 180 acres of permitted or permittable landfill area and is permitted to accept up to 0.5 million tons of municipal solid waste, C&D material and certain pre-approved special waste annually. The Hyland Landfill site houses a landfill gas-to-energy facility, which is owned by us and operated by a third-party, that has the capacity to generate 4.8 MW of energy.

Ontario County Landfill. Ontario County Landfill is a Subtitle D landfill located in Seneca, New York. In 2003, we entered into a 25-year operation, management and lease agreement for the Ontario County Landfill with the Ontario County Board of Supervisors. Ontario County Landfill currently consists of approximately 171 acres of permitted or permittable landfill area and is permitted to accept up to 0.9 million tons of municipal solid waste, C&D material and certain pre-approved special waste annually and is strategically situated to accept long haul volume from both the eastern and downstate New York markets. In January 2016, we received an expansion permit at the Ontario County Landfill, which is sufficient to permit the additional airspace required for the remaining term of the 25-year operation, management and lease agreement. The Ontario County Landfill site houses a Zero-Sort materials recovery facility ("MRF"), which is operated by us, and a landfill gas-to-energy facility, which is owned and operated by a third-party, that has the capacity to generate 11.2 MW of energy.

Hakes Landfill. Hakes Landfill is a C&D landfill located in Campbell, New York that we purchased in 1998. Hakes Landfill currently consists of approximately 122 acres of permitted and permittable landfill area and is permitted to accept up to 0.5 million tons of C&D material annually.

Chemung County Landfill. Chemung County Landfill is a Subtitle D landfill located in Chemung, New York. In 2005, we entered into a 25-year operation, management and lease agreement for Chemung County Landfill and certain other facilities with Chemung County. Chemung County Landfill currently consists of approximately 113 acres of permitted or permittable landfill area strategically situated to accept long haul volume from both eastern and downstate New York markets and is permitted to accept up to 0.4 million tons of municipal solid waste and certain pre-approved special waste annually and 20.5 thousand tons of C&D material annually. In the fiscal year ended December 31, 2016, we received an expansion permit at Chemung County Landfill, which is sufficient to permit the additional airspace required for the remaining term of the 25-year operation, management and lease agreement. In fiscal year 2019, we exercised an option to extend the remaining term of the operation, management and lease agreement for up to five years through 2035.

McKean Landfill. McKean Landfill is a Subtitle D landfill located in Mount Jewett, Pennsylvania that we purchased in 2011. McKean Landfill currently consists of approximately 256 acres of permitted or permittable landfill area and is permitted to accept up to approximately 1.6 million tons of municipal solid waste, C&D material and certain pre-approved special waste annually. We are in the process of pursuing the development of rail infrastructure to expand the market reach for the landfill to rail capable transfer facilities.

Our closed landfills consist of the following landfills:

In fiscal year 2017, we initiated a plan to cease operations of the Town of Southbridge, Massachusetts landfill ("Southbridge Landfill") and decided to not proceed with expansion efforts and to close Southbridge Landfill once the remaining capacity had been exhausted, which occurred in fiscal year 2018. Closure operations, which began in November 2018 when Southbridge Landfill reached its final capacity, are ongoing. The site houses a landfill gas-to-energy facility, which is owned by us and operated by a third-party, that has the capacity to generate 1.6 MW of energy.

In addition to Southbridge Landfill, we own and/or manage five unlined landfills and three lined landfills that are not currently in operation. We are closing, in the case of Southbridge Landfill, or have closed and capped all of these landfills according to applicable environmental regulatory standards.

Resource Solutions

Our Resource Solutions operating segment was formed to leverage our core competencies in materials processing, industrial recycling, organics and resource management service offerings in order to generate additional value from the waste stream for larger commercial, municipal, institutional and industrial customers with more diverse needs. Resource solutions services are comprised of processing services and our Customer Solutions business. We also work to develop and/or partner with firms that have developed innovative approaches to deriving incremental value from the organic portion of the waste stream.

Processing. Processing services consist of the receipt of recycled, sludge or other organic materials at one of our materials recovery, processing or disposal facilities, where it is then sorted, mixed and/or processed, and then disposed of or sold. Revenues from processing services are derived from municipalities and customers in the form of processing fees, tipping fees, and commodity sales, primarily comprised of newspaper, corrugated containers, plastics, ferrous and aluminum, and organic materials such as our earthlife® soils products including fertilizers, composts and mulches.

We are one of the largest processors and marketers of recycled materials in the northeastern United States with facilities located in Vermont, New York, Maine, Connecticut, and Massachusetts, including our seven large-scale, high volume MRFs, one of which is located in New York, two of which are located in Vermont, two of which are located in Massachusetts, one of which is located in Connecticut, and one of which is located in Maine. Three of the seven MRFs are leased, three are owned, and one is operated by us under a contract with a municipal third-party. Our MRFs receive, sort, bale and sell recyclable materials originating from the municipal solid waste stream, including newsprint, cardboard, office paper, glass, plastic, steel or aluminum containers and bottles. We also operate smaller MRFs, which generally process recyclables collected from our various residential and commercial collection operations.

A substantial portion of the recyclable materials provided is delivered pursuant to multiple long-term anchor contracts. The terms of the recycling contracts vary, but all of the contracts provide that the municipality or a third-party delivers the recycled materials to our facility. These contracts may include a minimum volume guarantee by the municipality. We also have service agreements with individual towns and cities and commercial customers, including small solid waste companies and major competitors, which do not have processing capacity within a specific geographic region. Under the recycling contracts, we charge the municipality a fee for each ton of material delivered to us. Some contracts contain revenue sharing arrangements under which the municipality receives a specified percentage of our revenues from the sale of the recovered materials if certain economic thresholds are met. In fiscal year 2022, we processed and/or marketed over 0.8 million tons of recyclable materials, including tons marketed through our Customer Solutions business commodity brokerage division and our baling facilities located throughout our footprint, including just over 0.7 million tons per year of recycled materials delivered by municipalities and commercial customers under long-term anchor contracts.

The pricing for recyclable materials can fluctuate based upon market conditions. We have actively worked to reduce our risk exposure to commodity pricing volatility through our efforts to shift customers to a processing fee model and other risk management programs. We effectively manage commodity pricing volatility through our long-term revenue sharing (or processing fee) contracts with customers. Under such contracts, we obtain a guaranteed minimum price for recyclable materials through the receipt of a tipping or processing fee when commodity prices fall below agreed upon thresholds. Conversely, when prices for recyclable materials rise above agreed upon thresholds, we provide the counterparty with a portion of the related revenues above such threshold. Also, we mitigate the impact from commodity price fluctuations through the use of a floating SRA Fee charged to collection customers to reduce recycling commodity risk. Further, we work to manage commodity pricing risk through commodity sales contracts with large domestic companies that use the recyclable materials in their manufacturing process, such as paper, packaging and consumer goods companies.

The global recycling market has experienced volatility due to changes in economic conditions and numerous other factors beyond our control, from negative commodity pricing pressure resulting from China's National Sword program in fiscal year 2017, to near record highs followed by near record lows in fiscal year 2022.

See also Item 7A. “*Quantitative and Qualitative Disclosure About Market Risk*” of this Annual Report on Form 10-K for further discussion over commodity price volatility.

Customer Solutions. Our Customer Solutions business consists of brokerage services and overall resource management services, which provide a wide range of environmental services and resource management solutions to large and complex organizations, as well as traditional collection, disposal and recycling services provided to large account multi-site customers. In brokerage arrangements, we act as an agent that facilitates the sale of recyclable and organic materials between an inbound customer and an outbound customer. Revenues from the brokerage of recycled materials are recognized on a net basis at the time of shipment. In general, these fees are variable in nature. In overall resource management services, we work with larger scale commercial or industrial organizations (including multi-location customers, colleges and universities, municipalities, and industrial customers) to develop customized solid waste and recycling solutions. The focus of this business is to help these large-scale organizations achieve their economic and environmental objectives related to waste and residual management. We strive to differentiate our services from our competitors by providing customized and comprehensive resource solutions, which enables us to win new business, including traditional solid waste collection and disposal customers.

Competition

The solid waste services industry is competitive and requires substantial labor and capital resources. Our business strategy generally focuses on operating in secondary or tertiary markets where we have a leading market presence. However, in the larger urban markets where we operate, we typically compete against one or more of the large national solid waste companies, including Waste Management, Inc., Republic Services, Inc. and Waste Connections, Inc., any of which may be able to achieve greater economies of scale than we can. We also compete with a number of regional and local companies that offer competitive prices and quality service. We compete primarily on the basis of the quality, breadth and price of our services. This includes our Resource Solutions operating segment, from which we strive to leverage our core competencies in materials processing, industrial recycling, organics, and resource management service offerings to deliver a comprehensive solution for our larger commercial, municipal, institutional and industrial customers that have more diverse solid waste and recycling needs. In addition, we compete with operators of alternative disposal facilities, including incinerators; with certain municipalities, counties and districts that operate their own solid waste collection and disposal facilities; and with rail-serviced transfer stations that use rail to transport waste to disposal sites outside of northeastern markets. Public sector facilities may have certain advantages over us due to the availability of user fees, charges or tax revenues.

From time to time, competitors may reduce the price of their services in an effort to expand market share or to win a competitively bid municipal contract. These practices may also lead to reduced pricing for our services or the loss of business. In addition, competition exists within the industry for potential acquisition candidates.

Sales and Marketing

We have aligned our sales and marketing strategies with other customer-facing teams - Customer Care, Business Development, Sales Operations, Marketing, Community Engagement, and Sustainability - to better serve our customers while delivering on several key strategic initiatives for sustainable growth.

As a part of our resource management offering, we serve customers with multiple locations and are focused on growing our number of municipal, institutional, commercial and industrial customers. We leverage broader service offerings of the Resource Solutions operating segment to provide customers with a full set of solutions to augment our regional and divisional service capabilities.

While we continue to provide traditional waste and recycling services locally, our differentiated sustainable resource management approach aims to meet our customers' unique needs and strives to deliver value beyond competitors in local markets. We value and embrace the uniqueness of our local communities above the homogeneity of corporate process, while encouraging and supporting our local managers to engage with local government, non-profits, and business organizations.

Deep community engagement, supported by modern corporate brand governance and strategy gives us the flexibility needed to serve today's customers and support communities. A combination of enterprise sustainability goals and efforts, strong brand placements, and marketing tactics are designed to unify and humanize our company while retaining existing customers and attracting new ones.

Risk Management, Insurance and Performance or Surety Bonds

We actively maintain environmental and other risk management programs that we believe are appropriate for our business. Our environmental risk management program includes evaluating existing facilities, as well as potential acquisitions, for compliance with environmental law requirements. Operating practices at all of our operations are intended to reduce the possibility of environmental contamination, enforcement actions and litigation. We also maintain a worker safety program, which focuses on safe practices in the workplace.

We carry a range of insurance intended to protect our assets and operations, including a commercial general liability policy and a property damage policy. A partially or completely uninsured claim against us (including liabilities associated with cleanup or remediation at our facilities), if successful and of sufficient magnitude, could have a material adverse effect on our business, financial condition and results of operations. Due primarily to market factors beyond our control, the insurance market is increasingly restrictive, potentially limiting our ability to obtain adequate coverage at reasonable prices, if at all. Any future difficulty in obtaining insurance could also impair our ability to secure future contracts, which may be conditioned upon the availability of adequate insurance coverage. See Item 1A. “*Risk Factors*” of this Annual Report on Form 10-K for further disclosure.

We self-insure for automobile and workers’ compensation coverage with reinsurance coverage limiting our maximum exposure. In fiscal year 2022, our maximum exposure per individual event under the workers’ compensation plan was \$1.25 million. In fiscal year 2022, our minimum and maximum exposure per individual event under the automobile plan were up to \$1.50 million and \$3.65 million, respectively.

Municipal solid waste collection contracts and landfill closure and post-closure obligations may require performance or surety bonds, letters of credit or other means of financial assurance to secure contractual performance. While we have not experienced difficulty in obtaining these financial instruments, if we are unable to obtain these financial instruments in sufficient amounts or at acceptable rates, we could be precluded from entering into additional municipal contracts or obtaining or retaining landfill operating permits.

We hold a 19.9% ownership interest in Evergreen National Indemnity Company (“Evergreen”), a surety company which provides surety bonds to secure our contractual obligations for certain municipal solid waste collection contracts and landfill closure and post-closure obligations. Our ownership interest in Evergreen is pledged to Evergreen as security for our obligations under the bonds they provide on our behalf.

Customers

We provide our collection services to commercial, municipal, institutional, industrial and residential customers. A majority of our commercial and industrial collection services are performed under one-to-five year service agreements, and fees are determined by such factors as: professional or management services required; collection frequency and the related operational costs; type of equipment and containers furnished; the type, volume and weight of the solid waste, recyclables or organics collected; the distance to the disposal or processing facility; and the cost of disposal or processing. Our residential collection and disposal services are performed either on a subscription basis (with no underlying contract) with individuals, or through contracts with municipalities, homeowners’ associations, apartment owners or mobile home park operators. We provide recycling processing services to municipalities, commercial haulers and commercial waste generators within the geographic proximity of the processing facilities.

We also provide brokerage services and overall resource management services providing a wide range of environmental services to large and complex organizations, as well as traditional collection, disposal and recycling services provided to large account multi-site customers.

Seasonality and Severe Weather

Our transfer and disposal revenues historically have been higher in the late spring, summer and early fall months. This seasonality reflects lower volumes of waste in the late fall, winter and early spring months because the volume of waste relating to C&D activities decreases substantially during the winter months in the northeastern United States.

Because certain of our operating and fixed costs remain constant throughout the fiscal year, operating income is therefore impacted by a similar seasonality. Our operations can be adversely affected by periods of inclement or severe weather, which and may increase with the physical impacts of climate change and could increase our operating costs associated with the collection and disposal of waste, delay the collection and disposal of waste, reduce the volume of waste delivered to our disposal sites, increase the volume of waste collected under our existing contracts (without corresponding compensation), decrease the throughput and operating efficiency of our materials recycling facilities, or delay construction or expansion of our landfill sites and other facilities. Our operations can also be favorably affected by severe weather, which could increase the volume of waste in situations where we are able to charge for our additional services provided.

Our processing line-of-business in our Resource Solutions operating segment experiences increased volumes of recycled fibers from November through mid-January due to increased retail activity during the holiday season.

Regulation

Introduction

Our facilities and operations are subject to a variety of federal, state and local requirements that regulate, among other things, the environment, public health, safety, zoning and land use. In order to transport, process, or dispose of solid waste, it is necessary for us to possess and comply with one or more permits from federal, state and/or local agencies. We must renew these permits periodically, and the permits may be modified or revoked by the issuing agency under certain circumstances. We are subject to extensive federal, state and local laws and regulations. The laws and regulations affecting us are administered by the United States Environmental Protection Agency (“EPA”) and other federal, state and local environmental, zoning, financial, health and safety agencies.

In order to comply with these regulations, we must incur substantial capital expenditures relating to our vehicles, landfills, transfer stations, and recycling processing centers, and in connection with our capping, closure, post-closure and environmental remediation activities. Compliance with existing and future legal and regulatory requirements, including changes relating to per- and polyfluoroalkyl substances (commonly referred to as “PFAS”) and other chemicals of emerging concern, and limitations or bans on disposal of certain types of wastes or on the transportation of waste, could increase our costs to operate or require additional capital expenditures. Failure to comply with such requirements could result in substantial costs or penalties, including civil and criminal fines and penalties.

We strive to conduct our operations in compliance with applicable laws, regulations and permits. However, from time to time we have been issued citations or notices from governmental authorities that have resulted in the need to expend funds for remedial work and related activities at various landfills and other facilities or in the need to expend funds for fines, penalties or settlements. Citations and notices may be issued in the future, notwithstanding our strong regulatory compliance efforts.

Except as described in this Annual Report on Form 10-K, we believe that we are currently in substantial compliance with applicable federal, state and local environmental laws, permits, orders and regulations. Other than as disclosed herein, we do not currently anticipate any material costs to bring our existing operations into environmental compliance, although there can be no assurance in this regard for the future. We expect that our operations in the solid waste services industry will be subject to continued and increased regulation, legislation and enforcement oversight. We attempt to anticipate future legal and regulatory requirements and to keep our operations in compliance with those requirements.

The principal federal statutes and regulations applicable to our operations are as follows:

The Resource Conservation and Recovery Act of 1976, as amended (“RCRA”)

The RCRA regulates the generation, treatment, storage, handling, transportation and disposal of solid waste and requires states to develop programs to ensure the safe disposal of solid waste. The RCRA divides waste into two categories, hazardous and non-hazardous. Wastes are generally classified as hazardous if they either (a) are specifically included on a list of hazardous wastes, or (b) exhibit certain characteristics defined as hazardous and are not specifically designated as non-hazardous. Wastes classified as hazardous waste are subject to more extensive regulation than wastes classified as non-hazardous, and businesses that deal with hazardous waste are subject to regulatory obligations in addition to those imposed on businesses that deal with non-hazardous waste.

Among the wastes that are specifically designated as non-hazardous are household waste and “special” waste, including items such as petroleum contaminated soils, asbestos, foundry sand, shredder fluff and most non-hazardous industrial waste products.

The EPA regulations issued under Subtitle C of the RCRA impose a comprehensive “cradle to grave” system for tracking the generation, transportation, treatment, storage and disposal of hazardous wastes. Subtitle C regulations impose obligations on generators, transporters and disposers of hazardous wastes, and require permits that are costly to obtain and maintain for sites where those businesses treat, store or dispose of such material. Subtitle C requirements include detailed operating, inspection, training and emergency preparedness and response standards, as well as requirements for manifesting, record keeping and reporting, corrective action, facility closure, post-closure and financial responsibility. Most states have promulgated regulations modeled on some or all of the Subtitle C provisions issued by the EPA, and in many instances the EPA has delegated to those states the principal role in regulating businesses which are subject to those requirements. Some state regulations impose obligations different from and in addition to those the EPA imposes under Subtitle C.

Leachate generated at our landfills and transfer stations is tested on a regular basis, and generally is not regulated as a hazardous waste under federal law. However, there is no guarantee that leachate generated from our facilities in the future will not be classified as hazardous waste.

In October 1991, the EPA adopted the Subtitle D regulations under RCRA governing solid waste landfills. The Subtitle D regulations, which generally became effective in October 1993, include siting restrictions, facility design standards, operating criteria, closure and post-closure requirements, financial assurance requirements, groundwater monitoring requirements, groundwater remediation standards and corrective action requirements. In addition, the Subtitle D regulations require that new landfill sites meet more stringent liner design criteria (typically, composite soil and synthetic liners or two or more synthetic liners) intended to keep leachate out of groundwater and have extensive collection systems to carry away leachate for treatment prior to disposal. Regulations generally require us to install groundwater monitoring wells at virtually all landfills we operate, to monitor groundwater quality and, indirectly, the effectiveness of the leachate collection systems. The Subtitle D regulations also require facility owners or operators to control emissions of landfill gas (including methane) generated at landfills exceeding certain regulatory thresholds. State landfill regulations must meet those requirements or the EPA will impose such requirements upon landfill owners and operators in that state.

The Federal Water Pollution Control Act of 1972, as amended (“Clean Water Act”)

The Clean Water Act regulates the discharge of pollutants into “navigable waters” or “waters of the United States” from a variety of sources, including solid waste disposal sites and transfer stations, processing facilities and waste-to-energy facilities (collectively, “solid waste management facilities”). If pollutants from our solid waste management facilities are discharged into streams, rivers or other surface waters, or if there is a functional equivalent of a direct discharge into navigable waters, the Clean Water Act would require us to apply for and obtain a discharge permit, conduct sampling and monitoring and, under certain circumstances, reduce the quantity of pollutants in such discharge. A permit also may be required if run-off or leachate from our solid waste management facilities is discharged to an offsite treatment facility. Almost all solid waste management facilities must comply with the EPA’s storm water regulations, which govern the discharge of regulated storm water to surface waters.

Under federal regulation, facilities that have above ground and/or below ground petroleum storage capacities over certain thresholds may be subject to regulations and/or permitting under the Clean Water Act. Many of our facilities have petroleum storage and are required to have a spill, prevention, control and countermeasures plan to prevent petroleum release to waters of the United States due to a spill, rupture or leak.

Several states in which we operate have been delegated the authority to implement the Clean Water Act requirements and in some cases the regulations are more stringent than the federal regulations. We believe we are in compliance with the Clean Water Act regulations; however future changes to the law or regulations could have a material impact on our business.

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (“CERCLA”)

CERCLA established a regulatory and remedial program intended to provide for the investigation and remediation of facilities where, or from which, a release of any hazardous substance into the environment has occurred or is threatened. CERCLA has been interpreted to impose retroactive, strict, and under certain circumstances, joint and severable, liability for the costs to investigate and clean up facilities on current owners and operators of the site, former owners and operators of the site at the time of the disposal of the hazardous substances, as well as the generators and certain transporters of the hazardous substances. CERCLA imposes liability for the costs of evaluating and addressing damage to natural resources. The costs of CERCLA investigation and cleanup can be substantial. Liability under CERCLA does not depend upon the existence or disposal of “hazardous waste” as defined by RCRA, but can be based on the presence of any of approximately 800 “hazardous substances” listed by the EPA, many of which can be found in household waste. The definition of “hazardous substances” in CERCLA incorporates substances designated as hazardous or toxic under the Federal Clean Water Act, Clean Air Act and Toxic Substances Control Act (“TSCA”). If we were found to be a responsible party for a CERCLA cleanup, under certain circumstances, the enforcing agency could pursue us or any other responsible party, for all investigative and remedial costs, even if others also were liable. CERCLA also authorizes the EPA to impose a lien in favor of the United States upon all real property subject to, or affected by, a remedial action for all costs for which the property owner is liable. CERCLA provides a responsible party with the right to bring a contribution action against other responsible parties for their allocable share of investigative and remedial costs. Our ability to obtain reimbursement for amounts we pay in excess of our allocable share of such costs would be limited by our ability to identify and locate other responsible parties and to prove the extent of their responsibility and by the financial resources of such other parties.

The Clean Air Act of 1970, as amended (“Clean Air Act”)

The Clean Air Act, generally through state implementation of federal requirements, regulates emissions of air pollutants from certain landfills based upon the date the landfill was constructed, the total capacity of the landfill and the annual volume of emissions. The EPA has promulgated new source performance standards regulating air emissions of certain regulated pollutants (non-methane organic compounds) from municipal solid waste landfills. Landfills located in areas where ambient levels of regulated pollutants exceed certain thresholds may be subject to more extensive air pollution controls and emission limitations. In addition, the EPA has issued standards regulating the disposal of asbestos-containing materials under the Clean Air Act.

The EPA is also focusing on the emissions of greenhouse gases ("GHG"), including carbon dioxide and methane. In December 2009, the EPA issued its "endangerment finding" that carbon dioxide poses a threat to human health and welfare, providing the basis for the EPA to regulate GHG emissions. In December 2009 the EPA's "Mandatory Reporting of Greenhouse Gases" rule went into effect, requiring facilities that emit twenty-five thousand metric tons or more per year of GHG emissions to submit annual reports to the EPA.

In May 2010, the EPA issued the so-called "GHG Tailoring Rule", which described how certain sources that emit GHG would be subject to heightened Clean Air Act Prevention of Significant Deterioration ("PSD") / Title V regulation. In June 2014, the U.S. Supreme Court issued a decision partially invalidating the GHG Tailoring Rule and in 2015, the D.C. Circuit directed the EPA to consider further revisions to its regulations. In August 2016, the EPA proposed revisions to PSD and Title V regulations to clarify when sources would require permits based on GHG thresholds. We do not know whether or when the EPA will finalize regulations, or what obligations such regulations will impose on our operations.

The adoption of other laws and regulations, which may include the imposition of fees or taxes, could adversely affect our collection and disposal operations. Additionally, certain of the states in which we operate are implementing air pollution control regulations, including regional cap and trade systems, relating to GHG that may be more stringent than regulations the EPA may promulgate. Several states have passed Climate Protection or Global Warming Acts intended to achieve statewide goals in reduction of GHG emissions. Changing environmental regulations could require us to take any number of actions, including purchasing emission allowances, developing mitigation strategies, or installing additional pollution control technology, and could make some operations less profitable, which could adversely affect our results of operations.

Congress has considered various options, including a cap and trade system, which could impose a limit on and establish a pricing mechanism for GHG emissions and emission allowances. There also is pressure for the United States to join international efforts to control GHG emissions.

The Clean Air Act regulates emissions of air pollutants from our processing facilities. The EPA has enacted standards that apply to those emissions. It is possible that the EPA, or a state where we operate, will enact additional or different emission standards in the future.

All of the federal statutes described above authorize lawsuits by private citizens to enforce certain provisions of the statutes. In addition to a penalty award to the United States, some of those statutes authorize an award of attorney's fees to private parties successfully advancing such an action.

The Occupational Safety and Health Act of 1970, as amended ("OSHA")

OSHA establishes employer responsibilities and authorizes the Occupational Safety and Health Administration to promulgate and enforce occupational health and safety standards, including the obligation to maintain a workplace free of recognized hazards likely to cause death or serious injury, to comply with adopted worker protection standards, to maintain certain records, to provide workers with required disclosures and to implement certain health and safety training programs. A variety of those promulgated standards may apply to our operations, including those standards concerning notices of hazards, safety in excavation and demolition work, the handling of asbestos and asbestos-containing materials, and worker training and emergency response programs.

The Public Utility Regulatory Policies Act of 1978, As Amended ("PURPA")

PURPA exempts qualifying facilities from most federal and state laws governing the financial organization and rate regulation of electric utilities, and generally requires electric utilities to purchase electricity generated by qualifying facilities at a price equal to the utility's full "avoided cost". Our landfill gas-to-energy facilities are self-certified as "qualifying facilities".

State and Local Regulations

Each state in which we now operate or may operate in the future has laws and regulations governing (1) water and air pollution, and the generation, storage, treatment, handling, processing, transportation, incineration and disposal of solid waste and hazardous waste; (2) in most cases, the siting, design, operation, maintenance, closure and post-closure maintenance of solid waste management facilities; and (3) in some cases, vehicle emissions limits or fuel types, which impact our collection operations. Such standards typically are as stringent as, and may be more stringent and broader in scope than, federal regulations. Most of the federal statutes noted above authorize states to enact and enforce laws with standards that are more protective of the environment than the federal analog. In addition, many states have adopted statutes comparable to, and in some cases more stringent than, CERCLA. Those statutes impose requirements for investigation and remediation of contaminated sites and liability for costs and damages associated with such sites, and some authorize the state to impose liens to secure costs expended addressing contamination on property owned by responsible parties. Some of those liens may take priority over previously filed instruments. Some states have enacted statutes that impose liability for substances in addition to the "hazardous substances" listed by EPA under CERCLA.

Many municipalities in which we currently operate or may operate in the future also have ordinances, laws and regulations affecting our operations. These include zoning and health measures that limit solid waste management activities to specified sites or conduct, flow control provisions that direct the delivery of solid wastes to specific facilities or to facilities in specific areas, laws that grant the right to establish franchises for collection services and then put out for bid the right to provide collection services, and bans or other restrictions on the movement of solid wastes into a municipality.

Some states have enacted laws that allow agencies with jurisdiction over waste management facilities to deny or revoke permits based on the applicant's or permit holder's compliance status. Some states also consider the compliance history of the corporate parent, subsidiaries and affiliates of the applicant or permit holder.

Certain permits and approvals issued under state or local law may limit the types of waste that may be accepted at a solid waste management facility or the quantity of waste that may be accepted at a solid waste management facility during a specific time period. In addition, certain permits and approvals, as well as certain state and local regulations, may limit a solid waste management facility to accepting waste that originates from specified geographic areas or seek to restrict the importation of out-of-state waste or otherwise discriminate against out-of-state waste. Generally, restrictions on importing out-of-state waste have not withstood judicial challenge. However, from time to time federal legislation is proposed which would allow individual states to prohibit the disposal of out-of-state waste or to limit the amount of out-of-state waste that could be imported for disposal and would require states, under certain circumstances, to reduce the amounts of waste exported to other states. Although such legislation has not been passed by Congress, if similar legislation is enacted, states in which we operate solid waste management facilities could limit or prohibit the importation of out-of-state waste. Such actions could materially and adversely affect the business, financial condition and results of operations of any of our solid waste management facilities within those states that receive a significant portion of waste originating from out-of-state.

Certain states and localities may restrict the export of waste from their jurisdiction, or require that a specified amount of waste be disposed of at facilities within their jurisdiction. In 1994, the U.S. Supreme Court rejected as unconstitutional and therefore invalid, a local ordinance that sought to limit waste going out of the locality by imposing a requirement that the waste be delivered to a particular privately-owned facility. However, in 2007, the U.S. Supreme Court upheld a U.S. District Court ruling that the flow control regulations in Oneida and Herkimer counties in New York requiring trash haulers to use publicly-owned transfer stations are constitutional, and therefore valid. Additionally, certain state and local jurisdictions continue to seek to enforce such restrictions. Some proposed federal legislation would allow states and localities to impose flow restrictions. Those restrictions could reduce the volume of waste going to solid waste management facilities in certain areas, which may materially adversely affect our ability to operate our facilities and/or affect the prices we can charge for certain services. Those restrictions also may result in higher disposal costs for our collection operations. Flow control restrictions could have a material adverse effect on our business, financial condition and results of operations.

There has been an increasing trend at the state and local levels to mandate or encourage both waste reduction at the source and waste recycling, and to prohibit or restrict the disposal in landfills of certain types of solid wastes, including yard wastes and leaves, certain construction or architectural wastes, food wastes, beverage containers, newspapers, household appliances and electronics such as computers, and batteries. Regulations reducing the volume and types of wastes available for transport to and disposal in landfills could affect our ability to operate our landfill facilities. Vermont, for example, enacted Act 148, containing among other things, a phased waste ban for recyclables, organics and leaf/yard waste. The law became effective July 1, 2012, with phased deadlines for compliance beginning 2014 through 2020. Vermont also passed a law requiring recycling of architectural waste from construction or demolition of a commercial project. The law became effective in January 2015.

On November 1, 2022, new waste ban regulations took effect in Massachusetts, adding mattresses and textiles as materials banned from disposal or transport for disposal in Massachusetts, and lowering the threshold on commercial organic/food waste to facilities generating more than one-half ton of these materials per week.

New York State revised its regulations governing solid waste management, 6 NYCRR Part 360, effective in November 2017. The revised regulations, among other things, include requirements to conduct landfill liner integrity testing and install radiation detectors at certain facilities. New York has also enacted the Food Donation and Food Scraps Recycling Law, requiring certain generators to separate and donate or recycle food scraps as of January 2022.

Although there is no federal law governing extended producer responsibility ("EPR") regulations; many states have implemented or are contemplating EPR regulations for certain products. EPR regulations are intended to place responsibility for ultimate management or end-of-useful-life handling of the products they create. In addition to financial responsibility, an EPR program may include responsibility for local take-back or recycling programs. For example, several states in which we operate have EPR regulations for electronic waste. In 2021, the Maine Legislature passed EPR legislation for packaging, and rulemaking commenced in 2022. If broad EPR laws or regulations continue to be adopted, and are managed under a manufacturer implemented program, it could have an impact on our business.

The EPA and environmental agencies within individual states in which we operate continue to consider and promulgate changes to water quality standards, action levels, remediation goals, and other federal or state regulatory standards for

individual compounds or classes of compounds. These changes include the development of new or more stringent standards for “Emerging Contaminants”, including PFAS, pharmaceutical compounds, and a variety of synthetic chemical compounds used in manufacturing and industrial processes. In December 2016, EPA designated ten chemical substances for risk evaluations under TSCA, and in December 2019, EPA designated an additional 20 chemical substances for risk evaluation, based on the requirements of the June 2016 Frank R. Lautenberg Chemical Safety for the 21st Century Act. In August 2022, EPA proposed a rule to designate two PFAS -- perfluorooctanoic acid ("PFOA") and perfluorooctanesulfonic acid ("PFOS") -- as hazardous substances under CERCLA. Changes in regulatory standards for existing or emerging contaminants can result in higher levels of cost and effort associated with the performance of environmental investigations and ongoing compliance at our facilities.

Information about our Executive Officers

Our executive officers and their respective ages are as follows:

Name	Age	Position
John W. Casella	72	Chairman of the Board of Directors, Chief Executive Officer and Secretary
Edmond “Ned” R. Coletta	47	President and Chief Financial Officer
Shelley E. Sayward	48	Senior Vice President and General Counsel
Sean M. Steves	46	Senior Vice President and Chief Operating Officer of Solid Waste Operations
Kevin J. Drohan	42	Vice President and Chief Accounting Officer
Paul J. Ligon	54	Senior Vice President Sustainable Growth

John W. Casella has served as Chairman of our Board of Directors since July 2001 and as our Chief Executive Officer since 1993. Mr. Casella also served as our President from 1993 to July 2001 and as Chairman of our Board of Directors from 1993 to December 1999. In addition, Mr. Casella has served as Chairman of the Board of Directors of Casella Waste Management, Inc., a wholly owned subsidiary of ours, since 1977. Mr. Casella is also an executive officer and director of Casella Construction, Inc., a company owned by Mr. Casella and his brother Douglas R. Casella, also a member of our Board of Directors, which specializes in general contracting, soil excavation and heavy equipment work, and which performs landfill-construction and related services for us. Mr. Casella has been a member of numerous industry-related and community service-related state, local, and national boards and commissions, including the Board of Directors of the Associated Industries of Vermont, the Association of Vermont Recyclers, the Vermont State Chamber of Commerce, the Rutland Industrial Development Corporation, the Rutland Regional Medical Center, the National Recycling Coalition, the Detachable Container Association and the Environmental Research & Education Foundation. Mr. Casella has also served on various state task forces, serving in an advisory capacity to the Governors of Vermont, New York, and New Hampshire on solid waste issues. Mr. Casella holds an Associate of Science degree in Business Management from Bryant & Stratton College and a Bachelor of Science degree in Business Education from Castleton University.

Edmond “Ned” R. Coletta has served as our President and Chief Financial Officer since July 2022. Prior to this role, he served as our Senior Vice President, Chief Financial Officer and Treasurer from December 2012 to July 2022. Mr. Coletta joined us in December 2004, and served as our Vice President of Finance and Investor Relations from January 2011 to December 2012 and as our Director of Finance and Investor Relations from August 2005 to January 2011. From 2002 until he joined us, Mr. Coletta served as the Chief Financial Officer and was a member of the Board of Directors of Avedro, Inc. (FKA ThermalVision, Inc.), an early-stage medical device company that he co-founded. From 1997 to 2001, he served as a research and development engineer for Lockheed Martin Michoud Space Systems. Mr. Coletta has served on the Board of Trustees for Killington Mountain School since May 2020. Mr. Coletta holds an MBA from the Tuck School of Business at Dartmouth College and a Bachelor of Science degree from Brown University in Materials Science Engineering.

Shelley E. Sayward has served as our Senior Vice President and General Counsel since January 2021, and prior to that in various roles in our legal department since November 2006. She was previously our Vice President and Assistant General Counsel from September 2014 until January 2021 and was our Associate General Counsel from September 2008 to September 2014. Prior to joining us, Ms. Sayward held sales and marketing roles with GlaxoSmithKline and Abbott Laboratories, as well as a sales and managerial position with First American Financial Corporation. Ms. Sayward holds a Bachelor of Arts degree from Middlebury College, completed a four-year law clerkship program, and is licensed to practice law in the State of Vermont.

Sean M. Steves has served as our Senior Vice President and Chief Operating Officer of Solid Waste Operations since July 2022. He is responsible for our Operations Support, Fleet Management, Landfill Operations and Service Excellence functions. Mr. Steves most recently served as our Senior Vice President of Operations from April 2019 to July 2022. Mr. Steves joined us in April 2018 as our Vice President of Operational Initiatives. From 2016 until he joined us in April 2018, he was the Director of Operations Support for Republic Services, Inc. a provider of U.S. environmental services. Mr. Steves has extensive operations experience in the waste industry starting as a transfer station scale operator and has held roles of increasing responsibility,

including Operations Supervisor, Operations Manager, and General Manager. Mr. Steves holds a Bachelor of Arts degree from DePaul University with a concentration in Sustainable Management.

Kevin J. Drohan has served as our Vice President and Chief Accounting Officer since April 2022. Mr. Drohan joined us in August 2021 as our Corporate Controller. Prior to that, from 2015 until he joined Casella, Mr. Drohan served as the Corporate Controller for Sprague Resources, LP (“Sprague”), then a publicly-traded regional provider of industrial, commercial, and residual energy products. From 2007 through 2015, Mr. Drohan held various finance and accounting roles of increasing responsibility at Sprague. Prior to Sprague, Mr. Drohan held accounting and audit roles at Stanley Black & Decker, EY, and BerryDunn. Mr. Drohan is a Certified Public Accountant and holds an MBA and a Bachelor of Science degree in Business Administration from the University of New Hampshire.

Paul J. Ligon has served as our Senior Vice President of Sustainable Growth since December 2019 and oversees our Sustainable Growth teams including sales, marketing, customer care, sustainability, and community engagement teams. From 2012 to December 2019, Mr. Ligon led the development of our Solutions business focused on delivering sustainable services to commercial, industrial, and municipal customers. Prior to joining us, Mr. Ligon was a managing director for Waste Management’s Organic Growth Unit in Houston from 2003 through 2011 and a Senior Scientist with the Tellus Institute for Resource and Environmental Strategies from 1990 to 2001. Mr. Ligon holds a MBA from the Tuck School of Business at Dartmouth College and a Bachelor of Science degree in Environmental Science from the University of Vermont.

ITEM 1A. RISK FACTORS

The following material factors, among others, could cause actual results to differ materially from those indicated by forward-looking statements made in this Annual Report on Form 10-K and presented elsewhere by management from time to time. The risks and uncertainties described below are those that we have identified as material, but are not the only risks and uncertainties facing us. Our business is also subject to general risks and uncertainties that affect many other companies, including overall economic and industry conditions, especially in the northeastern United States, where our operations and customers are principally located, changes in laws or accounting rules or other disruptions of expected economic or business conditions. Additional risks and uncertainties not currently known to us or that we currently believe are not material also may impair our business’s results of operations and financial condition.

We have in place an Enterprise Risk Management process that involves systematic risk identification and mitigation covering the categories of strategic, financial, operational, and compliance risk. The goal of enterprise risk management is not to eliminate all risk, but rather to identify and assess risks; assign, mitigate and monitor risks; and report the status of our risks to the Board of Directors and its committees.

Risks Related to Our Business and Industry

We are subject to general macroeconomic risks in the waste industry that are impacted by economic factors outside of our control, which, if realized, may adversely affect our business, operating results and financial performance.

To varying degrees, our business is directly affected by general macroeconomic risks in the waste industry that are impacted by economic factors outside of our control, which if realized may negatively impact our business, results of operations, and financial performance. These risks related to general macroeconomic conditions include those with respect to consumer confidence, global supply chain disruptions, inflation, labor supply, fuel prices, interest rates and access to capital markets. Economic factors, such as ongoing or potential geopolitical conflict, pandemics, recessions, or similar national or global events, adversely impact macroeconomic risks that have caused and may continue to cause, economic disruption across our geographic footprint resulting in reductions in business, consumer and construction activity. Negative economic conditions can result in decreased consumer spending and decreases in solid waste volumes generated in the collection and disposal businesses, which negatively impacts our ability to grow through new business or service upgrades and the sales price of commodities in our recycling business, and may result in customer turnover and reduction in customers' waste service needs. For example, in fiscal year 2020 revenues declined as we experienced decreased demand for our services as a result of the novel coronavirus ("COVID-19") pandemic as some of our commercial collection customers requested service level decreases, construction activity decreased and volumes into our landfills declined due to lower economic activity. Demand for services has since improved as local economies have reopened and the economic effects of the COVID-19 pandemic have diminished. Furthermore, residual macroeconomic effects associated with these economic factors that have negatively impacted the global supply chain, labor markets and distribution networks leading to heightened inflation across labor, select services and goods, and capital investments may also materially adversely affect our operating and financial results in a manner that is not currently known to us or that we do not currently consider to present significant risks to our operations. To the extent these economic factors increase macroeconomic risks and adversely affect our business and financial results, it may also have the effect of heightening many other risks described in this section, any of which could materially and adversely affect our business, results of operations and financial condition. See Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations" of this Annual Report on Form 10-K for further discussion.

If we are unable to attract, hire or retain key team members and a high-quality workforce, or if our succession planning does not develop an adequate pipeline of future leaders, it could disrupt our business, jeopardize our strategic priorities and result in increased costs, negatively impacting our results of operations.

Our operations require us to attract, hire, develop and retain a high-quality workforce to provide a superior customer experience. This includes key individuals in leadership and specialty roles, as well as a very large number of drivers, technicians and other front-line and back-office team members necessary to provide our environmental services. We experience significant competition to hire and retain individuals for certain front-line positions, such as commercial truck drivers, from within and outside our industry. This competition may come from other waste management companies, but it also comes from other employers who hire drivers and maintain fleets, such as companies that provide courier delivery services, including United Parcel Service, Inc. and FedEx Corporation, as well as from a tightening labor market. As a result, certain positions currently experience, have historically experienced, and may experience in the future, high turnover rates or labor shortages, which can lead to increased recruiting, training and retention costs. If we are unable to hire and retain sufficient numbers of drivers to service our collection and disposal routes and mechanics to maintain our trucks, our financial condition and operating results could be materially impacted. Additionally, the market for employees that serve on our digital team is highly competitive. As we have accelerated our investments in our digital platform, it is increasingly important that we are able to attract and retain employees with the skills and expertise necessary to implement and manage our technology-led strategy. We also compete to attract skilled business leaders, and our own key team members are sought after by our competitors and other companies. We make significant investments, and engage in extensive internal succession planning, to provide us with a robust pipeline of future leaders. If we are not able to attract, hire, develop and retain a high-quality workforce with the necessary skills and expertise, as well as key leaders, or if we experience significant employee turnover, it can result in business and strategic disruption, increased costs, and loss of institutional knowledge, which could negatively impact our results of operations. Also see Item 1A. "Risk Factors — We are subject to general macroeconomic risks in the waste industry that are impacted by economic factors outside of our control, which, if realized, may adversely affect our business, operating results and financial performance" of this Annual Report on Form 10-K.

Significant shortages in diesel fuel supply or increases in diesel fuel prices could affect our operating expenses and results.

The price and supply of fuel is unpredictable and fluctuates based on events beyond our control, including among others, geopolitical developments, supply and demand for oil and gas, actions by the Organization of the Petroleum Exporting Countries and other oil and gas producers, war and unrest in oil producing countries and regional production patterns. Fuel is needed to run our fleet of trucks, equipment and other aspects of our operations, and price escalations for fuel increase our operating expenses. In fiscal year 2022, we consumed approximately 9.5 million gallons of diesel fuel in our solid waste operations. Although we have a fuel cost recovery program, which is the energy component of our energy and environmental fee program that floats monthly based on reported diesel fuel prices, contractual restrictions and competitive conditions may impact our opportunity to pass this fee on to our customers in all circumstances. See Item 7A. "*Quantitative and Qualitative Disclosure About Market Risk*" of this Annual Report on Form 10-K for further discussion over the impacts of fuel prices on our operations. Also see Item 1A. "*Risk Factors — We are subject to general macroeconomic risks in the waste industry that are impacted by economic factors outside of our control, which, if realized, may adversely affect our business, operating results and financial performance*" of this Annual Report on Form 10-K.

We face substantial competition in the solid waste services industry, and if we cannot successfully compete in the marketplace, our business, financial condition and results of operations may be materially adversely affected.

The solid waste services industry is highly competitive, has undergone a period of consolidation and requires substantial labor and capital resources. The markets in which we compete are served by, or are adjacent to markets served by, one or more of the large national or super regional solid waste companies, as well as numerous regional and local solid waste companies. Intense competition exists not only to provide services to customers, but also to acquire other businesses within each market. Some of our competitors have significantly greater financial and other resources than we do. From time to time, competitors may reduce the price of their services in an effort to expand market share or to win a competitively bid contract. These practices may require us to reduce the pricing of our services and may result in a loss of business or revenues.

As is generally the case in our industry, municipal contracts are typically subject to periodic competitive bidding. We may not be the successful bidder to obtain or retain these contracts. If we are unable to compete with larger and better capitalized companies or replace municipal contracts lost through the competitive bidding process with comparable contracts or other revenue sources within a reasonable time period, our revenues would decrease and our operating results could be materially adversely affected.

In our solid waste disposal markets, we also compete with operators of alternative disposal and recycling facilities and with counties, municipalities and solid waste districts that maintain their own solid waste collection, recycling and disposal operations. We are also facing increased competition from companies which seek to use parts of the waste stream as feedstock for renewable energy supplies. Public entities may have financial advantages because of their ability to charge user fees or similar charges, impose taxes and apply resulting revenues, access tax-exempt financing, transport waste to disposal sites outside of the northeastern markets, and, in some cases, utilize government subsidies.

In addition, we may be impacted by the development and commercialization of disruptive technologies that may materially change how waste management services are provided. If we are unable to gain access to these technologies or to compete effectively against them, our financial results may suffer.

Our growth strategy focuses on complementing or expanding our business through the acquisition of companies or assets, or the development of new operations. However, we may be unable to complete these transactions and, if executed, these transactions may not improve our business or may pose significant risks and could have a negative effect on our operations.

Our growth strategy includes engaging in acquisitions or developing operations or assets with the goal of complementing or expanding our business. We have made, and we may make in the future, acquisitions to densify existing operations, expand service areas and grow services for our customers. These acquisitions may include "tuck-in" acquisitions within our existing markets, acquisitions of assets that are adjacent to or outside of our existing markets, or larger, more strategic acquisitions. In addition, from time to time we may acquire businesses that are complementary to our core business strategy. We may not be able to identify suitable acquisition candidates, and if we identify suitable acquisition candidates, we may be unable to successfully negotiate the acquisition at a price or on terms and conditions acceptable to us. Furthermore, we may be unable to obtain the necessary regulatory approvals to complete potential acquisitions.

Our ability to achieve the benefits from acquired businesses, including cost savings and operating efficiencies, depends in part on our ability to successfully integrate the operations of such acquired businesses with our operations. The integration of acquired businesses and other assets may require significant management time and resources that would otherwise be available for the ongoing management of our existing operations. Any operations, properties or facilities that we acquire may be subject to unknown liabilities, such as undisclosed environmental contamination, or other environmental liabilities, including off-site disposal liability for which we would have no recourse, or only limited recourse, to the former owners of such operations or properties. As a result, if claims for liabilities were asserted against us based upon ownership of an acquired property, we might

be required to pay significant sums to settle it, which could adversely affect our financial results and cash flows. For information regarding our business acquisitions, see Note 5, *Business Combinations* to our consolidated financial statements included under Item 8. "Financial Statements and Supplementary Data" of this Annual Report on Form 10-K.

The waste industry is subject to extensive government regulations, including environmental laws and regulations, and we incur substantial costs to comply with such laws and regulations. Failure to comply with environmental or other laws and regulations, as well as enforcement actions and litigation arising from an actual or perceived breach of such laws and regulations, could subject us to fines, penalties, and judgments, and impose limits on our ability to operate and expand.

We are subject to potential liability and restrictions under environmental laws and regulations, including potential liability and restrictions arising from or relating to the transportation, handling, recycling, generation, treatment, storage and disposal of wastes, the presence, release, discharge or emission of pollutants, and the investigation, remediation and monitoring of impacts to soil, surface water, groundwater and other environmental media including natural resources, as a result of the actual or alleged presence, release, discharge or emission of hazardous substances, pollutants or contaminants on, at, under or migrating from our properties, or in connection with our operations. The waste management industry has been and will continue to be subject to regulation, including permitting and related financial assurance requirements, as well as attempts to further regulate the industry, including efforts to regulate and limit the emission of greenhouse gases to ameliorate the effect of climate change. Our solid waste operations are subject to a wide range of federal, state and, in some cases, local environmental, odor and noise and land use restrictions. If we are not able to comply with the requirements that apply to a particular facility or if we operate in violation of the terms and conditions of, or without the necessary approvals or permits, we could be subject to administrative or civil, and possibly criminal, fines and penalties, and we may be required to spend substantial capital to bring an operation into compliance, to temporarily or permanently discontinue activities, and/or take corrective actions, possibly including removal of landfilled materials. Those costs or actions could be significant to us and affect our results of operations, cash flows, and available capital. Environmental and land use laws and regulations also affect our ability to expand and, in the case of our solid waste operations, may dictate those geographic areas from which we must, or, from which we may not, accept solid waste. Those laws and regulations may limit the overall size and daily solid waste volume that may be accepted by a solid waste operation. If we are not able to expand or otherwise operate one or more of our facilities because of limits imposed under such laws, we may be required to increase our utilization of disposal facilities owned by third-parties, which could reduce our revenues and/or operating margins. The foregoing includes recent changes in solid waste laws of the State of Maine, which we do not anticipate will have a material effect on our business, results of operations, financial condition and/or liquidity, but which may negatively impact our operating results in the form of lower revenues or increased costs and/or liabilities.

We have historically grown through acquisitions and expect to make additional acquisitions in the future. We have tried and will continue to try to evaluate and limit environmental risks and liabilities presented by businesses to be acquired prior to the acquisition. It is possible that some liabilities may prove to be more difficult or costly to identify or address than we anticipate. It is also possible that government officials responsible for enforcing environmental laws and regulations may believe an issue is more serious than we expect, or that we will fail to identify or fully appreciate an existing liability before we become responsible for addressing it. Some of the legal sanctions to which we could become subject could cause the suspension or revocation of a permit, prevent us from, or delay us in, obtaining or renewing permits to operate or expand our facilities, or harm our reputation.

In addition to the costs of complying with environmental laws and regulations, we incur costs in connection with environmental proceedings and litigation brought against us by government agencies and private parties. We are, and may be in the future, a defendant in lawsuits brought by parties alleging environmental damage, including natural resource damage, personal injury, and/or property damage or impairment, or seeking to impose civil penalties, injunctive relief or overturn or prevent the issuance of an operating permit or authorization, all of which may result in us incurring significant liabilities.

The conduct of our businesses is also subject to various other laws and regulations administered by federal, state and local governmental agencies, including tax laws, employment laws, privacy laws and competition laws, among others. New laws, regulations or governmental policy and their related interpretations, or changes in any of the foregoing, including taxes or other limitations on our services, may alter the environment in which we do business.

In certain jurisdictions, we are subject to compliance with specific obligations under competition laws due to our competitive position in those jurisdictions. Failure to comply with these requirements or other laws or regulations could subject us to enforcement actions or financial penalties which could have a material adverse effect on our business.

We may be unable to obtain or maintain required permits or to expand existing permitted capacity of our landfills, which could decrease our revenue and increase our costs.

We are required to obtain government permits to operate our facilities, including all of our landfills. There is no guarantee that we will be able to obtain the requisite permits and, even if we could, that any permit (and any existing permits we currently hold) will be renewed or modified as needed to fit our business needs. Localities where we operate generally seek to regulate some or all landfill and transfer station operations, including siting and expansion of operations. The laws and regulations

adopted by municipalities in which our landfills and transfer stations are located may limit or prohibit the expansion of a landfill or transfer station, as well as the amount of solid waste that we can accept at the landfill or transfer station on a daily, quarterly or annual basis, and any effort to acquire or expand landfills and transfer stations, which typically involves a significant amount of time and expense. In addition, state laws applicable to certain of our landfills require that the state determine whether acceptance of waste at the landfill not generated within the state provides a substantial public benefit. Despite our best efforts, we may not be successful in obtaining new landfill or transfer station sites, including a landfill under development by us in Dalton, New Hampshire ("Granite State Landfill"), or expanding the permitted capacity of any of our current landfills and transfer stations. Based on currently available information, we believe that it may not be likely that the Granite State Landfill will be fully permitted, constructed and operational by the end of the fiscal year ending December 31, 2027 ("fiscal year 2027"). Given our current expected run rate and remaining available capacity at our NCES Landfill in Bethlehem, New Hampshire, we may consume all remaining permitted capacity at our NCES Landfill during fiscal year 2027. If we are unable to develop additional disposal and transfer station capacity, our ability to achieve economies of scale from the internalization of our waste stream will be limited. If we fail to receive new landfill permits or renew existing permits, we may incur landfill asset impairment and other charges associated with accelerated closure. See Note 13, *Commitments and Contingencies* to our consolidated financial statements included under Item 8. "*Financial Statements and Supplementary Data*" of this Annual Report on Form 10-K for disclosure about legal matters impacting our permitting efforts.

Fluctuations in commodity prices and diminished markets for recyclable materials that we sell to customers may adversely affect our results of operations and cash flows.

Our processing business involves the purchase and sale of recyclable materials, some of which are priced on a commodity basis. Our results of operations and cash flows may be adversely affected by falling purchase or resale prices or market requirements for recyclable materials. The resale and purchase prices of, and market demand for, recyclable materials are subject to changes in economic conditions and numerous other factors beyond our control, which may result in decreased demand of recyclable materials and lower commodity prices. The commodity markets continue to see ongoing variable pricing, with significant price declines associated with excess inventory, inflation and tepid consumer spending due to deteriorating global economic activity and concerns about a recession. Significant price fluctuations may adversely affect our results of operations and cash flows in the form of higher operating costs or lower revenues. Although we have restructured many of our recycling contracts to require the respective municipalities to absorb some of the impact of declining commodity prices, these restructured contracts have had the impact of significantly increasing the costs to municipalities for continuing to offer recycling services to their customers. In the event that the costs of such services become excessive, such municipalities could discontinue their recycling programs altogether, which could materially affect our financial results. See Item 7A. "*Quantitative and Qualitative Disclosure About Market Risk*" of this Annual Report on Form 10-K for further discussion over the impacts of commodity prices on our operations.

We are upgrading our technology infrastructure and there can be no assurance that our efforts will be completed on the projected timetable or that our investment will result in the expected gains.

Upgrades to our technology infrastructure are ongoing and include a limited pilot of a new service management system, on-board computers, dynamic route optimization, procurement optimization, cybersecurity initiatives, and other systems that we believe will improve our internal processes and the productivity of our employees. These upgrades are complex and there can be no assurance that they will result in expected productivity gains and operating cost reductions on our anticipated timeline, if at all. In addition, if we are not able to maintain the security of our data, confidential information about us or our customers or suppliers could be inadvertently disclosed, subjecting us to possible expenses and other liabilities as well as adversely impacting customer and other third-party relationships. If we are unable to benefit from new technologies, we may be at a competitive disadvantage to other companies in the waste management industry, in which case our operating results could suffer.

Significant disruptions in our information technology systems or cybersecurity incidents could negatively impact our business and our relationships with customers, adversely affecting our financial results and exposing us to litigation risk.

We use computer technology, including computer and information networks, in substantially all aspects of our business operations. We also use mobile devices, social networking and other online activities to connect with our customers and for our employees to be able to process transactions and provide information that we feel is necessary to manage our business. Our information technology systems may be susceptible to damage, disruptions or shutdowns due to power outages, hardware failures, telecommunication failures, employee malfeasance, user errors, catastrophes or other unforeseen events. If we were to experience a prolonged disruption in the information technology systems that involve our internal communications or our interactions with our customers, it could result in the loss of sales and customers and significant incremental costs, which could adversely affect our business. In addition, the use of our information technology systems give rise to cybersecurity risks, including security breach, espionage, system disruption, theft and inadvertent release of information. Our business involves the storage and transmission of numerous classes of sensitive and/or confidential information and intellectual property, including customers' personal information, private information about employees, and financial and strategic information about us and our

business partners. We also rely on a Payment Card Industry compliant third party to protect our customers' credit card information. Further, as we pursue our strategy to grow through acquisitions and to pursue new initiatives that improve our operations and cost structure, we are also expanding and improving our information technologies, resulting in a larger technological presence and corresponding exposure to cybersecurity risk. If we fail to assess and identify cybersecurity risks associated with acquisitions and new initiatives, we may become increasingly vulnerable to such risks. Additionally, while we have implemented and continue to implement measures to prevent security breaches and cyber incidents, our preventive or detection measures and incident response efforts may not be entirely effective, especially as cybersecurity attacks continue to evolve and become more sophisticated, often are not recognized until launched against a target and may be difficult to detect for a long time. We are also exposed to cybersecurity risk with respect to data and other information that may be shared with third parties in connection with our business operations, if such third parties become subject to security breaches or other releases of information.

If company, personal or otherwise protected information is improperly accessed, tampered with or distributed, we may face significant financial exposure, including incurring significant costs to remediate possible injury to the affected parties. We may also be subject to sanctions and civil or criminal penalties if we are found to be in violation of the privacy or security rules under laws protecting confidential information. If our established network of security controls, policy enforcement mechanisms, educational awareness programs and monitoring systems that we use to address these threats to technology fail, the theft, destruction, loss, misappropriation, or release of sensitive and/or confidential information or intellectual property, or interference with our information technology systems or the technology systems of third parties on which we rely, could result in business disruption, negative publicity, brand damage, violation of privacy laws, loss of customers, potential litigation and liability and competitive disadvantage. While we have purchased insurance coverage for cybersecurity risks, there can be no assurance that any such coverage would be adequate to cover potential liability.

Our business is geographically concentrated and is therefore subject to regional economic downturns.

Our operations and customers are concentrated principally in New England, New York, and Pennsylvania. Therefore, our business, financial condition and results of operations are susceptible to regional economic downturns and other regional factors, including state regulations and budget constraints and severe weather conditions. In addition, as we seek to expand in our existing markets, opportunities for growth within this region will become more limited and the geographic concentration of our business will increase.

Our results of operations and financial condition may be negatively affected if we inadequately accrue for final capping, closure and post-closure costs or by the timing of these costs for our waste disposal facilities.

We have material financial obligations relating to final capping, closure and post-closure costs of our existing owned or operated landfills and will have material financial obligations with respect to any disposal facilities that we may own or operate in the future. Once the permitted capacity of a particular landfill is reached and additional capacity is not authorized, or a determination is made to cease operations at a landfill due to other considerations, the landfill must be closed and capped, and we must begin post-closure maintenance. We establish accruals for the estimated costs associated with such final capping, closure and post-closure obligations over the anticipated useful life of each landfill on a per ton basis. We have provided and expect that we will in the future provide accruals for financial obligations relating to final capping, closure and post-closure costs of our owned or operated landfills, generally for a term of 30 years after closure of a landfill. Our financial obligations for final capping, closure or post-closure costs could exceed the amounts accrued or amounts otherwise receivable pursuant to trust funds established for this purpose. Such a circumstance could result in significant unanticipated charges that would have an adverse effect on our business.

In addition, the timing of any such final capping, closure or post-closure costs, which exceed established accruals, may further negatively affect our business. Since we will be unable to control the timing and amounts of such costs, we may be forced to delay investments or planned improvements in other parts of our business or we may be unable to meet applicable financial assurance requirements. Any of the foregoing would negatively affect our business and results of operations.

For information regarding our final capping, closure and post-closure obligations, see Note 10, *Final Capping, Closure and Post-Closure Costs* to our consolidated financial statements included under Item 8. "Financial Statements and Supplementary Data" of this Annual Report on Form 10-K.

Our insurance coverage and self-insurance reserves may be inadequate to cover all significant risk exposures.

The provision of environmental services, including the operation of landfills, a substantial fleet of trucks and other waste-related assets, involves risks. These risks include, among others, the risk of truck accidents, equipment defects, malfunctions and failures, improper use of dangerous equipment, the release of hazardous substances, fire and explosion, any of which could result in environmental liability, personal injury, loss of life, business interruption or property damage or destruction. We carry a range of insurance policies intended to protect our assets and operations, including general liability insurance, property damage and environmental risk insurance. While we endeavor to purchase insurance coverage appropriate to our risk assessment, and seek to minimize our exposure to these risks through maintenance, training and compliance programs, we are unable to predict with certainty the frequency, nature or magnitude of claims for direct or consequential damages, and as a result our insurance program may not fully cover us for losses we may incur. In addition, as a result of a number of catastrophic weather and other events in the United States, insurance companies have incurred substantial losses and accordingly in many cases they have substantially reduced the nature and amount of insurance coverage available to the market, have broadened exclusions, and/or have substantially increased the cost of such coverage. It is likely that the tight insurance markets will continue into the foreseeable future. A partially or completely uninsured claim against us (including liabilities associated with cleanup or remediation at our facilities), if successful and of sufficient magnitude, could have a material adverse effect on our business, financial condition and results of operations. Any future difficulty in obtaining insurance could also impair our ability to secure future contracts, which may be conditioned upon the availability of adequate insurance coverage. In addition, claims associated with risks we have retained under our self-insurance programs may exceed our recorded reserves which could negatively impact future earnings. See Note 3, *Summary of Significant Accounting Policies* to our consolidated financial statements included under Item 8, "Financial Statements and Supplementary Data" of this Annual Report on Form 10-K for disclosure about our self-insurance liabilities and related costs.

We could be precluded from entering into contracts or obtaining or maintaining permits or certain contracts if we are unable to obtain third-party financial assurance to secure our contractual obligations.

Public solid waste collection, recycling and disposal contracts, and obligations associated with landfill closure and post-closure typically require performance or surety bonds, letters of credit or other means of financial assurance to secure our contractual performance. We currently obtain performance and surety bonds from Evergreen National Indemnity Company, in which we hold a 19.9% equity interest. If we are unable to obtain the necessary financial assurance in sufficient amounts or at acceptable rates, we could be precluded from entering into additional municipal contracts or from obtaining or retaining landfill management contracts or operating permits.

We may be required to write-off or impair capitalized costs or intangible assets in the future or we may incur restructuring costs or other charges, each of which could harm our earnings.

In accordance with generally accepted accounting principles in the United States, we capitalize certain expenditures and advances relating to our acquisitions, landfills, cost method investments and development projects. In addition, we have considerable unamortized assets. From time to time in future periods, we may be required to incur a charge against earnings in an amount equal to any unamortized capitalized expenditures and advances, net of any portion thereof that we estimate will be recoverable, through sale or otherwise, relating to: (1) any operation or other asset that is being sold, permanently shut down or impaired or has not generated or is not expected to generate sufficient cash flow; (2) any landfill or development project, or growth oriented investment that is not expected to be successfully completed or generate a sufficient return on investment; and (3) any goodwill or other intangible assets that are determined to be impaired.

In response to such charges and costs and other market factors, we may be required to implement restructuring plans in an effort to reduce the size and cost of our operations and to better match our resources with our market opportunities. As a result of such actions, we would expect to incur restructuring expenses and accounting charges which may be material. Several factors could cause a restructuring to adversely affect our business, financial condition and results of operations, including potential disruption of our operations, the development of our landfill capacity and recycling technologies and other aspects of our business. Employee morale and productivity could also suffer and result in unintended employee attrition. Any restructuring would require substantial management time and attention and may divert management from other important work. Moreover, we could encounter delays in executing any restructuring plans, which could cause further disruption and additional unanticipated expense.

Our revenues and our operating income experience seasonal fluctuations, which could adversely affect our operational results in certain quarters and cause our results to fluctuate.

Our transfer and disposal revenues have historically been higher in the late spring, summer and early fall months, which when combined with operating and other fixed costs that remain constant throughout the fiscal year, results in seasonal fluctuations in our operating performance. This seasonality reflects the lower volume of solid waste during the late fall, winter and early spring months primarily because the volume of waste relating to C&D activities decreases substantially during the winter months in the northeastern United States where we are geographically located.

Adverse weather conditions, including those brought about by climate change, may limit our operations and increase the costs of collection and disposal.

Our collection and landfill operations could be adversely impacted by extended periods of inclement weather, or by increased severity of weather, including as a result of climate change. Adverse weather could increase our operating costs associated with the collection and disposal of waste, delay the collection and disposal of waste, reduce the volume of waste delivered to our disposal sites, increase the volume of waste collected under our existing contracts (without corresponding compensation), decrease the throughput and operating efficiency of our materials recycling facilities, or delay construction or expansion of our landfill sites and other facilities.

Efforts by labor unions to organize our employees could divert management attention and increase our operating expenses.

Certain groups of our employees have chosen to be represented by unions, and we have negotiated collective bargaining agreements with these groups. The negotiation of collective bargaining agreements could divert management attention and result in increased operating expenses and lower net income (or increased net loss). If we are unable to negotiate acceptable collective bargaining agreements, we may be subject to union-initiated work stoppages, including strikes. Depending on the type and duration of any labor disruptions, our revenues could decrease and our operating expenses could increase, which could adversely affect our financial condition, results of operations and cash flows. As of January 31, 2023, approximately 5% of our employees were represented by unions.

Our enterprise risk management process may not be effective in mitigating the risks to which we are subject, or in reducing the potential for losses in connection with such risks.

Our enterprise risk management framework is designed to minimize or mitigate the risks to which we are subject, as well as any losses stemming from such risks. Although we seek to identify, measure, monitor, report, and control our exposure to such risks, and employ a broad and diversified set of risk monitoring and mitigation techniques in the process, those techniques are inherently limited in their ability to anticipate the existence or development of risks that are currently unknown and unanticipated. The ineffectiveness of our enterprise risk management framework in mitigating the impact of known risks or the emergence of previously unknown or unanticipated risks may result in our incurring losses in the future that could adversely impact our financial condition and results of operations.

We may be adversely affected by market responses to our environmental, social and governance ("ESG") practices and may not be effective in mitigating the risks associated with ESG expectations and emerging ESG regulations, or in reducing the potential for losses in connection with such risks.

We are subject to risks related to our ESG activities and disclosures that may adversely affect our market outlook, brand and reputation, and financial performance, which may impact our ability to achieve our long-term business objectives. Our ESG practices are designed to bring our actions and impacts into alignment with broader societal goals and environmental limits. Although we have developed a framework and perform a global reporting initiative to identify, measure, monitor, report, and control our ESG practices and related exposure to ESG expectations and regulations, we may not achieve our sustainability goals and commitments, or we may improperly report on our progress toward achieving our sustainability goals and commitments, which could result in negative publicity that could affect our brand and reputation, and accordingly, adversely impact our financial condition and results of operations.

Risks Related to Our Indebtedness

We have substantial debt and have the ability to incur additional debt. The principal and interest payment obligations of such debt may restrict our future operations.

As of December 31, 2022, we had approximately \$603.5 million of outstanding principal indebtedness (excluding approximately \$27.9 million of outstanding letters of credit issued under our term loan A facility ("Term Loan Facility") and revolving line of credit facility ("Revolving Credit Facility" and, together with the Term Loan Facility, the "Credit Facility"). This amount of indebtedness and our debt service requirements may limit our financial flexibility to access additional capital and make capital expenditures and other investments in our business, to withstand economic downturns and interest rate increases, to plan for or react to changes in our business and our industry, and to comply with the financial and other covenants included in the Credit Facility. We may also be subject to higher interest expense based on how we perform against financial and other covenants. Additionally, if we do not comply with financial and other covenants, we may be required to take actions such as reducing or delaying capital expenditures, selling assets, restructuring or refinancing all or part of our existing Credit Facility or seeking additional equity capital. Our ability to satisfy our obligations and to reduce our total debt depends on our future operating performance and on economic, financial, competitive and other factors, many of which are beyond our control. As of December 31, 2022, we had \$266.1 million of unused commitments remaining under the Revolving Credit Facility, subject to customary borrowing conditions, and approximately \$71.2 million in cash and cash equivalents available for any future payment obligations.

An event of default under any of our debt agreements could permit some of our lenders, including the lenders under the Credit Facility, to declare all amounts borrowed from them to be immediately due and payable, together with accrued and unpaid interest, or, in the case of the Credit Facility, terminate the commitment to make further credit extensions thereunder, which could, in turn, trigger cross-defaults under other debt obligations. If we were unable to repay debt to our lenders, or were otherwise in default under any provision governing our outstanding debt obligations, our secured lenders could proceed against us and against the collateral securing that debt.

Risks Related to Our Common Stock

Holders of our Class A common stock are entitled to one vote per share, and holders of our Class B common stock are entitled to ten votes per share. The lower voting power of the Class A common stock may negatively affect the attractiveness of our Class A common stock to investors and, as a result, its market value.

We have two classes of common stock: Class A common stock, which is entitled to one vote per share, and Class B common stock, which is entitled to ten votes per share. All of the outstanding Class B common stock are beneficially owned by John W. Casella, our Chairman and Chief Executive Officer; certain trusts for the benefit of Mr. John Casella and his spouse; and Douglas R. Casella, a member of our Board of Directors who is Mr. John Casella's brother. Except for the election of one of our directors and in certain limited circumstances required by applicable law, holders of Class A common stock and Class B common stock vote together as a single class on all matters to be voted on by our stockholders. As of January 31, 2023, an aggregate of 988,200 shares of our Class B common stock, representing 9,882,000 votes, were outstanding. Based on the number of shares of common stock outstanding as of January 31, 2023, the shares of our Class A common stock and Class B common stock beneficially owned by John W. Casella and Douglas R. Casella represented approximately 16.6% of the aggregate voting power of our stockholders. Consequently, John W. Casella and Douglas R. Casella are able to substantially influence all matters for stockholder consideration and constitute, and are expected to continue to constitute, a significant portion of the shares entitled to vote on all matters requiring approval by our stockholders. The difference in the voting power of our Class A common stock and Class B common stock could diminish the market value of our Class A common stock.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

Our headquarters is located at 25 Greens Hill Lane, Rutland, Vermont 05701, where we currently lease approximately 12,000 square feet of office space.

Our principal property and equipment consists of land, landfills, buildings, machinery and equipment, rolling stock and containers. At January 31, 2023, we operated eight subtitle D landfills, four of which we own and four of which we lease; one landfill permitted to accept C&D materials that we own; 65 transfer stations, 35 of which we own, ten of which we lease and 20 of which we operate under a contract; 49 solid waste collection facilities, 30 of which we own, 18 of which we lease and one of which we operate under a contract; 26 recycling processing facilities, 14 of which we own, nine of which we lease and three of which we operate under a contract; three landfill gas-to-energy facilities that we own; and 30 corporate office and other administrative facilities, ten of which we own and 20 of which we lease (See "Operational Overview" in Item 1. "Business" of this Annual Report on Form 10-K for property information by operating segment and location). We believe that our property and equipment are adequately maintained and sufficient for our current operations.

ITEM 3. LEGAL PROCEEDINGS

The information required by this Item is provided in Note 13, *Commitments and Contingencies* to our consolidated financial statements included in Item 8. "Financial Statements and Supplementary Data" of this Annual Report on Form 10-K.

Legal Proceedings over Certain Environmental Matters Involving Governmental Authorities with Possible Sanctions of \$1,000,000 or More

Item 103 of the Securities and Exchange Commission's Regulation S-K requires disclosure of certain environmental matters when a governmental authority is a party to the proceedings and the proceedings involve potential monetary sanctions unless we reasonably believe the monetary sanctions will not equal or exceed a specified threshold which we determine is reasonably designed to result in disclosure of any such proceeding that is material to our business or financial condition. Pursuant to Item 103, we have determined such disclosure threshold to be \$1,000,000. We have no matters to disclose in accordance with that requirement.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Our Class A common stock trades on the Nasdaq Global Select Market ("Nasdaq Stock Market") under the symbol CWST. There is no established trading market for our Class B common stock. As of January 31, 2023, there were approximately 600 holders of record of our Class A common stock and two holders of record of our Class B common stock.

For purposes of calculating the aggregate market value of the shares of common stock held by non-affiliates, as shown on the cover page of this Annual Report on Form 10-K, we have assumed that all the outstanding shares of Class A common stock were held by non-affiliates except for the shares beneficially held by directors and executive officers and funds represented by them.

Dividends

No dividends have ever been declared or paid on our common stock and we do not anticipate paying any cash dividends on our common stock in the foreseeable future.

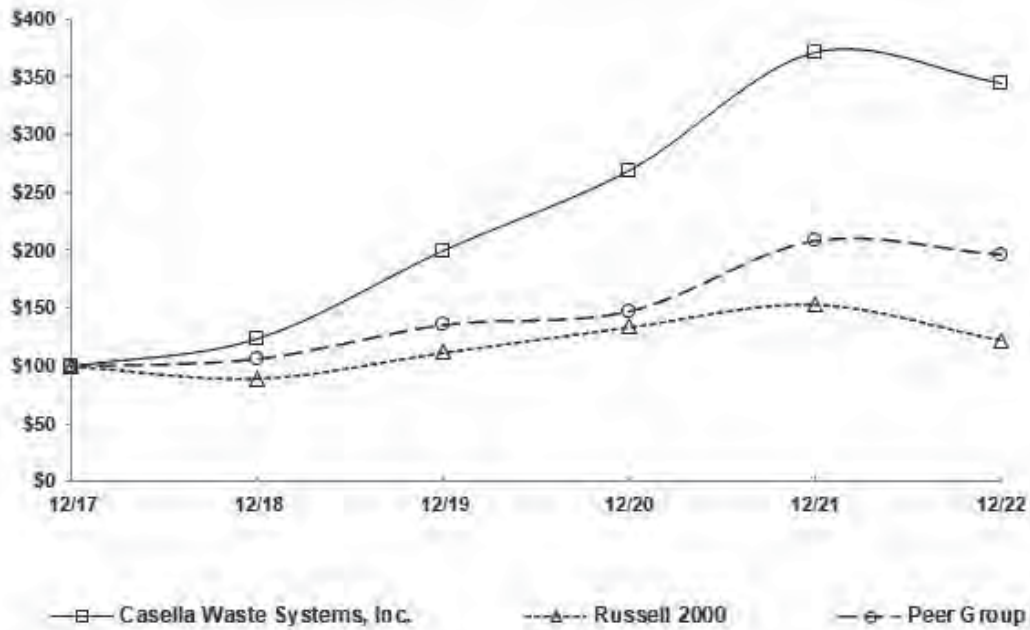
The information required by Item 201(d) of Regulation S-K is included in Part III of this Annual Report on Form 10-K.

Stock Performance Graph

The following performance graph and related information shall not be deemed "soliciting material" or "filed" with the Securities and Exchange Commission, nor shall such information be incorporated by reference into any future filing under the Securities Act of 1933 or the Securities Exchange Act of 1934, each as amended, except to the extent that we specifically incorporate it by reference into such filing.

The stock performance graph below compares the percentage change in cumulative stockholder return on our Class A common stock for the period from December 31, 2017 through December 31, 2022, with the cumulative total return on the Russell 2000 Index and Peer Group. The stock performance graph assumes the investment on December 31, 2017 of \$100.00 in our Class A common stock at the closing price on such date, in the Russell 2000 Index and the Peer Group, and that dividends are reinvested. No dividends have been declared or paid on our Class A common stock.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*
Among Casella Waste Systems, Inc., the Russell 2000 Index,
and a Peer Group



*\$100 invested on 12/31/17 in stock or index, including reinvestment of dividends.
Fiscal year ending December 31.

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	December 31, 2017	December 31, 2018	December 31, 2019	December 31, 2020	December 31, 2021	December 31, 2022
Casella Waste Systems, Inc.	\$ 100.00	\$ 123.76	\$ 199.96	\$ 269.11	\$ 371.07	\$ 344.53
Russell 2000	\$ 100.00	\$ 88.99	\$ 111.70	\$ 134.00	\$ 153.85	\$ 122.41
Peer Group	\$ 100.00	\$ 106.36	\$ 135.70	\$ 147.40	\$ 208.15	\$ 196.13

(1) The Peer Group is comprised of GFL Environmental, Inc., Waste Connections Inc., Waste Management, Inc. and Republic Services, Inc.

ITEM 6. [RESERVED]

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion of our financial condition and results of operations should be read in conjunction with the consolidated financial statements and notes thereto, and other financial information, included elsewhere in this Annual Report on Form 10-K. This discussion contains forward-looking statements and involves numerous risks and uncertainties. Our actual results may differ materially from those contained in any forward-looking statements.

Discussion and analysis of our financial condition and results of operations for the fiscal year ended December 31, 2021 ("fiscal year 2021") compared to our financial condition and results of operations for the fiscal year ended December 31, 2020 is included under the heading Item 7. "*Management's Discussion and Analysis of Financial Condition and Results of Operations*" in our Annual Report on Form 10-K for the fiscal year ended December 31, 2021 as filed with the Securities and Exchange Commission on February 18, 2022.

Company Overview

Casella Waste Systems, Inc., a Delaware corporation, and its wholly-owned subsidiaries (collectively, "we", "us" or "our"), is a regional, vertically integrated solid waste services company. We provide resource management expertise and services to residential, commercial, municipal, institutional and industrial customers, primarily in the areas of solid waste collection and disposal, transfer, recycling and organics services. We provide integrated solid waste services in seven states: Vermont, New Hampshire, New York, Massachusetts, Connecticut, Maine and Pennsylvania, with our headquarters located in Rutland, Vermont. We manage our solid waste operations on a geographic basis through two regional operating segments, the Eastern and Western regions, each of which provides a full range of solid waste services. We manage our resource-renewal operations through the Resource Solutions operating segment, which leverages our core competencies in materials processing, industrial recycling, organics and resource management service offerings to deliver a comprehensive solution for our larger commercial, municipal, institutional and industrial customers that have more diverse waste and recycling needs. Legal, tax, information technology, human resources, certain finance and accounting and other administrative functions are included in our Corporate Entities segment.

As of January 31, 2023, we owned and/or operated 49 solid waste collection operations, 65 transfer stations, 26 recycling facilities, eight Subtitle D landfills, three landfill gas-to-energy facilities and one landfill permitted to accept construction and demolition materials.

Acquisitions and Divestitures

Acquisitions

We have made in the past, and we may make in the future, acquisitions to densify existing operations, expand service areas, and grow services for our customers. These acquisitions may include "tuck-in" acquisitions within our existing markets, assets that are adjacent to or outside of our existing markets, or larger, more strategic acquisitions. In addition, from time to time, we may acquire businesses that are complementary to our core business strategy. We face competition for acquisition targets, particularly the larger and more meaningful targets, but we believe that our strong relationships and reputation help to offset this factor.

We have a business development team that identifies acquisition candidates, categorizes the opportunity by strategic fit and financial synergies, establishes contact with the appropriate representative of the acquisition candidate and gathers further information on the acquisition candidate.

In the fiscal year ended December 31, 2022 ("fiscal year 2022"), we acquired fourteen businesses primarily related to our solid-waste operations, including, among others, solid-waste collection, recycling, transfer station and transportation businesses for total consideration of \$82.7 million, including \$76.6 million in cash, \$1.3 million in non-cash consideration and \$4.8 million in holdbacks to sellers and contingent consideration.

In fiscal year 2021, we acquired ten businesses primarily related to our solid-waste operations, including, among others, solid-waste collection and transfer station businesses and a residential, commercial and roll-off collection business in eastern Connecticut that operates a rail-served construction and demolition processing and waste transfer facility, a waste transfer station, a single-stream recycling facility, and several other recycling operations whose assets and liabilities are allocated between our Eastern region and Resource Solutions operating segments for total consideration of \$171.7 million, including \$166.5 million in cash and \$5.2 million in holdbacks to sellers and contingent consideration.

Divestitures

From time to time, we may sell or divest certain investments or other components of our business. These divestitures may be undertaken for a number of reasons, including: to generate proceeds to pay down debt; as a result of a determination that the specified asset will provide inadequate returns to us or that the asset no longer serves a strategic purpose in connection with our business; or as a result of a determination that the asset may be more valuable to a third-party. We will continue to look to divest certain activities and investments that no longer enhance or complement our core business if the right opportunity presents itself.

Results of Operations

Revenues

We manage our solid waste operations, which include a full range of solid waste services, on a geographic basis through two regional operating segments, which we designate as the Eastern and Western regions. Revenues in our Eastern and Western regions consist primarily of fees charged to customers for solid waste collection and disposal services, including landfill, transfer station and transportation, landfill gas-to-energy, and processing services. We derive a substantial portion of our collection revenues from commercial, industrial and municipal services that are generally performed under service agreements or pursuant to contracts with municipalities. The majority of our residential collection services are performed on a subscription basis with individual property owners or occupants. Landfill and transfer customers are charged a tipping fee on a per ton basis for disposing of their solid waste at our disposal facilities and transfer stations. We also generate and sell electricity at certain of our landfill facilities. We manage our resource-renewal operations through the Resource Solutions operating segment, which includes processing services, and non-processing services, which we refer to as our Customer Solutions business. Revenues from processing services are derived from customers in the form of processing fees, tipping fees, and commodity sales, primarily comprised of newspaper, corrugated containers, plastics, ferrous and aluminum, and organic materials such as our earthlife® soils products including fertilizers, composts and mulches. Revenues from our Customer Solutions business are derived from brokerage services and overall resource management services providing a wide range of environmental services and resource management solutions to large and complex organizations, as well as traditional collection, disposal and recycling services provided to large account multi-site customers.

The table below shows revenue attributable to services provided (in millions) for the following periods:

	Fiscal Year Ended December 31,				\$ Change
	2022		2021		
Collection	\$ 539.6	49.7 %	\$ 442.7	49.8 %	\$ 96.9
Disposal	228.0	21.0 %	197.0	22.2 %	31.0
Power	7.5	0.7 %	5.1	0.6 %	2.4
Processing	10.1	1.0 %	9.3	1.0 %	0.8
Solid waste	785.2	72.4 %	654.1	73.6 %	131.1
Processing	119.1	10.9 %	93.3	10.5 %	25.8
Customer Solutions	180.8	16.7 %	141.8	15.9 %	39.0
Resource Solutions	299.9	27.6 %	235.1	26.4 %	64.8
Total revenues	\$ 1,085.1	100.0 %	\$ 889.2	100.0 %	\$ 195.9

Solid waste revenues

A summary of the period-to-period change in solid waste revenues (dollars in millions and as percentage growth of solid waste revenues) follows:

	Period-to-Period Change For Fiscal Year 2022 vs Fiscal Year 2021	
	Amount	% Growth
Price	\$ 41.7	6.4 %
Volume	5.0	0.7 %
Surcharges and other fees	32.6	5.0 %
Commodity price and volume	2.3	0.3 %
Acquisitions	49.5	7.6 %
Solid waste revenues	\$ 131.1	20.0 %

Price.

The price change component in fiscal year 2022 solid waste revenues growth from the prior year is a result of the following:

- \$31.1 million from favorable collection pricing; and
- \$10.6 million from favorable disposal pricing associated with our landfills, transfer stations and, to a lesser extent, Western region transportation services.

Volume.

The volume change component in fiscal year 2022 solid waste revenues growth from the prior year is a result of the following:

- \$6.4 million from higher disposal volumes (\$4.5 million relates to higher transfer station volumes, \$1.0 million relates to higher third-party landfill volumes and \$0.9 million relates to higher transportation volumes); and
- \$0.2 million from higher processing volumes; partially offset by
- \$(1.6) million from lower collection volumes in our Western region associated with higher customer churn due to higher pricing, implementation of the energy and environmental fee ("E&E Fee(s)") on additional customers and customer deselection.

Surcharges and other fees.

The surcharges and other fees change component in fiscal year 2022 solid waste revenues growth from the prior year is primarily the result of higher E&E Fees and, to a lesser extent, higher sustainability recycling adjustment fees ("SRA Fee(s)"). Higher E&E Fees associated with our fuel cost recovery program were a result of higher diesel fuel prices and a higher overall customer participation rate. Higher SRA Fees were a result of lower recycled commodity prices and a higher overall customer participation rate. See Item 7A. "Quantitative and Qualitative Disclosures about Market Risk" included in this Annual Report on Form 10-K for additional information regarding our E&E Fee and SRA Fee.

Commodity price and volume.

The commodity price and volume change component in fiscal year 2022 solid waste revenues growth from the prior year is primarily due to favorable energy pricing in our Western region.

Acquisitions.

The acquisitions change component in fiscal year 2022 solid waste revenues growth is a result of increased acquisition activity within our Eastern and Western region operating segments in line with our growth strategy, including the timing and acquisition of twelve businesses related to our solid-waste operations in fiscal year 2022 and ten businesses related to our solid-waste operations in the fiscal year 2021.

Resource Solutions revenues

The change component in fiscal year 2022 resource solutions revenues growth of \$64.8 million from the prior year is the result of the following:

- \$42.9 million from acquisition activity;
- \$25.9 million on higher volumes from our Customer Solutions business, favorable pricing and increased fees; partially offset by
- \$(3.5) million from unfavorable commodity pricing, partially offset by higher tipping fees and favorable other processing pricing; and
- \$(0.5) million from lower processing volumes mainly driven by lower recycled commodity volumes.

Operating Expenses

A summary of our cost of operations, general and administration and depreciation and amortization expenses is as follows (dollars in millions and as a percentage of total revenues):

	Fiscal Years Ended December 31,				\$ Change
	2022		2021		
Cost of operations	\$ 723.1	66.6 %	\$ 582.4	65.5 %	\$ 140.7
General and administration	\$ 133.4	12.3 %	\$ 118.8	13.4 %	\$ 14.6
Depreciation and amortization	\$ 126.4	11.6 %	\$ 103.6	11.6 %	\$ 22.8

Cost of Operations

Cost of operations includes: (i) direct costs, which consist of the costs of purchased materials and third-party transportation and disposal costs, including third-party tipping fees; (ii) direct labor costs, which include salaries, wages, incentive compensation and related benefit costs such as health and welfare benefits and workers compensation; (iii) direct operational costs, which include landfill operating costs such as accretion expense related to final capping, closure and post-closure obligations, leachate treatment and disposal costs and depletion of landfill operating lease obligations, vehicle insurance costs, host community fees and royalties; (iv) fuel costs used by our vehicles and in conducting our operations; (v) maintenance and repair costs relating to our vehicles, equipment and containers; and (vi) other operational costs including facility costs.

A summary of the major components of our cost of operations is as follows (dollars in millions and as a percentage of total revenues):

	Fiscal Years Ended December 31,				\$ Change
	2022		2021		
Direct costs	\$ 279.7	25.8 %	\$ 223.4	25.1 %	\$ 56.3
Direct labor costs	144.0	13.3 %	119.8	13.5 %	24.2
Direct operational costs	89.5	8.3 %	80.2	9.0 %	9.3
Fuel costs	48.3	4.4 %	26.9	3.0 %	21.4
Maintenance and repair costs	81.7	7.4 %	64.1	7.3 %	17.6
Other operational costs	79.9	7.4 %	68.0	7.6 %	11.9
	<u>\$ 723.1</u>	<u>66.6 %</u>	<u>\$ 582.4</u>	<u>65.5 %</u>	<u>\$ 140.7</u>

These cost categories may change from time to time and may not be comparable to similarly titled categories presented by other companies.

The most significant items impacting the changes in our cost of operations during fiscal year 2022 are summarized below:

- Direct costs increased in aggregate dollars due primarily to higher third-party hauling, transportation and disposal costs on (i) higher solid waste volumes driven by acquisition-related growth, (ii) higher fuel surcharges from third party haulers due to higher diesel fuel prices, (iii) higher third-party disposal rates due to inflationary pressures and (iv) higher volumes in our Customer Solutions business within our Resource Solutions operating segment; and higher purchased material costs on acquisition activity, partially offset by lower commodity prices in our Resource Solutions operating segment;
- Direct labor costs decreased as a percentage of revenues, while increasing in aggregate dollars due primarily to acquisition-related growth and wage inflation;
- Direct operational costs decreased as a percentage of revenues, while increasing in aggregate dollars due primarily to (i) higher landfill operating costs in our Western region due to severe winter weather earlier in the year and construction delays compounded with higher landfill volumes, (ii) higher vehicle insurance costs, (iii) acquisition-related growth and (iv) inflationary pressures; partially offset by lower host community and royalty fees;
- Fuel costs increased in aggregate dollars due primarily to higher fuel prices and higher volumes driven by acquisition-related growth. See Item 7A. "Quantitative and Qualitative Disclosures about Market Risk" included of this Annual Report on Form 10-K for additional information regarding our fuel costs;
- Maintenance and repair costs increased in aggregate dollars due primarily to higher fleet and container maintenance costs associated with acquisition-related growth and inflationary pressures; and
- Other operational costs decreased as a percentage of revenues, while increasing in aggregate dollars due primarily to higher facility costs driven by acquisition-related growth and inflationary pressures.

General and Administration

General and administration expense includes: (i) labor costs, which consists of salaries, wages, incentive compensation and related benefit costs such as health and welfare benefits and workers compensation costs related to management, clerical and administrative functions; (ii) professional service fees; (iii) bad debt expense; and (iv) other overhead costs including those associated with marketing, sales force and community relations efforts.

A summary of the major components of our general and administration expenses is as follows (dollars in millions and as a percentage of total revenues):

	Fiscal Years Ended December 31,				\$ Change
	2022		2021		
Labor costs	\$ 91.5	8.4 %	\$ 83.6	9.4 %	\$ 7.9
Professional fees	7.0	0.6 %	7.2	0.8 %	(0.2)
Provision for bad debt expense	2.0	0.2 %	1.7	0.2 %	0.3
Other	32.9	3.1 %	26.3	3.0 %	6.6
	<u>\$ 133.4</u>	<u>12.3 %</u>	<u>\$ 118.8</u>	<u>13.4 %</u>	<u>\$ 14.6</u>

These cost categories may change from time to time and may not be comparable to similarly titled categories presented by other companies.

The most significant items impacting the changes in our general and administration expense during fiscal year 2022 are summarized below:

- Labor costs decreased as a percentage of revenues, while increasing in aggregate dollars due primarily to acquisition-related growth, wage inflation and higher accrued incentive compensation associated with increased headcount, partially offset by lower equity compensation costs; and
- Other costs increased in aggregate dollars due primarily to inflationary pressures and an increase in general overhead costs to support business growth.

Depreciation and Amortization

Depreciation and amortization expense includes: (i) depreciation of property and equipment (including assets recorded for finance leases) on a straight-line basis over the estimated useful lives of the assets; (ii) amortization of landfill costs (including those costs incurred and all estimated future costs for landfill development and construction, along with asset retirement costs arising from closure and post-closure obligations) on a units-of-consumption method as landfill airspace is consumed over the total estimated remaining capacity of a site, which includes both permitted capacity and unpermitted expansion capacity that meets certain criteria for amortization purposes, and amortization of landfill asset retirement costs arising from final capping obligations on a units-of-consumption method as airspace is consumed over the estimated capacity associated with each final capping event; and (iii) amortization of intangible assets with a definite life, based on the economic benefit provided, or using the sum of years digits or straight-line methods over the definitive terms of the related agreements.

A summary of the major components of depreciation and amortization expense (dollars in millions and as a percentage of total revenues) follows:

	Fiscal Year Ended December 31,				\$ Change
	2022		2021		
Depreciation expense	\$ 78.1	7.2 %	\$ 62.3	7.0 %	\$ 15.8
Landfill amortization expense	31.6	2.9 %	30.3	3.4 %	1.3
Other amortization expense	16.7	1.5 %	11.0	1.2 %	5.7
	<u>\$ 126.4</u>	<u>11.6 %</u>	<u>\$ 103.6</u>	<u>11.6 %</u>	<u>\$ 22.8</u>

The period-to-period increase in depreciation expense and other amortization expense can be primarily attributed to acquisition activity and increased investments in our fleet, whereas the increase in landfill amortization expense can be attributed to increased landfill volumes and the volume mix at our landfills.

Expense from Acquisition Activities and Other Items

In the fiscal years 2022 and 2021, we recorded charges of \$4.6 million and \$5.3 million, respectively, comprised primarily of legal, consulting and other similar costs associated with due diligence and the acquisition and integration of acquired businesses or select development projects. See Note 5, *Business Combinations*, to our consolidated financial statements included under Item 8. "Financial Statements and Supplementary Data" of this Annual Report on Form 10-K for disclosure regarding acquisition activity.

Environmental Remediation Charge

In the fiscal year 2022, we recorded an environmental remediation charge of \$0.8 million associated with the investigation of potential remediation at an inactive waste disposal site that adjoins one of our landfills. In the fiscal year 2021, we recorded an environmental remediation charge of \$0.9 million associated with a settlement agreement to conduct restoration of a stream bed on lands adjoining our North Country Environmental Services landfill located in Bethlehem, New Hampshire. See Note 13, *Commitments and Contingencies*, to our consolidated financial statements included under Item 8. "Financial Statements and Supplementary Data" of this Annual Report on Form 10-K for further disclosure over environmental remediation liabilities.

Southbridge Landfill Closure Charge, Net

In the fiscal year ended December 31, 2017, we initiated the plan to cease operations of our landfill located in Southbridge, Massachusetts ("Southbridge Landfill") and later closed it in November 2018 when Southbridge Landfill reached its final capacity. Accordingly, in fiscal years 2022 and 2021, we recorded charges associated with the closure of our Southbridge Landfill (in millions) as follows:

	Fiscal Year Ended December 31,	
	2022	2021
Legal and transaction costs (1)	\$ 0.7	\$ 0.9
Contract settlement charge (2)	—	0.6
Landfill closure project charge (credit) (3)	0.7	(1.0)
Southbridge Landfill closure charge, net	<u>\$ 1.4</u>	<u>\$ 0.5</u>

(1) We incurred legal costs as well as other transaction costs associated with various matters as part of the Southbridge Landfill closure.

- (2) We updated the cost estimates associated with a contract settlement charge associated with the Southbridge Landfill closure and the remaining future obligations due to the Town of Southbridge under the landfill operating agreement with the Town of Southbridge.
- (3) We recorded a landfill closure project (credit) charge associated with revised costs under the closure plan at Southbridge Landfill. See Note 10, *Final Capping, Closure and Post-Closure Costs*, to our consolidated financial statements included under Item 8. "Financial Statements and Supplementary Data" of this Annual Report on Form 10-K for disclosure regarding our landfill final capping, closure and post-closure costs.

Other expenses

Interest Expense, net

Our interest expense, net increased \$2.1 million in fiscal year 2022 due primarily to rising interest rates and higher average debt balances associated with the issuance in June 2022 of \$35.0 million aggregate principal amount of Vermont Economic Development Authority Solid Waste Disposal Long-Term Revenue Bonds Series 2022A-1 ("Vermont Bonds 2022A-1").

Provision for Income Taxes

Our provision for income taxes was \$21.9 million in fiscal year 2022 and \$16.9 million in fiscal year 2021. For fiscal year 2022, the provision for income taxes includes \$5.4 million of current income taxes and \$16.5 million of deferred income taxes. The provision for income taxes in fiscal year 2021 includes \$1.8 million of current income taxes and \$15.1 million of deferred income taxes. The effective rate for the fiscal year 2022 is 29% and is computed based on the statutory rate of 21% adjusted primarily for state taxes and nondeductible officer compensation.

On December 22, 2017, the Tax Cuts and Jobs Act (the "TCJA") was enacted. The TCJA significantly changed U.S. corporate income tax laws by, among other things, changing carryforward rules for net operating losses. Under the Internal Revenue Code, as amended by the TCJA, federal net operating loss carryforwards generated before the 2018 tax year continue to be carried forward for 20 years and are able to fully offset taxable income ("pre-2018 net operating losses"). Federal net operating losses generated following the 2017 tax year are carried forward indefinitely, but generally may only offset up to 80% of taxable income earned in a tax year ("post-2017 net operating losses").

We carried \$59.8 million of pre-2018 net operating losses and \$46.5 million post-2017 net operating losses into the 2022 tax year. We expect to fully offset projected 2022 federal taxable income with pre-2018 net operating losses. We project \$5.4 million of pre-2018 net operating losses and \$46.5 million of post-2017 net operating losses to be carried forward to the 2023 tax year.

In addition, the TCJA added limitations on the deductibility of interest expense that become more restrictive beginning in tax year 2022 and potentially could limit the deductibility of some of our interest expense. Any interest expense limited may be carried forward indefinitely and utilized in later years subject to said interest limitation.

Segment Reporting

We report selected information about our reportable operating segments in a manner consistent with that used for internal management reporting. We classify our solid waste operations on a geographic basis through regional operating segments, our Western and Eastern regions. Revenues associated with our solid waste operations are derived mainly from solid waste collection and disposal services, including landfill, transfer station and transportation, landfill gas-to-energy, and processing services in the northeastern United States. Our Resource Solutions operating segment leverages our core competencies in materials processing, industrial recycling, organics and resource management service offerings to deliver a comprehensive solution for our larger commercial, municipal, institutional and industrial customers that have more diverse waste and recycling needs. Revenues associated with our Resource Solutions operations are derived from two lines-of-service: processing services and our Customer Solutions business. Revenues from processing services are derived from customers in the form of processing fees, tipping fees, commodity sales, and organic material sales. Revenues from our Customer Solutions business are derived from brokerage services and overall resource management services providing a wide range of environmental services and resource management solutions to large and complex organizations, as well as traditional collection, disposal and recycling services provided to large account multi-site customers. Legal, tax, information technology, human resources, certain finance and accounting and other administrative functions are included in our Corporate Entities segment, which is not a reportable operating segment. Corporate Entities results reflect those costs not allocated to our reportable operating segments.

A summary of revenues by reportable operating segment (in millions) follows:

	Fiscal Year Ended December 31,		\$ Change
	2022	2021	
Eastern	\$ 340.0	\$ 264.6	\$ 75.4
Western	445.2	389.5	55.7
Resource Solutions	299.9	235.1	64.8
Total	<u>\$ 1,085.1</u>	<u>\$ 889.2</u>	<u>\$ 195.9</u>

Eastern Region

The following table provides details associated with the period-to-period change in revenues (dollars in millions and as percentage growth of solid waste revenues) attributable to services provided:

	Period-to-Period Change For Fiscal Year 2022 vs Fiscal Year 2021	
	Amount	% Growth
Price	\$ 18.7	7.1 %
Volume	8.0	3.0 %
Surcharges and other fees	14.1	5.3 %
Commodity price and volume	(0.1)	— %
Acquisitions	34.7	13.1 %
Solid waste revenues	<u>\$ 75.4</u>	<u>28.5 %</u>

Price.

The price change component in fiscal year 2022 solid waste revenues growth from the prior year is a result of the following:

- \$13.6 million from favorable collection pricing; and
- \$5.1 million from favorable disposal pricing related to transfer stations and landfills.

Volume.

The volume change component in fiscal year 2022 solid waste revenues growth from the prior year is a result of the following:

- \$4.9 million from higher disposal volumes related to transfer stations, landfills and transportation services;
- \$2.9 million from higher collection volumes as a result of organic business growth; and
- \$0.2 million from higher processing volumes.

Surcharges and other fees.

The surcharges and other fees change component in fiscal year 2022 solid waste revenues growth from the prior year is primarily the result of higher E&E Fees, and to a lesser extent, higher SRA Fees. Higher E&E Fees associated with our fuel cost recovery program were a result of higher diesel fuel prices and a higher overall customer participation rate. Higher SRA Fees were a result of lower recycled commodity prices and a higher overall customer participation rate. See Item 7A. "Quantitative and Qualitative Disclosures about Market Risk" of this Annual Report on Form 10-K for additional information regarding our E&E Fee and SRA Fee.

Acquisitions.

The acquisitions change component in fiscal year 2022 solid waste revenues growth is a result of increased acquisition activity in line with our growth strategy, including the timing and acquisition of two businesses in the fiscal year 2022 and five businesses in fiscal year 2021.

Western Region

The following table provides details associated with the period-to-period change in revenues (dollars in millions and as percentage growth of solid waste revenues) attributable to services provided:

	Period-to-Period Change For Fiscal Year 2022 vs Fiscal Year 2021	
	Amount	% Growth
Price	\$ 23.0	5.9 %
Volume	(2.9)	(0.7)%
Surcharges and other fees	18.4	4.7 %
Commodity price and volume	2.4	0.6 %
Acquisitions	14.8	3.8 %
Solid waste revenues	55.7	14.3 %

Price.

The price change component in fiscal year 2022 solid waste revenues growth from the prior year is a result of the following:

- \$17.6 million from favorable collection pricing; and
- \$5.4 million from favorable disposal pricing related to landfills, transfer stations and, to a lesser extent, transportation services.

Volume.

The volume change component in fiscal year 2022 solid waste revenues growth from the prior year is a result of the following:

- \$(4.4) million from lower collection volumes associated with higher customer churn due to higher pricing, implementation of the E&E Fee on additional customers and customer deselection; partially offset by
- \$1.5 million from higher disposal volumes related to transfer stations, transportation, and landfills.

Surcharges and other fees.

The surcharges and other fees change component in fiscal year 2022 solid waste revenues growth from the prior year is primarily the result of higher E&E Fees and, to a lesser extent, higher SRA Fees. Higher E&E Fees associated with our fuel cost recovery program were a result of higher diesel fuel prices and a higher overall customer participation rate. Higher SRA Fees were a result of lower recycled commodity prices and a higher overall customer participation rate. See Item 7A. "Quantitative and Qualitative Disclosures about Market Risk" of this Annual Report on Form 10-K for additional information regarding our E&E Fee and SRA Fee.

Commodity price and volume.

The commodity price and volume change component in fiscal year 2022 solid waste revenues growth from the prior year is primarily due to favorable energy pricing.

Acquisitions.

The acquisitions change component in fiscal year 2022 solid waste revenues growth is a result of increased acquisition activity in line with our growth strategy, including the timing and acquisition of ten businesses in fiscal year 2022 and five businesses in fiscal year 2021.

Operating Income (Loss)

A summary of operating income (loss) by operating segments (in millions) follows:

	Fiscal Year Ended December 31,		\$ Change
	2022	2021	
Eastern	\$ 16.6	\$ 12.9	\$ 3.7
Western	65.5	49.0	16.5
Resource Solutions	15.9	17.6	(1.7)
Corporate Entities	(2.6)	(1.8)	(0.8)
Total	\$ 95.4	\$ 77.7	\$ 17.7

Eastern Region

Eastern region operating income increased \$3.7 million in fiscal year 2022 from the prior year. Excluding the impact of the Southbridge Landfill closure charge, environmental remediation charge and the expense from acquisition activities, our operating performance in fiscal year 2022 improved as a result of revenue growth, inclusive of inter-company revenues, more than offsetting the following cost impacts discussed below.

Cost of operations:

Cost of operations increased \$68.9 million in fiscal year 2022 from the prior year as a result of the following:

- Direct costs increased in aggregate dollars due primarily to higher hauling and third-party transportation and disposal costs on (i) higher solid waste volumes driven by acquisition-related growth and, to a lesser extent, organic business growth, (ii) higher fuel surcharges from third party haulers due to higher diesel fuel prices and (iii) higher third-party disposal rates due to inflationary pressures;
- Direct labor costs increased in aggregate dollars due primarily to acquisition-related and, to a lesser extent, organic business growth, and wage inflation;
- Fuel costs increased in aggregate dollars due primarily to higher fuel prices and higher volumes driven by acquisition-related and, to a lesser extent, organic business growth. See Item 7A. "Quantitative and Qualitative Disclosures about Market Risk" of this Annual Report on Form 10-K for additional information regarding our fuel costs;
- Maintenance and repair costs increased in aggregate dollars due primarily to higher fleet and container maintenance costs associated with acquisition-related growth and inflationary pressures;
- Direct operational costs increased in aggregate dollars due to increased vehicle insurance costs and inflationary pressures; and
- Other operational costs increased in aggregate dollars due primarily to higher facility costs driven by acquisition-related growth and inflationary pressures.

General and administration:

General and administration expense increased \$7.7 million in fiscal year 2022 from the prior year due primarily to (i) acquisition-related growth, (ii) wage inflation, (iii) higher accrued incentive compensation associated with an increased headcount, (iv) an increase in general overhead costs associated with business growth and inflationary pressures and (v) a higher allocation of shared overhead costs.

Depreciation and amortization:

Depreciation and amortization expense increased \$14.1 million in fiscal year 2022 from the prior year due to acquisition-related growth, increased investment in our fleet, and higher landfill amortization expense due to higher landfill volumes and the volume mix at our landfills.

Western Region

Western region operating income increased \$16.5 million in fiscal year 2022 from the prior year. Excluding the impact of the environmental remediation charge and expense from acquisition activities, our operating performance in fiscal year 2022 improved as a result of revenue growth, inclusive of inter-company revenues, more than offsetting the following cost impacts discussed below.

Cost of operations:

Cost of operations increased \$50.8 million in fiscal year 2022 from the prior year as a result of the following:

- Direct costs increased in aggregate dollars due primarily to higher hauling and third-party transportation and disposal costs on (i) higher solid waste volumes associated with acquisition-related growth, partially offset by lower core operations collection volumes, (ii) higher fuel surcharges from third party haulers due to higher diesel fuel prices and (iii) higher third-party disposal rates due to inflationary pressures;
- Fuel costs increased in aggregate dollars due to higher fuel prices and higher volumes driven by acquisition-related growth. See Item 7A. "Quantitative and Qualitative Disclosures about Market Risk" of this Annual Report on Form 10-K for additional information regarding our fuel costs;
- Maintenance and repair costs increased in aggregate dollars due primarily to higher fleet maintenance costs associated with acquisition-related growth and inflationary pressures;
- Direct labor costs increased in aggregate dollars due primarily to acquisition-related growth and wage inflation;
- Direct operational costs increased in aggregate dollars due to (i) higher landfill operating costs from severe winter weather earlier in the year and construction delays compounded with higher landfill volumes, (ii) higher vehicle insurance costs and (iii) inflationary pressures; partially offset by lower host community and royalty fees; and
- Other operational costs increased in aggregate dollars due primarily to higher facility costs driven by acquisition-related growth and inflationary pressures.

General and administration:

General and administration expense increased \$1.2 million in fiscal year 2022 from the prior year due to increased overhead costs associated with (i) acquisition-related growth, (ii) wage inflation, (iii) higher accrued incentive compensation associated with an increased headcount and (iv) an increase in general overhead costs associated with business growth and inflationary pressures; partially offset by a lower allocation of shared overhead costs.

Depreciation and amortization:

Depreciation and amortization expense increased \$3.1 million in fiscal year 2022 from the prior year due primarily to acquisition-related growth and increased investments in our fleet; partially offset by lower landfill amortization due to the volume mix at our landfills.

Resource Solutions

Operating income decreased \$(1.7) million in fiscal year 2022 from the prior year. Excluding the impact of the expense from acquisition activities, our operating performance in fiscal year 2022 was driven by revenue growth, inclusive of inter-company revenues, more than offset by the following cost impacts discussed below.

Cost of operations:

Cost of operations increased \$59.7 million in fiscal year 2022 from the prior year as a result of the following:

- Direct costs increased in aggregate dollars due primarily to (i) higher hauling and third-party transportation costs on higher volumes in our Customer Solutions business, (ii) higher fuel surcharges from third party haulers due to higher diesel fuel prices, (iii) inflationary pressures, and (iv) higher purchased material costs due to acquisition-related growth, partially offset by lower commodity prices;
- Other operational costs increased in aggregate dollars due primarily to higher facility costs driven by acquisition-related growth and inflationary pressures;
- Direct labor costs increased in aggregate dollars due primarily to acquisition-related and organic growth in our Customer Solutions business and wage inflation;
- Maintenance and repair costs increased in aggregate dollars due primarily to higher fleet maintenance costs associated with acquisition-related and organic growth in our Customer Solutions business and inflationary pressures;
- Direct operational costs increased in aggregate dollars due primarily to acquisition-related growth and inflationary pressures; and
- Fuel costs increased in aggregate dollars due to higher fuel prices and higher volumes driven by acquisition-related and organic growth in our Customer Solutions business. See Item 7A. "Quantitative and Qualitative Disclosures about Market Risk" of this Annual Report on Form 10-K for additional information regarding our fuel costs.

General and administration:

General and administration increased \$5.3 million in fiscal year 2022 due primarily to (i) acquisition-related growth, (ii) wage inflation, (iii) higher accrued incentive compensation associated with an increased headcount, (iv) an increase in general overhead costs associated with business growth and inflationary pressures, and (v) a higher allocation of shared overhead costs.

Depreciation and amortization

Depreciation and amortization expense increased \$5.0 million in fiscal year 2022 from the prior year due to acquisition-related growth.

Liquidity and Capital Resources

We continually monitor our actual and forecasted cash flows, our liquidity, and our capital requirements in order to properly manage our liquidity needs as we move forward based on the capital intensive nature of our business and our growth acquisition strategy. We have \$266.1 million of undrawn capacity from our \$300.0 million revolving credit facility ("Revolving Credit Facility") as of December 31, 2022 to help meet our short-term and long-term liquidity needs. We expect existing cash and cash equivalents combined with cash flows from operations and financing activities to continue to be sufficient to fund our operating activities and cash commitments for investing and financing activities for at least the next 12 months and thereafter for the foreseeable future. Our known current- and long-term uses of cash include, among other possible demands: (1) capital expenditures and leases, (2) acquisitions, (3) repayments to service debt and other long-term obligations and (4) payments for final capping, closure and post-closure asset retirement obligations and environmental remediation liabilities.

A summary of cash and cash equivalents, restricted assets and debt balances, excluding any debt issuance costs, (in millions) follows:

	December 31,		\$ Change
	2022	2021	
Cash and cash equivalents	\$ 71.2	\$ 33.8	\$ 37.4
Current assets, excluding cash and cash equivalents	\$ 136.3	\$ 112.7	\$ 23.6
Restricted assets	\$ 1.9	\$ 2.1	\$ (0.2)
Total current liabilities:			
Current liabilities, excluding current maturities of debt	\$ 168.6	\$ 142.3	\$ 26.3
Current maturities of debt	9.0	9.9	(0.9)
Total current liabilities	\$ 177.6	\$ 152.2	\$ 25.4
Debt, less current portion	\$ 594.5	\$ 552.7	\$ 41.8

Current assets, excluding cash and cash equivalents, increased \$23.6 million and current liabilities increased \$25.4 million in fiscal year 2022 driven primarily by business and revenue growth, resulting in a \$(1.8) million decrease in working capital, net (defined as current assets, excluding cash and cash equivalents, minus current liabilities) from \$(39.5) million as of December 31, 2021 to \$(41.3) million as of December 31, 2022. We strive to maintain a negative working capital cycle driven by shorter days sales outstanding as compared to days payable outstanding in an effort to collect money at a faster rate than paying bills to facilitate business growth.

Summary of Cash Flow Activity

Cash and cash equivalents increased \$37.4 million in fiscal year 2022. A summary of cash flows (in millions) follows:

	Fiscal Year Ended December 31,		\$ Change
	2022	2021	
Net cash provided by operating activities	\$ 217.3	\$ 182.7	\$ 34.6
Net cash used in investing activities	\$ (206.9)	\$ (293.2)	\$ 86.3
Net cash provided by (used in) financing activities	\$ 26.9	\$ (10.1)	\$ 37.0

Cash flows from operating activities.

A summary of operating cash flows (in millions) follows:

	Fiscal Year Ended December 31,	
	2022	2021
Net income	\$ 53.1	\$ 41.1
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	126.4	103.6
Interest accretion on landfill and environmental remediation liabilities	8.0	7.3
Amortization of debt issuance costs on long-term debt	1.9	2.3
Stock-based compensation	8.2	11.6
Operating lease right-of-use assets expense	13.8	13.8
Disposition of assets, other items and charges, net	0.7	1.0
Deferred income taxes	16.5	15.1
	228.6	195.8
Changes in assets and liabilities, net	(11.3)	(13.1)
Net cash provided by operating activities	\$ 217.3	\$ 182.7

Net cash provided by operating activities increased \$34.6 million in fiscal year 2022 as compared to fiscal year 2021. This was the result of improved operational performance combined with the favorable cash flow impact associated with the changes in our assets and liabilities, net of effects of acquisitions and divestitures. For discussion of our improved operational performance in fiscal year 2022 as compared to fiscal year 2021, see "Results of Operations" included in this Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations" of this Annual Report on Form 10-K. The favorable cash flow impact associated with the changes in our assets and liabilities, net of effects of acquisitions and divestitures, which are affected by both cost changes and the timing of payments, in fiscal year 2022 as compared to fiscal year 2021 was due primarily to the following:

- a \$8.9 million favorable impact to operating cash flows associated with the change in accrued expenses, contract liabilities and other liabilities on higher accrued expenses and lower final capping, closure and post closure payments; partially offset by
- a \$(2.8) million unfavorable impact to operating cash flows associated with the change in accounts payable on a larger increase in prior years days payable outstanding as compared to a fiscal year 2022, partially offset by increased activity, primarily on acquisitions, and differences in the timing of payments; and
- a \$(4.7) million unfavorable impact to operating cash flows associated with the change in prepaid expenses, inventories and other assets on higher parts inventory and other non-current assets.

Cash flows from investing activities.

A summary of investing cash flows (in millions) follows:

	Fiscal Year Ended December 31,	
	2022	2021
Acquisitions, net of cash acquired	\$ (78.2)	\$ (170.7)
Additions to property, plant and equipment	(130.9)	(123.3)
Proceeds from sale of cost method investment	1.6	—
Proceeds from sale of property and equipment	0.6	0.8
Net cash used in investing activities	<u>\$ (206.9)</u>	<u>\$ (293.2)</u>

A summary of the most significant items affecting the change in our investing cash flows follows:

Acquisitions, net of cash acquired. In fiscal year 2022, we acquired fourteen businesses for total consideration of \$82.7 million, including \$76.6 million in cash and paid \$1.6 million in holdback payments on businesses previously acquired, as compared to fiscal year 2021, during which we acquired ten businesses for total consideration of \$171.7 million, including \$166.5 million in cash and \$1.3 million in cash held in escrow accounts as holdbacks to sellers, and paid \$2.9 million in holdback payments on businesses previously acquired.

Capital expenditures. Capital expenditures were \$7.6 million higher in fiscal year 2022 as compared to fiscal year 2021 primarily due to higher capital spend associated with landfill development, investments in newly acquired operations to drive synergies, the retrofitting of a single-stream material recovery facility and inflationary pressures, partially offset by the completion of construction and development of phase VI at our Subtitle D landfill in Coventry, Vermont in fiscal year 2021.

Proceeds from sale of cost method investment associated with the sale of our minority ownership interest in a subsidiary of Vanguard Renewables in fiscal year 2022.

Cash flows from financing activities.

A summary of financing cash flows (in millions) follows:

	Fiscal Year Ended December 31,	
	2022	2021
Proceeds from debt borrowings	\$ 88.2	\$ 3.7
Principal payments on debt	(59.3)	(10.3)
Payments of debt issuance costs	(1.2)	(3.7)
Payments of contingent consideration	(1.0)	—
Proceeds from the exercise of share-based awards	0.2	0.2
Net cash provided by (used in) financing activities	<u>\$ 26.9</u>	<u>\$ (10.1)</u>

A summary of the most significant items affecting the change in our financing cash flows follows:

Debt activity. Net cash associated with debt activity increased \$35.5 million in fiscal year 2022 compared to fiscal year 2021. The increase in financing cash flows for fiscal year 2022 is due primarily to the issuance of \$35.0 million aggregate principal amount of Vermont Bonds 2022A-1 in June 2022.

Payments of debt issuance costs. We paid \$1.2 million of debt issuance costs in fiscal year 2022 related to the issuance of Vermont Bonds 2022A-1. We paid \$3.7 million of debt issuance costs in fiscal year 2021 related to the refinancing of our credit facility.

Payment of contingent consideration. We paid \$1.0 million of contingent consideration in fiscal year 2022 associated with an acquisition based on the completion of a permit expansion application.

Outstanding Long-Term Debt

Credit Facility

As of December 31, 2022, we are party to an amended and restated credit agreement ("Credit Agreement"), which provides for a \$350.0 million aggregate principal amount term loan A facility ("Term Loan Facility") and a \$300.0 million Revolving Credit Facility (together with the Term Loan Facility, the "Credit Facility"), with a \$75.0 million sublimit for letters of credit. We have the right to request, at our discretion, an increase in the amount of loans under the Credit Facility by an aggregate amount of \$125.0 million, subject to the terms and conditions set forth in the Credit Agreement. The Credit Facility has a 5-year term that matures in December 2026 and as of December 31, 2022 bore interest at a rate of LIBOR plus 1.125% per annum based upon us reaching a consolidated net leverage ratio of less than 2.25x. The Credit Facility is guaranteed jointly and severally, fully and unconditionally by all of our significant wholly-owned subsidiaries and secured by substantially all of our assets. As of December 31, 2022, further advances were available under the Credit Facility in the amount of \$266.1 million. The available amount is net of outstanding irrevocable letters of credit totaling \$27.9 million, and as of December 31, 2022 no amount had been drawn.

On February 9, 2023, we entered into first and second amendments to our amended and restated Credit Agreement (as amended, the "Amended and Restated Credit Agreement"). The first amendment provides, commencing in the fiscal year ending December 31, 2024, the interest rate margin applied for drawn and undrawn amounts under the Amended and Restated Credit Agreement shall be separately adjusted based on our achievement of certain thresholds and targets on two sustainability related key performance indicator metrics during the fiscal year ending December 31, 2023 ("fiscal year 2023"): i) metric tons of solid waste materials reduced, reused or recycled through our direct operations or with third-parties in collaboration with customers; and ii) our total recordable incident rate. The second amendment provides, effective for fiscal year 2023, that loans under the Amended and Restated Credit Agreement shall bear interest, at our election, at the term secured overnight financing rate, including a secured overnight financing rate adjustment of 10 basis points ("Term SOFR"), or a base rate, in each case, plus an applicable interest rate margin based on consolidated net leverage ratio, and plus or minus any sustainability rate adjustment. Unless loans are made as or converted to base rate loans, loans under the Amended and Restated Credit Agreement shall bear interest at Term SOFR, plus a margin based upon our consolidated net leverage ratio in the range of 1.125% to 2.125% per annum, plus a sustainability adjustment of up to positive or negative 4.0 basis point per annum, and a commitment fee on undrawn amounts will be charged on undrawn amounts at a rate of Term SOFR, plus a margin based upon our consolidated net leverage ratio in the range of 0.20% to 0.40% per annum, plus a sustainability adjustment of up to positive or negative 1.0 basis points per annum. We shall also pay a fronting fee for each letter of credit of 0.25% per annum. Interest under the Amended and Restated Credit Agreement shall be subject to increase by 2.00% per annum during the continuance of a payment default and may be subject to increase by 2.00% per annum during the continuance of any other event of default.

The Credit Agreement required and the Amended and Restated Credit Agreement requires us to maintain a minimum interest coverage ratio and a maximum consolidated net leverage ratio, to be measured at the end of each fiscal quarter. As of December 31, 2022, we were in compliance with all financial covenants contained in the Credit Agreement as follows (in millions):

Credit Facility Covenant	Fiscal Year Ended December 31, 2022	Covenant Requirements at December 31, 2022
Maximum consolidated net leverage ratio (1)	2.08	4.00
Minimum interest coverage ratio	11.56	3.00

- (1) The maximum consolidated net leverage ratio is calculated as consolidated funded debt, net of unencumbered cash and cash equivalents in excess of \$2.0 million and up to \$100.0 million (calculated at \$534.3 million as of December 31, 2022, or \$603.5 million of consolidated funded debt less \$69.2 million of cash and cash equivalents in excess of \$2.0 million and up to \$100.0 million as of December 31, 2022), divided by consolidated EBITDA. Consolidated EBITDA is based on operating results for the twelve months preceding the measurement date of December 31, 2022. Consolidated funded debt, net of unencumbered cash and cash equivalents in excess of \$2.0 million and up to \$100.0 million, and consolidated EBITDA as defined by the Amended and Restated Credit Agreement ("Consolidated EBITDA") are non-GAAP financial measures that should not be considered an alternative to any measure of financial performance calculated and presented in accordance with generally accepted accounting principles in the United States. A reconciliation of net cash provided by operating activities to Consolidated EBITDA is as follows (in millions):

	Twelve Months Ended December 31, 2022
Net cash provided by operating activities	\$ 217.3
Changes in assets and liabilities, net of effects of acquisitions and divestitures	11.2
Stock based compensation	(8.2)
Operating lease right-of-use assets expense	(5.1)
Disposition of assets, other items and charges, net	(0.7)
Interest expense, less amortization of debt issuance costs	21.8
Provision for income taxes, net of deferred income taxes	5.4
Adjustments as allowed by the Credit Agreement	15.4
Consolidated EBITDA	<u>\$ 257.1</u>

In addition to the financial covenants, the Credit Agreement contained and the Amended and Restated Credit Agreement contains a number of important customary affirmative and negative covenants which restrict, among other things, our ability to sell assets, incur additional debt, create liens, make investments, and pay dividends. We do not believe that these restrictions impact our ability to meet future liquidity needs. As of December 31, 2022, we were in compliance with all covenants contained in the Credit Agreement.

An event of default under any of our debt agreements could permit some of our lenders, including the lenders under the Credit Facility, to declare all amounts borrowed from them to be immediately due and payable, together with accrued and unpaid interest, or, in the case of the Credit Facility, terminate the commitment to make further credit extensions thereunder, which could, in turn, trigger cross-defaults under other debt obligations. If we were unable to repay debt to our lenders, or were otherwise in default under any provision governing our outstanding debt obligations, our secured lenders could proceed against us and against the collateral securing that debt.

Based on the seasonality of our business, operating results in the late fall, winter and early spring months are generally lower than the remainder of our fiscal year. Given the cash flow impact that this seasonality, the capital-intensive nature of our business and the timing of debt payments has on our business, we typically incur higher debt borrowings in order to meet our liquidity needs during these times. Consequently, our availability and performance against our financial covenants tighten during these times as well.

Tax-Exempt Financings and Other Debt

As of December 31, 2022, we had outstanding \$197.0 million aggregate principal amount of tax-exempt bonds, \$49.8 million aggregate principal amount of finance leases and \$0.7 million aggregate principal amount of notes payable. See Note 12, *Debt* to our consolidated financial statements included under Item 8. "*Financial Statements and Supplementary Data*" of this Annual Report on Form 10-K for disclosure regarding our debt.

Contractual Obligations

The following table sets forth a summary of our significant contractual cash obligations (in thousands) as of December 31, 2022. These obligations are reflected in our balance sheet and include obligations with scheduled maturities, as well as significant obligations pertaining to accrued environmental remediation liabilities and final capping, closure and post-closure asset retirement obligations at our landfills. Accordingly, this table is not meant to represent a forecast of our total cash expenditures for any of the periods presented.

	Less than one year	1 - 3 years	3 - 5 years	More than 5 years	Total
Debt	\$ 8,968	\$ 56,015	\$ 357,659	\$ 180,835	\$ 603,477
Interest obligations (1)	29,187	57,169	33,246	109,479	229,081
Non-cancellable operating leases	4,167	5,759	3,251	7,524	20,701
Landfill operating lease contracts	5,505	12,410	16,386	25,119	59,420
Pension plan contributions	147	294	294	1,289	2,024
Environmental remediation	782	1,587	617	4,009	6,995
Final capping, closure and post-closure	7,980	15,703	31,852	230,926	286,461
Total contractual cash obligations (2)	<u>\$ 56,736</u>	<u>\$ 148,937</u>	<u>\$ 443,305</u>	<u>\$ 559,181</u>	<u>\$ 1,208,159</u>

- (1) Based on debt balances as of December 31, 2022. Interest obligations related to variable rate debt were calculated using variable rates in effect at December 31, 2022.
- (2) Contractual cash obligations do not include accounts payable or accrued liabilities, which will be paid in the fiscal year ending December 31, 2023.

We have no contractual obligations related to unrecognized tax benefits at December 31, 2022. For further description regarding contractual obligations, see Note 8, *Leases*, Note 10, *Final Capping, Closure and Post-Closure Costs*, Note 13, *Commitments and Contingencies* and Note 17, *Income Taxes*, to our consolidated financial statements included in Item 8. "*Financial Statements and Supplementary Data*" of this Annual Report on Form 10-K.

Inflation

Inflationary increases in costs, including current inflationary pressures associated primarily with fuel, labor and certain other cost categories and capital items, have materially affected, and may continue to materially affect, our operating margins and cash flows. While rapid inflation negatively impacted operating results and margins during fiscal year 2022, we believe that our flexible pricing structures and cost recovery fees are allowing us to recover and will continue to allow us to recover certain inflationary costs from our customer base. Consistent with industry practice, most of our contracts and service agreements provide for a pass-through of certain costs to our customers, including increases in landfill tipping fees and in most cases fuel costs, intended to mitigate the impact of inflation on our operating results. We have also implemented a number of operating efficiency programs that seek to improve productivity and reduce our service costs, and our fuel cost recovery program, which is the energy component of our E&E Fee, is designed to recover escalating fuel price fluctuations above a periodically reset floor. Despite these programs, competitive factors may require us to absorb at least a portion of these cost increases. See Item 7A. "*Quantitative and Qualitative Disclosures about Market Risk*" of this Annual Report on Form 10-K for additional information regarding our fuel cost recovery program. Additionally, management's estimates associated with inflation have had, and will continue to have, an impact on our accounting for landfill and environmental remediation liabilities.

Regional Economic Conditions

Our business is primarily located in the northeastern United States. Therefore, our business, financial condition and operational results are susceptible to downturns in the general economy in this geographic region and other factors affecting the region, such as state regulations, labor availability and severe weather conditions. We are unable to forecast or determine the timing and/or the future impact of a sustained economic slowdown or other factors affecting the region.

Critical Accounting Estimates and Assumptions

Our consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States (“GAAP”) and necessarily include certain estimates and judgments made by management. On an on-going basis, management evaluates its estimates and judgments which are based on historical experience and on various other factors that are believed to be reasonable under the circumstances. The results of their evaluation form the basis for making judgments about the carrying values of assets and liabilities. However, even under optimal circumstances, estimates routinely require adjustments based on changing assumptions and circumstances, or new or better information becoming available. Accordingly, actual results may differ from these estimates under different assumptions and circumstances.

The following is a list of accounting policies that we believe are the most critical in understanding our consolidated financial position, results of operations and cash flows and that may require management to make subjective or complex judgments about matters that are inherently uncertain. Our significant accounting policies are more fully discussed in Note 3, *Summary of Significant Accounting Policies* of our consolidated financial statements included in Item 8. “*Financial Statements and Supplementary Data*” of this Annual Report on Form 10-K.

Landfill Accounting

Landfill Development Costs. We estimate the total cost to develop each of our landfill sites to its remaining permitted and expansion capacity (see landfill development costs discussed within the “*Property, Plant and Equipment*” accounting policy more fully discussed in Note 3, *Summary of Significant Accounting Policies* of our consolidated financial statements included in Item 8. “*Financial Statements and Supplementary Data*” of this Annual Report on Form 10-K). The projection of these landfill costs is dependent, in part, on future events. The remaining amortizable basis of each landfill includes costs to develop a site to its remaining permitted and expansion capacity and includes amounts previously expended and capitalized, net of accumulated airspace amortization, and projections of future purchase and development costs including capitalized interest. The interest capitalization rate is based on our weighted average interest rate incurred on borrowings outstanding during the period.

Under life-cycle accounting, all costs related to acquisition and construction of landfill sites are capitalized and charged to expense based on tonnage placed into each site. Landfill permitting, acquisition and preparation costs are amortized on the units-of-consumption method as landfill airspace is consumed. In determining the amortization rate for each of our landfills, preparation costs include the total estimated costs to complete construction of the landfills’ permitted and expansion capacity. The average amortization rate per ton for our landfills during fiscal year 2022 and 2021 was \$7.03 and \$7.03, respectively.

Final Capping, Closure and Post-Closure Costs. The cost estimates for final capping, closure and post-closure activities at landfills for which we have responsibility are estimated based on our interpretations of current requirements and proposed or anticipated regulatory changes. Our investment in final capping, closure and post-closure activities is focused on meeting these regulations, therefore, reducing emissions of air pollutants from our landfills.

We also estimate additional costs based on the amount a third-party would charge us to perform such activities even when we expect to perform these activities internally. We estimate the airspace to be consumed related to each final capping event and the timing of construction related to each final capping event and of closure and post-closure activities. Because landfill final capping, closure and post-closure obligations are measured at estimated fair value using present value techniques, changes in the estimated timing of construction of future landfill final capping and closure and post-closure activities would have an effect on these liabilities, related assets and results of operations.

Final capping activities include the installation of liners, drainage, compacted soil layers and topsoil over areas of a landfill where total airspace has been consumed and waste is no longer being received. Final capping activities occur throughout the life of the landfill. Our engineering personnel estimate the cost for each final capping event based on the acreage to be capped, along with the final capping materials and activities required. The estimates also consider when these costs would actually be paid and factor in inflation and discount rates. The engineers then quantify the landfill capacity associated with each final capping event and the costs for each event are amortized over that capacity as waste is received at the landfill.

Closure and post-closure costs represent future estimated costs related to monitoring and maintenance of a solid waste landfill after a landfill facility ceases to accept waste and closes. We estimate, based on input from our engineers, accountants, lawyers, managers and others, our future cost requirements for closure and post-closure monitoring and maintenance based on our interpretation of the technical standards of the Subtitle D regulations and the air emissions standards under the Clean Air Act of 1970, as amended, as they are being applied on a state-by-state basis. Closure and post-closure accruals for the cost of monitoring and maintenance include site inspection, groundwater monitoring, leachate management, methane gas control and recovery, and operation and maintenance costs to be incurred for a period which is generally for a term of 30 years after final closure of a landfill. In determining estimated future closure and post-closure costs, we consider costs associated with permitted and permissible airspace. See Note 10, *Final Capping, Closure and Post-Closure Costs* to our consolidated financial statements included under Item 8. “*Financial Statements and Supplementary Data*” of this Annual Report on Form 10-K for further disclosure about final capping, closure and post-closure asset retirement costs, including revisions in estimates.

Remaining Permitted Airspace. Our engineers, in consultation with third-party engineering consultants and surveyors, are responsible for determining remaining permitted airspace at our landfills. The remaining permitted airspace is determined by an annual survey, which is then used to compare the existing landfill topography to the expected final landfill topography.

Expansion Airspace. We currently include unpermitted expansion airspace in our estimate of remaining permitted and expansion airspace in certain circumstances. To be considered expansion airspace all of the following criteria must be met:

- we control the land on which the expansion is sought;
- all technical siting criteria have been met or a variance has been obtained or is reasonably expected to be obtained;
- we have not identified any legal or political impediments which we believe will not be resolved in our favor;
- we are actively working on obtaining any necessary permits and we expect that all required permits will be received; and
- senior management has approved the project based on a review of the engineering design and determination that the financial return profile meets our investment criteria.

For unpermitted airspace to be included in our estimate of remaining permitted and expansion airspace, the expansion effort must meet all of the criteria listed above. These criteria are evaluated annually by our engineers, accountants, lawyers, managers and others to identify potential obstacles to obtaining the permits. Once the remaining permitted and expansion airspace is determined in cubic yards, an airspace utilization factor (“AUF”) is established to calculate the remaining permitted and expansion capacity in tons. The AUF is established using a process that considers the measured density obtained from annual surveys. When we include the expansion airspace in our calculation of remaining permitted and expansion airspace, we include the projected costs for development, as well as the projected asset retirement costs related to final capping, closure and post-closure of the expansion airspace in the amortization basis of the landfill. See Part I. Item 1. “*Business*” of this Annual Report on Form 10-K for more disclosure about permitted and permissible capacity at our landfills.

After determining the costs and the remaining permitted and expansion capacity at each of our landfills, we determine the per ton rates that will be expensed as waste is received and deposited at each of our landfills by dividing the costs by the corresponding number of tons. We calculate per ton amortization rates for assets associated with each final capping event, for assets related to closure and post-closure activities, and for all other costs capitalized or to be capitalized in the future for each landfill. These rates per ton are updated annually, or more frequently, as significant facts change.

It is possible that actual results, including the amount of costs incurred, the timing of final capping, closure and post-closure activities, our airspace utilization or the success of our expansion efforts could ultimately turn out to be significantly different from our estimates and assumptions. To the extent that such estimates or related assumptions prove to be significantly different than actual results, lower profitability may be experienced due to higher amortization rates, higher final capping, closure or post-closure rates, or higher expenses. Higher profitability may result if the opposite occurs. Most significantly, if it is determined that the expansion capacity should no longer be considered in calculating the recoverability of the landfill asset, we may be required to recognize an asset impairment. If it is determined that the likelihood of receiving an expansion permit has become remote, the capitalized costs related to the expansion effort are expensed immediately.

Environmental Remediation Liabilities

We have recorded environmental remediation liabilities representing our estimate of the most likely outcome of the matters for which we have determined that a liability is probable. These liabilities include potentially responsible party investigations, settlements, certain legal and consultant fees, as well as costs directly associated with site investigation and clean up, such as materials and incremental internal costs directly related to the remedy. We provide for expenses associated with environmental remediation obligations when such amounts are probable and can be reasonably estimated. We estimate costs required to remediate sites where it is probable that a liability has been incurred based on site-specific facts and circumstances. Estimates of the cost for the likely remedy are developed using third-party environmental engineers or other service providers. Where we believe that both the amount of a particular environmental remediation liability and timing of payments are reliably determinable, we inflate the cost in current dollars until the expected time of payment and discount the cost to present value. See Note 13, *Commitments and Contingencies* to our consolidated financial statements included under Item 8. “*Financial Statements and Supplementary Data*” of this Annual Report on Form 10-K for further disclosure about environmental remediation liabilities, including revisions in estimates.

Accounts Receivable, Net of Allowance for Credit Losses

Accounts receivable represent receivables from customers for collection, transfer, recycling, disposal and other services. Our accounts receivable are recorded when billed or when related revenue is earned, if earlier, and represent claims against third-parties that will be settled in cash. The carrying value of our accounts receivable, net of allowance for credit losses represents its estimated net realizable value. Estimates are used in determining our allowance for credit losses based on, among other things, our historical loss trends, the age of outstanding accounts receivable, and current and expected economic conditions. Additions charged to expense in fiscal year 2022 consider the current economic conditions and the potential impact to our customers' ability to pay for services that we have provided. Our reserve is evaluated and revised on a monthly basis. Past due accounts receivable are written off when deemed to be uncollectible. See Note 6, *Accounts Receivable, Net of Allowance for Credit Losses* to our consolidated financial statements under Item 8. "*Financial Statements and Supplementary Data*" of this Annual Report on Form 10-K for further disclosure about changes to the allowance for credit losses.

Goodwill and Other Intangibles

In testing for goodwill impairment, we estimate the fair value of each reporting unit, which we have determined to be our geographic operating segments and our Resource Solutions operating segment, and compare the fair value with the carrying value of the net assets of each reporting unit. If the fair value is less than its carrying value, then we would recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value, noting that the amount is not to exceed the total amount of goodwill allocated to that reporting unit.

To determine the fair value of each of our reporting units as a whole, we use discounted cash flow analyses, which require significant assumptions and estimates about the future operations of each reporting unit. Significant judgments inherent in this analysis include the determination of appropriate discount rates, the amount and timing of expected future cash flows and growth rates. The cash flows employed in our discounted cash flow analyses are based on financial forecasts developed internally by management. Our discount rate assumptions are based on an assessment of our risk adjusted discount rate, applicable for each reporting unit. In assessing the reasonableness of our determined fair values of our reporting units, we evaluate our results against our current market capitalization.

We elected to perform a quantitative analysis as part of our annual goodwill impairment test for fiscal year 2022. As of October 1, 2022, our Eastern, Western, and Resource Solutions reporting units indicated that the fair value of each reporting unit exceeded its carrying amount, including goodwill. Furthermore, in each case the fair value of our Eastern, Western, and Resource Solutions reporting units exceeded its carrying value by in excess of 67.0%. We incurred no impairment of goodwill as a result of our annual goodwill impairment tests in fiscal years 2022 or 2021. However, there can be no assurance that goodwill will not be impaired at any time in the future.

Intangible assets consist primarily of covenants not-to-compete, customer relationships and trade names. Intangible assets are recorded at fair value and are amortized based on the economic benefit provided or using the sum of years digits or straight-line methods over their estimated useful lives. Covenants not-to-compete, customer relationships, and trade names are typically amortized over a term of no more than 10 years. See Note 5, *Business Combinations* and Note 9, *Goodwill and Intangible Assets* to our consolidated financial statements included under Item 8. "*Financial Statements and Supplementary Data*" of this Annual Report on Form 10-K for further disclosure.

Recovery of Long-Lived Assets

We continually assess whether events or changes in circumstances have occurred that may warrant revision of the estimated useful lives of our long-lived assets (other than goodwill) or whether the remaining balances of those assets should be evaluated for possible impairment. Long-lived assets include, for example, capitalized landfill costs, other property and equipment, identifiable intangible assets, and operating lease right-of-use assets. Events or changes in circumstances that may indicate that an asset may be impaired include the following:

- a significant decrease in the market price of an asset or asset group;
- a significant adverse change in the extent or manner in which an asset or asset group is being used or in its physical condition;
- a significant adverse change in legal factors or in the business climate that could affect the value of an asset or asset group, including an adverse action or assessment by a regulator;
- an accumulation of costs significantly in excess of the amount originally expected for the acquisition or construction of a long-lived asset;
- a current period operating or cash flow loss combined with a history of operating or cash flow losses or a projection or forecast that demonstrates continuing losses associated with the use of a long-lived asset or asset group;

- a current expectation that, more likely than not, a long-lived asset or asset group will be sold or otherwise disposed of significantly before the end of its previously estimated useful life; or
- an impairment of goodwill at a reporting unit.

There are certain indicators listed above that require significant judgment and understanding of the waste industry when applied to landfill development or expansion. For example, a regulator may initially deny a landfill expansion permit application although the expansion permit is ultimately granted. In addition, management may periodically divert waste from one landfill to another to conserve remaining permitted landfill airspace. Therefore, certain events could occur in the ordinary course of business and not necessarily be considered indicators of impairment due to the unique nature of the waste industry.

If an impairment indicator occurs, we perform a test of recoverability by comparing the carrying value of the asset or asset group to its undiscounted expected future cash flows. We group our long-lived assets for this purpose at the lowest level for which identifiable cash flows are primarily independent of the cash flows of other assets or asset groups. If the carrying values are in excess of undiscounted expected future cash flows, we measure any impairment by comparing the fair value of the asset or asset group to its carrying value.

To determine fair value, we use discounted cash flow analyses and estimates about the future cash flows of the asset or asset group. This analysis includes a determination of an appropriate discount rate, the amount and timing of expected future cash flows and growth rates. The cash flows employed in our discounted cash flow analyses are typically based on financial forecasts developed internally by management. The discount rate used is commensurate with the risks involved. We may also rely on third-party valuations and or information available regarding the market value for similar assets.

If the fair value of an asset or asset group is determined to be less than the carrying amount of the asset or asset group, impairment in the amount of the difference is recorded in the period that the impairment occurs. Estimating future cash flows requires significant judgment and projections may vary from the cash flows eventually realized. We incurred no impairment of long-lived assets in fiscal years 2022 or 2021. However, there can be no assurance that long-lived assets will not be impaired at any time in the future.

Self-Insurance Liabilities and Related Costs

We are self-insured for vehicles and workers' compensation with reinsurance coverage limiting our maximum exposure. In fiscal year 2022, our maximum exposure per individual event under the workers' compensation plan was \$1.25 million. In fiscal year 2022, our minimum and maximum exposure per individual event under the automobile plan were up to \$1.50 million and \$3.65 million, respectively. The liability for unpaid claims and associated expenses, including incurred but not reported losses, is determined by management with the assistance of a third-party actuary and reflected in our consolidated balance sheets as an accrued liability. We use a third-party to track and evaluate actual claims experience for consistency with the data used in the annual actuarial valuation. The actuarial-determined liability is calculated based on historical data, which considers both the frequency and settlement amount of claims. Our estimated accruals for these liabilities could be significantly different than our ultimate obligations if variables such as the frequency or severity of future events differ significantly from our assumptions. Our self-insurance reserves totaled \$22.2 million and \$19.8 million as of December 31, 2022 and December 31, 2021, respectively. Our estimated accruals for these liabilities could be significantly different than our ultimate obligations if variables such as the frequency or severity of future events differ significantly from our assumptions.

Income Taxes

We use estimates to determine our provision for income taxes and related assets and liabilities and any valuation allowance recorded against our net deferred tax assets. Valuation allowances have been established for the possibility that tax benefits may not be realized for certain deferred tax assets. Deferred income taxes are recognized based on the expected future tax consequences of differences between the financial statement basis and the tax basis of assets and liabilities, calculated using currently enacted tax rates. We record net deferred tax assets to the extent we believe these assets will more likely than not be realized. In making this determination, we consider all available positive and negative evidence, including scheduled reversals of deferred tax liabilities, projected future taxable income, tax planning strategies and recent financial operations. In the event we determine that we would be able to realize our deferred income tax assets in the future in excess of their net recorded amount, we will make an adjustment to the valuation allowance which would reduce the provision for income taxes.

We account for income tax uncertainties according to guidance on the recognition, derecognition and measurement of potential tax benefits associated with tax positions. We recognize interest and penalties relating to income tax matters as a component of income tax expense.

See Note 17, *Income Taxes* to our consolidated financial statements included under Item 8, "*Financial Statements and Supplementary Data*" of this Annual Report on Form 10-K for further disclosure, including the effect of the valuation allowance release.

Contingent Liabilities

We are subject to various legal proceedings, claims and regulatory matters, the outcomes of which are subject to significant uncertainty. We determine whether to disclose or accrue for loss contingencies based on an assessment of whether the risk of loss is remote, reasonably possible or probable, and whether it can be reasonably estimated. We analyze our litigation and regulatory matters based on available information to assess the potential liabilities. Management's assessment is developed based on an analysis of possible outcomes under various strategies. We accrue for loss contingencies when such amounts are probable and reasonably estimable. If a contingent liability is only reasonably possible, we will disclose the potential range of the loss, if estimable. We record losses related to contingencies in cost of operations or general and administration expenses, depending on the nature of the underlying transaction leading to the loss contingency. See Note 13, *Commitments and Contingencies* for disclosure about loss contingencies, as applicable. Contingent liabilities accounted for under purchase accounting are recorded at their fair values. These fair values may be different from the values we would have otherwise recorded, had the contingent liability not been assumed as part of an acquisition of a business. See Note 5, *Business Combinations* and Note 15, *Fair Value of Financial Instruments* to our consolidated financial statements included under Item 8. "Financial Statement and Supplementary Data" of this Annual Report on Form 10-K for disclosure about contingent consideration accounted for under purchase accounting.

Stock-Based Compensation

All share-based compensation cost is measured at the grant date, based on the estimated fair value of the award, and is recognized as expense-in general and administration expense over the employee's requisite service period. For purposes of calculating stock-based compensation expense, forfeitures are accounted for as they occur. Our equity awards granted generally consist of stock options, restricted stock, restricted stock units and market-based performance stock units.

The fair value of each stock option grant is estimated using a Black-Scholes option-pricing model. The fair value of restricted stock and restricted stock unit grants is at a price equal to the fair market value of our Class A common stock at the date of grant. The fair value of market-based performance stock unit grants is valued using a Monte Carlo pricing model. See Note 14, *Stockholders' Equity* to our consolidated financial statements included under Item 8. "Financial Statements and Supplementary Data" of this Annual Report on Form 10-K for further disclosure.

New Accounting Standards

For a description of the new accounting standards that may affect us, see Note 2, *Accounting Changes* to our consolidated financial statements included in Item 8. "Financial Statements and Supplementary Data" of this Annual Report on Form 10-K.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

In the normal course of business we are exposed to market risks, including changes in diesel fuel prices, interest rates and certain commodity prices. We have a variety of strategies to mitigate these market risks, including those discussed below.

Fuel Price Risk

The price and supply of fuel are unpredictable and fluctuate based on events beyond our control, including among others, geopolitical developments, supply and demand for oil and gas, actions by the Organization of the Petroleum Exporting Countries and other oil and gas producers, war and unrest in oil producing countries and regional production patterns. Fuel is needed to run our fleet of trucks, equipment and other aspects of our operations, and price escalations for fuel increase our operating expenses. We have a fuel cost recovery program, which is the energy component of our E&E Fee that is designed to offset some or all of the impact of diesel fuel price increases above a periodically reset floor and contemplates a minimum customer participation level to cover changes in our fuel costs. The energy component of the E&E Fee floats on a monthly basis based upon changes in a published diesel fuel price index and is tied to a price escalation index with a look-back provision, which results in a timing lag in our ability to match the changes in the fuel cost component of the fee to diesel fuel price fluctuations during periods of rapid price changes. In certain circumstances, a substantial rise or drop in fuel costs could materially affect our revenue and costs of operations. However, a substantial rise or drop in fuel costs should not have a material impact on our results of operations. In addition, we are susceptible to increases in fuel surcharges from our vendors.

Based on our consumption levels in the last twelve months ended December 31, 2022, after considering physically settled fuel contracts we believe a \$0.50 cent per gallon change in the price of diesel fuel would change our direct fuel costs by approximately \$4.8 million per year. Offsetting these changes in direct fuel expense would be changes in the energy component of the E&E Fees charged to our customers. Based on participation rates as of December 31, 2022, we believe a \$0.50 cent per gallon change in the price of diesel fuel would change the energy component of the E&E Fee by approximately \$5.3 million per year. In addition to direct fuel costs related to our consumption levels, we are also subject to fuel surcharge expense from third party transportation providers. Other operational costs and capital expenditures may also be impacted by fuel prices.

Our fuel costs were \$48.3 million in 2022, or 4.4% of revenue, compared to \$26.9 million in 2021, or 3.0% of revenue.

Commodity Price Risk

We market a variety of materials, including fibers such as old corrugated cardboard and old newsprint, plastics, glass, ferrous and aluminum metals. We may use a number of strategies to mitigate impacts from these recycled material commodity price fluctuations including: (1) charging collection customers a floating SRA fee to reduce recycling commodity risks; (2) providing in-bound MRF customers with a revenue share or indexed materials purchases in higher commodity price markets, or charging these same customers a processing cost or tipping fee per ton in lower commodity price markets; (3) selling recycled commodities to out-bound MRF customers through floor price or fixed price agreements; or (4) entering into fixed price contracts or hedges that mitigate the variability in cash flows generated from the sales of recycled paper at floating prices. Although we have introduced these risk mitigation programs to help offset volatility in commodity prices and to offset higher labor or capital costs to meet more stringent contamination standards, we cannot provide assurance that we can use these programs with our customers in all circumstances or that they will mitigate these risks in an evolving recycling environment. We do not use financial instruments for trading purposes and are not a party to any leveraged derivatives. As of December 31, 2022, we were not party to any commodity hedging agreements.

Should recycled material commodity prices change by \$10 per ton, we estimate that our annual operating income margin would change by approximately \$0.9 million annually. Our sensitivity to changes in commodity prices is complex because each customer contract is unique relative to revenue sharing, tipping or processing fees and other arrangements. The above operating income impact may not be indicative of future operating results and actual results may vary materially.

Interest Rate Risk

Our strategy to reduce exposure to interest rate risk involves entering into interest rate derivative agreements to hedge against adverse movements in interest rates related to the variable rate portion of our long-term debt. We have designated these derivative instruments as highly effective cash flow hedges, and therefore the change in fair value is recorded in our stockholders' equity as a component of accumulated other comprehensive loss and included in interest expense at the same time as interest expense is affected by the hedged transactions. Differences paid or received over the life of the agreements are recorded as additions to or reductions of interest expense on the underlying debt and included in cash flows from operating activities.

As of December 31, 2022 and December 31, 2021, our active interest rate derivative agreements had a total notional amount of \$190.0 million and \$195.0 million, respectively. According to the terms of the agreements, we receive interest based on the 1-month LIBOR index, in some instances restricted by a 0.0% floor, and pay interest at a weighted average rate of approximately 2.20%. The agreements mature between May 2023 and June 2027.

As of December 31, 2021, we had forward starting interest rate derivative agreements with a total notional amount of \$85.0 million outstanding. As of December 31, 2022, we have a forward starting interest rate derivative agreement with a total notional amount of \$20.0 million. According to the terms of this agreement, we will receive interest based on the 1-month LIBOR index, restricted by a 0.0% floor, and will pay interest at a rate of 1.29%. The agreement matures in May 2028.

As of December 31, 2022, we have \$247.5 million of fixed rate debt in addition to the \$190.0 million fixed through our interest rate derivative agreements. We had interest rate risk relating to approximately \$166.0 million of long-term debt as of December 31, 2022. The weighted average interest rate on the variable rate portion of long-term debt was approximately 5.4% at December 31, 2022. Should the average interest rate on the variable rate portion of long-term debt change by 100 basis points, we estimate that our annual interest expense would change by up to approximately \$1.7 million.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of Casella Waste Systems, Inc.

Opinions on the Financial Statements and Internal Control Over Financial Reporting

We have audited the accompanying consolidated balance sheets of Casella Waste Systems, Inc. and subsidiaries (the Company) as of December 31, 2022 and 2021, and the related consolidated statements of operations, comprehensive income, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2022, and the related notes (collectively, the financial statements). We also have audited the Company's internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of their operations and their cash flows for each of the years in the three-year period ended December 31, 2022, in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013.

As discussed in Management's Report on Internal Control Over Financial Reporting, management has excluded from its assessment of the effectiveness of internal control over financial reporting as of December 31, 2022: Dickson's Environmental Services, Inc. (Dickson), Northstar Pulp & Paper, Co. Inc. and Northstar Disposal Corp. (collectively, Northstar), and Shanks Enterprises, Inc. (Shanks), because they were acquired by the Company during 2022 and have not yet been fully incorporated into the Company's internal controls over financial reporting. We have also excluded Dickson, Northstar, and Shanks from our report of internal controls over financial reporting as of December 31, 2022. Collectively, Dickson, Northstar, and Shanks represent total assets and revenues of approximately 3% and 3%, respectively, of the related consolidated financial statement amounts as of and for the year ended December 31, 2022.

Basis for Opinions

The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's financial statements and an opinion on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the financial statements included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included

performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective or complex judgments. The communication of the critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing separate opinions on the critical audit matter or on the accounts or disclosures to which it relates.

Landfill Accounting

As described in Note 3 of the consolidated financial statements, the Company capitalizes landfill acquisition and development costs and charges those costs to expense on a units-of-consumption method as landfill airspace is consumed. In addition, the Company accrues an asset retirement obligation for estimated capping, closure and post-closure costs related to its landfills. As described in Note 7 of the consolidated financial statements, as of December 31, 2022, the Company's landfill assets totaled \$730.9 million, and the associated amortization expense for the year ended December 31, 2022 was \$31.6 million. As described in Note 10 of the consolidated financial statements, as of December 31, 2022, the Company estimated its accrued capping, closure and post-closure costs at \$113.7 million. The landfill asset amortization and accrued capping, closure and post-closure costs are based on estimates of future cash flows, which require significant assumptions and estimates about the future operations and retirement of each landfill. Management estimates the costs and timing of expected future cash flows based on various assumptions at each individual landfill including:

- The future landfill development costs, as well as costs associated with the final capping, closure and post closure activities.
- Remaining permitted and unpermitted expansion airspace, which is estimated by Company engineers, in consultation with third-party engineers and surveyors, who utilize annual aerial surveys.
- Compaction factors, or airspace utilization factors (AUF), which are estimated using a process that considers the measured density obtained from annual aerial surveys.
- Inflation rates and the credit adjusted risk-free rate

We identified the Company's landfill asset amortization expense and accrued capping, closure and post-closure costs as a critical audit matter because of the significant assumptions and judgments made by management. Auditing management's assumptions and judgements involved a high degree of auditor judgment and increased audit effort due to the impact these assumptions have on the amounts recorded by the Company.

Our audit procedures related to landfill asset amortization expense and accrued capping, closure and post-closure costs included the following, among others:

- We obtained an understanding of the relevant controls related to landfill asset amortization expense and accrued capping, closure and post-closure costs and tested such controls for design and operating effectiveness, including those over the determination of the appropriate credit adjusted risk-free and inflation rates, compaction factors, the amount and timing of expected future cash flows, and permitted and unpermitted airspace.
- We tested internal and external data used by management in the future cost estimates for both the calculation of landfill asset amortization expense rates and capping, closure and post-closure activities, by evaluating the reasons for

significant changes in assumptions from historical trends and determined whether the change from the historical trend was appropriate and identified in the proper period.

- We confirmed the landfill topography drawings and results of aerial surveys directly with the third-party engineers. We agreed relevant data outputs from the topography drawings, such as permitted and unpermitted expansion airspace, to the relevant data inputs in management's estimates of future cash flows.
- We compared remaining permitted airspace to issued permits and evaluated management's determination of unpermitted expansion airspace through a comparison of airspace and annual aerial surveys.
- We compared the results of the compaction factors calculated by aerial surveys to the factors utilized by management in the estimates of future cash flows.
- We assessed the appropriateness of the methodology used by management in developing the inflation rate, and we tested the completeness and accuracy of the underlying data utilized by management.
- We evaluated the appropriateness of the methodology used by management in developing the credit adjusted risk-free rate and tested it by comparing the Company's credit adjusted risk-free rate to an independent data source.
- We assessed the qualifications, reputation, and objectivity of management's third-party engineering specialists.

/s/ RSM US LLP

We have served as the Company's auditor since 2010.

Boston, Massachusetts

February 17, 2023

CASELLA WASTE SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(in thousands)

	December 31, 2022	December 31, 2021
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	\$ 71,152	\$ 33,809
Accounts receivable, net of allowance for credit losses of \$3,016 and \$3,276, respectively	100,886	86,979
Prepaid expenses	15,182	12,766
Inventory	13,472	9,729
Other current assets	6,787	3,196
Total current assets	207,479	146,479
Property, plant and equipment, net of accumulated depreciation and amortization of \$1,064,756 and \$973,094, respectively	720,550	644,604
Operating lease right-of-use assets	92,063	93,799
Goodwill	274,458	232,860
Intangible assets, net	91,783	93,723
Restricted assets	1,900	2,122
Cost method investments	10,967	11,264
Deferred income taxes	22,903	43,957
Other non-current assets	27,112	14,772
Total assets	<u>\$ 1,449,215</u>	<u>\$ 1,283,580</u>

The accompanying notes are an integral part of these consolidated financial statements.

CASELLA WASTE SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS (Continued)
(in thousands, except for share and per share data)

	December 31, 2022	December 31, 2021
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Current maturities of debt	\$ 8,968	\$ 9,901
Current operating lease liabilities	7,000	7,307
Accounts payable	74,203	63,086
Accrued payroll and related expenses	23,556	22,210
Accrued interest	2,858	2,042
Contract liabilities	3,742	3,404
Current accrued capping, closure and post-closure costs	11,036	7,915
Other accrued liabilities	46,237	36,328
Total current liabilities	177,600	152,193
Debt, less current portion	585,015	542,503
Operating lease liabilities, less current portion	57,345	56,375
Accrued capping, closure and post-closure costs, less current portion	102,642	78,999
Deferred income taxes	437	868
Other long-term liabilities	28,276	30,185
COMMITMENTS AND CONTINGENCIES		
STOCKHOLDERS' EQUITY:		
Class A common stock, \$0.01 par value per share; 100,000,000 shares authorized; 50,704,000 and 50,423,000 shares issued and outstanding, respectively	507	504
Class B common stock, \$0.01 par value per share; 1,000,000 shares authorized; 988,000 shares issued and outstanding; 10 votes per share	10	10
Additional paid-in capital	661,761	652,045
Accumulated deficit	(171,920)	(224,999)
Accumulated other comprehensive income (loss), net of tax	7,542	(5,103)
Total stockholders' equity	497,900	422,457
Total liabilities and stockholders' equity	\$ 1,449,215	\$ 1,283,580

The accompanying notes are an integral part of these consolidated financial statements.

CASELLA WASTE SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except for per share data)

	Fiscal Year Ended December 31,		
	2022	2021	2020
Revenues	\$ 1,085,089	\$ 889,211	\$ 774,584
Operating expenses:			
Cost of operations	723,117	582,403	515,646
General and administration	133,419	118,834	102,410
Depreciation and amortization	126,351	103,590	90,782
Expense from acquisition activities	4,613	5,304	1,862
Southbridge Landfill closure charge, net	1,436	496	4,587
Environmental remediation charge	759	924	—
	<u>989,695</u>	<u>811,551</u>	<u>715,287</u>
Operating income	<u>95,394</u>	<u>77,660</u>	<u>59,297</u>
Other expense (income):			
Interest income	(709)	(302)	(303)
Interest expense	23,722	21,229	22,371
Other income	(2,585)	(1,313)	(1,073)
Other expense, net	<u>20,428</u>	<u>19,614</u>	<u>20,995</u>
Income before income taxes	74,966	58,046	38,302
Provision (benefit) for income taxes	<u>21,887</u>	<u>16,946</u>	<u>(52,804)</u>
Net income	<u>\$ 53,079</u>	<u>\$ 41,100</u>	<u>\$ 91,106</u>
Basic earnings per share attributable to common stockholders:			
Weighted average common shares outstanding	<u>51,623</u>	<u>51,312</u>	<u>48,793</u>
Basic earnings per common share	<u>\$ 1.03</u>	<u>\$ 0.80</u>	<u>\$ 1.87</u>
Diluted earnings per share attributable to common stockholders:			
Weighted average common shares outstanding	<u>51,767</u>	<u>51,515</u>	<u>49,045</u>
Diluted earnings per common share	<u>\$ 1.03</u>	<u>\$ 0.80</u>	<u>\$ 1.86</u>

The accompanying notes are an integral part of these consolidated financial statements.

CASELLA WASTE SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF
COMPREHENSIVE INCOME
(in thousands)

	Fiscal Year Ended December 31,		
	2022	2021	2020
Net income	\$ 53,079	\$ 41,100	\$ 91,106
Other comprehensive income (loss), before tax:			
Hedging activity:			
Interest rate swap settlements	(1,662)	(4,743)	(3,644)
Interest rate swap amounts reclassified into interest expense	1,443	4,763	3,679
Unrealized gain (loss) resulting from changes in fair value of derivative instruments	16,959	8,480	(7,540)
Other comprehensive income (loss)	16,740	8,500	(7,505)
Tax effect related to items of other comprehensive income (loss)	4,095	2,086	(2,029)
Other comprehensive income (loss), net of tax	12,645	6,414	(5,476)
Comprehensive income	<u>\$ 65,724</u>	<u>\$ 47,514</u>	<u>\$ 85,630</u>

The accompanying notes are an integral part of these consolidated financial statements.

CASELLA WASTE SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENT OF
STOCKHOLDERS' EQUITY
(in thousands)

Casella Waste Systems, Inc. Stockholders' Equity									
	Total	Class A Common Stock		Class B Common Stock		Additional Paid-In Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	
		Shares	Amount	Shares	Amount				
Balance, December 31, 2019	\$ 122,753	46,803	\$ 468	988	\$ 10	\$ 485,332	\$ (357,016)	\$ (6,041)	
Cumulative effect of new accounting principle	(189)	—	—	—	—	—	(189)	—	
Issuance of Class A common stock - equity offering	144,790	2,703	27	—	—	144,763	—	—	
Issuances of Class A common stock	939	559	5	—	—	934	—	—	
Issuance of Class A common stock - acquisition	—	36	1	—	—	(1)	—	—	
Stock-based compensation	8,219	—	—	—	—	8,219	—	—	
Comprehensive income:									
Net income	91,106	—	—	—	—	—	91,106	—	
Other comprehensive loss									
Hedging activity	(5,476)	—	—	—	—	—	—	(5,476)	
Balance, December 31, 2020	362,142	50,101	501	988	10	639,247	(266,099)	(11,517)	
Issuances of Class A common stock	1,250	322	3	—	—	1,247	—	—	
Stock-based compensation	11,551	—	—	—	—	11,551	—	—	
Comprehensive income:									
Net income	41,100	—	—	—	—	—	41,100	—	
Other comprehensive income									
Hedging activity	6,414	—	—	—	—	—	—	6,414	
Balance, December 31, 2021	422,457	50,423	504	988	10	652,045	(224,999)	(5,103)	
Issuances of Class A common stock	1,564	281	3	—	—	1,561	—	—	
Stock-based compensation	8,155	—	—	—	—	8,155	—	—	
Comprehensive income:									
Net income	53,079	—	—	—	—	—	53,079	—	
Other comprehensive income									
Hedging activity	12,645	—	—	—	—	—	—	12,645	
Balance, December 31, 2022	\$ 497,900	50,704	\$ 507	988	\$ 10	\$ 661,761	\$ (171,920)	\$ 7,542	

The accompanying notes are an integral part of these consolidated financial statements.

CASELLA WASTE SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Fiscal Year Ended December 31,		
	2022	2021	2020
Cash Flows from Operating Activities:			
Net income	\$ 53,079	\$ 41,100	\$ 91,106
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	126,351	103,590	90,782
Interest accretion on landfill and environmental remediation liabilities	8,008	7,324	7,090
Amortization of debt issuance costs on long-term debt	1,903	2,288	2,169
Stock-based compensation	8,155	11,551	8,219
Operating lease right-of-use assets expense	13,804	13,827	16,257
Disposition of assets, other items and charges, net	737	1,055	1,753
Deferred income taxes	16,527	15,073	(52,288)
Changes in assets and liabilities, net of effects of acquisitions and divestitures:			
Accounts receivable	(7,101)	(7,422)	5,815
Landfill operating lease contract expenditures	(5,486)	(5,655)	(5,386)
Accounts payable	11,075	13,888	(15,226)
Prepaid expenses, inventories and other assets	(11,054)	(6,343)	(1,211)
Accrued expenses, contract liabilities and other liabilities	1,316	(7,539)	(9,158)
Net cash provided by operating activities	217,314	182,737	139,922
Cash Flows from Investing Activities:			
Acquisitions, net of cash acquired	(78,197)	(170,647)	(32,457)
Additions to property, plant and equipment	(130,960)	(123,295)	(108,108)
Proceeds from sale of cost method investment	1,637	—	—
Proceeds from sale of property and equipment	600	788	533
Net cash used in investing activities	(206,920)	(293,154)	(140,032)
Cash Flows from Financing Activities:			
Proceeds from debt borrowings	88,200	3,701	157,000
Principal payments on debt	(59,211)	(10,305)	(149,378)
Payments of debt issuance costs	(1,232)	(3,684)	(1,531)
Payments of contingent consideration	(1,000)	—	—
Proceeds from the exercise of share based awards	192	172	100
Proceeds from the public offering of Class A Common Stock	—	—	144,790
Net cash provided by (used in) financing activities	26,949	(10,116)	150,981
Net increase (decrease) in cash and cash equivalents	37,343	(120,533)	150,871
Cash and cash equivalents, beginning of period	33,809	154,342	3,471
Cash and cash equivalents, end of period	\$ 71,152	\$ 33,809	\$ 154,342

The accompanying notes are an integral part of these consolidated financial statements.

CASELLA WASTE SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS (Continued)
(in thousands)

	Fiscal Year Ended December 31,		
	2022	2021	2020
Supplemental Disclosures of Cash Flow Information:			
Cash paid during the period for:			
Interest	\$ 21,003	\$ 19,025	\$ 20,117
Income tax payments (refunds), net	\$ 2,798	\$ 1,438	\$ (1,534)
Supplemental Disclosures of Non-Cash Investing and Financing Activities:			
Non-current assets acquired through long-term financing obligations	\$ 11,919	\$ 20,753	\$ 18,069

The accompanying notes are an integral part of these consolidated financial statements.

CASELLA WASTE SYSTEMS, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(in thousands, except for per share data)

1. BASIS OF PRESENTATION

Casella Waste Systems, Inc. (“Parent”) and its subsidiaries (collectively, “we”, “us” or “our”), is a regional, vertically integrated solid waste services company. We provide resource management expertise and services to residential, commercial, municipal, institutional and industrial customers, primarily in the areas of solid waste collection and disposal, transfer, recycling and organics services. We provide integrated solid waste services in seven states: Vermont, New Hampshire, New York, Massachusetts, Connecticut, Maine and Pennsylvania, with our headquarters located in Rutland, Vermont. We manage our solid waste operations on a geographic basis through two regional operating segments, the Eastern and Western regions, each of which provides a full range of solid waste services. We manage our resource-renewal operations through the Resource Solutions operating segment, which leverages our core competencies in materials processing, industrial recycling, organics and resource management service offerings to deliver a comprehensive solution for our larger commercial, municipal, institutional and industrial customers that have more diverse waste and recycling needs. Legal, tax, information technology, human resources, certain finance and accounting and other administrative functions are included in our Corporate Entities segment.

The accompanying consolidated financial statements, which include the accounts of the Parent and our wholly-owned subsidiaries have been prepared in accordance with generally accepted accounting principles in the United States (“GAAP”) pursuant to the rules and regulations of the Securities and Exchange Commission (“SEC”). All significant intercompany accounts and transactions are eliminated in consolidation. Investments in entities in which we do not have a controlling financial interest are accounted for under either the equity method or the cost method of accounting, as appropriate.

When necessary, certain prior period amounts in the consolidated financial statements have been conformed to current period presentation, including the presentation of certain adjustments to reconcile net income to net cash provided by operating activities, which have been reclassified within cash flows from operating activities, and the presentation of the purchase price allocation for acquisitions.

2. ACCOUNTING CHANGES

A table providing a brief description of recent Accounting Standards Updates ("ASUs") to the Accounting Standards Codification ("ASC") issued by the Financial Accounting Standards Board ("FASB") that are pending adoption and deemed to have a possible material impact on our consolidated financial statements based on current account balances and activity follows:

Standard	Description	Effect on the Financial Statements or Other Significant Matters
<i>Accounting standards issued pending adoption as of December 31, 2022</i>		
ASU No. 2020-04: Reference Rate Reform (Topic 848), as amended through December 2022	Provides temporary optional guidance to ease the potential burden in applying GAAP to contract modifications and hedging relationships that reference London Inter-Bank Offered Rate ("LIBOR") or another reference rate expected to be discontinued, subject to meeting certain criteria.	We currently have interest rate derivative agreements with hedging relationships that reference LIBOR, which is going to be discontinued effective July 1, 2023. This guidance provides optional expedients and exceptions for applying GAAP to contracts, hedging relationships and other transactions affected by reference rate reform if certain criteria are met. Effective February 9, 2023, we elected optional expedients under this guidance that provide temporary relief over contract modifications and hedge accounting in order to maintain hedge effectiveness upon modifying contract terms related to reference rate reform in our amended and restated credit agreement and transition our interest rate derivative agreements from LIBOR to another reference rate. See Note 12, <i>Debt</i> . The adoption of this guidance did not have a material impact on our consolidated financial statements and related disclosures. This guidance will be in effect through December 31, 2024.
ASU No. 2021-08: Accounting for Contract Assets and Contract Liabilities from Contracts with Customers (Topic 805)	Requires entities to apply ASC 606 to recognize and measure contract assets and contract liabilities in a business combination. This guidance improves comparability after the business combination by providing consistent recognition and measurement guidance for revenue contracts with customers acquired in a business combination and revenue contracts with customers not acquired in a business combination.	We have made in the past, and we may make in the future, acquisitions to densify existing operations, expand service areas, and grow services for our customers and these acquisitions may include contract assets or contract liabilities. The adoption of this guidance did not have a material impact on our consolidated financial statements and related disclosures. We adopted this guidance effective January 1, 2023.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Management's Estimates and Assumptions

Preparation of our consolidated financial statements in accordance with GAAP requires management to make certain estimates and assumptions. These estimates and assumptions affect the accounting for and recognition and disclosure of assets, liabilities, equity, revenues and expenses. We must make these estimates and assumptions because certain information that we use is dependent on future events, cannot be calculated with a high degree of precision given the available data or simply cannot be readily calculated. In some cases, these estimates are difficult to determine, and we must exercise significant judgment. In preparing our consolidated financial statements, the estimates and assumptions that we consider to be significant and that present the greatest amount of uncertainty relate to our accounting for landfills, environmental remediation liabilities, asset impairments, if applicable, accounts receivable valuation allowance for credit losses, self-insurance reserves, deferred taxes and uncertain tax positions, estimates of the fair values of assets acquired and liabilities assumed in any acquisition, contingent liabilities and stock-based compensation. Each of these items is discussed in more detail elsewhere in these notes to the consolidated financial statements, as applicable. Actual results may differ materially from the estimates and assumptions that we use in the preparation of our consolidated financial statements.

Cash and Cash Equivalents

We consider all highly liquid investments purchased with original maturities of three months or less to be cash equivalents.

Concentrations of Credit Risk

Financial instruments that potentially subject us to concentrations of credit risk consist of cash and cash equivalents, restricted investment securities, accounts receivable and derivative instruments. We maintain cash and cash equivalents and restricted investment securities with banks that at times exceed applicable insurance limits. We reduce our exposure to credit risk by maintaining such deposits with high quality financial institutions. Our concentration of credit risk with respect to accounts receivable is limited because of the large number and diversity of customers we serve, thus reducing the credit risk associated with any one customer group. As of December 31, 2022, no single customer or customer group represented greater than 5% of total accounts receivable. We manage credit risk through credit evaluations, credit limits, and monitoring procedures, but generally do not require collateral to support accounts receivable. We reduce our exposure to credit risk associated with derivative instruments by entering into agreements with high quality financial institutions and by evaluating and regularly monitoring their creditworthiness.

Accounts Receivable, Net of Allowance for Credit Losses

Accounts receivable represent receivables from customers for collection, transfer, recycling, disposal and other services. Our accounts receivable are recorded when billed or when related revenue is earned, if earlier, and represent claims against third-parties that will be settled in cash. The carrying value of our accounts receivable, net of allowance for credit losses represents its estimated net realizable value. Estimates are used in determining our allowance for credit losses based on, among other things, our historical loss trends, the age of outstanding accounts receivable, and current and expected economic conditions. Our reserve is evaluated and revised on a monthly basis. Past due accounts receivable are written off when deemed to be uncollectible. See Note 6, *Accounts Receivable, Net of Allowance for Credit Losses* for disclosure over allowance for credit losses.

Inventory

Inventory includes secondary fibers, recyclables ready for sale, and parts and supplies. Inventory is stated at the lower of cost (first-in, first-out) or market.

Property, Plant and Equipment

Property, plant and equipment is recorded at cost, less accumulated depreciation and amortization. We provide for depreciation and amortization using the straight-line method by charges to operations in amounts that allocate the cost of the assets over their estimated useful lives as follows:

Asset Classification	Estimated Useful Life
Buildings and improvements	10-30 years
Machinery and equipment	5-10 years
Rolling stock	5-10 years
Containers	5-12 years
Furniture and Fixtures	3-8 years

The cost of maintenance and repairs is charged to operations as incurred.

Landfill development costs are included in property, plant and equipment. Landfill development costs include costs to develop each of our landfill sites, including such costs related to landfill liner material and installation, excavation for airspace, landfill leachate collection systems, landfill gas collection systems, environmental monitoring equipment for groundwater and landfill gas, directly related engineering, capitalized interest, on-site road construction, and other capital infrastructure. Additionally, landfill development costs include all land purchases within the landfill footprint and the purchase of any required landfill buffer property. Under life-cycle accounting, these costs are capitalized and charged to expense based on tonnage placed into each site. See the “*Landfill Accounting*” accounting policy below for additional disclosure about the amortization of landfill development costs and Note 7, *Property, Plant and Equipment* for disclosure about property, plant and equipment.

Landfill Accounting

Life Cycle Accounting

Under life-cycle accounting, all costs related to acquisition and construction of landfill sites are capitalized and charged to expense based on tonnage placed into each site. Landfill permitting, acquisition and preparation costs are amortized on the units-of-consumption method as landfill airspace is consumed. In determining the amortization rate for each of our landfills, preparation costs include the total estimated costs to complete construction of the landfills' permitted and expansion capacity.

Landfill Development Costs

We estimate the total cost to develop each of our landfill sites to its remaining permitted and expansion capacity (see landfill development costs discussed within the "*Property, Plant and Equipment*" accounting policy above). The projection of these landfill costs is dependent, in part, on future events. The remaining amortizable basis of each landfill includes costs to develop a site to its remaining permitted and expansion capacity and includes amounts previously expended and capitalized, net of accumulated airspace amortization, and projections of future purchase and development costs including capitalized interest. The interest capitalization rate is based on our weighted average interest rate incurred on borrowings outstanding during the period. Interest capitalized during the fiscal years ended December 31, 2022 ("fiscal year 2022"), December 31, 2021 ("fiscal year 2021") and December 31, 2020 ("fiscal year 2020") was \$330, \$718 and \$413, respectively.

Landfill Airspace

We apply the following guidelines in determining a landfill's remaining permitted and expansion airspace:

Remaining Permitted Airspace. Our engineers, in consultation with third-party engineering consultants and surveyors, are responsible for determining remaining permitted airspace at our landfills. The remaining permitted airspace is determined by an annual survey, which is then used to compare the existing landfill topography to the expected final landfill topography.

Expansion Airspace. We currently include unpermitted expansion airspace in our estimate of remaining permitted and expansion airspace in certain circumstances. To be considered expansion airspace all of the following criteria must be met:

- we control the land on which the expansion is sought;
- all technical siting criteria have been met or a variance has been obtained or is reasonably expected to be obtained;
- we have not identified any legal or political impediments which we believe will not be resolved in our favor;
- we are actively working on obtaining any necessary permits and we expect that all required permits will be received; and
- senior management has approved the project based on a review of the engineering design and determination that the financial return profile meets our investment criteria.

For unpermitted airspace to be included in our estimate of remaining permitted and expansion airspace, the expansion effort must meet all of the criteria listed above. These criteria are evaluated annually by our engineers, accountants, lawyers, managers and others to identify potential obstacles to obtaining the permits. Once the remaining permitted and expansion airspace is determined in cubic yards, an airspace utilization factor ("AUF") is established to calculate the remaining permitted and expansion capacity in tons. The AUF is established using a process that considers the measured density obtained from annual surveys. When we include the expansion airspace in our calculation of remaining permitted and expansion airspace, we include the projected costs for development, as well as the projected asset retirement costs related to final capping, closure and post-closure of the expansion airspace in the amortization basis of the landfill.

After determining the costs and the remaining permitted and expansion capacity at each of our landfills, we determine the per ton rates that will be expensed as waste is received and deposited at each of our landfills by dividing the costs by the corresponding number of tons. We calculate per ton amortization rates for assets associated with each final capping event, for assets related to closure and post-closure activities, and for all other costs capitalized or to be capitalized in the future for each landfill. These rates per ton are updated annually, or more frequently, as significant facts change.

It is possible that actual results, including the amount of costs incurred, the timing of final capping, closure and post-closure activities, our airspace utilization or the success of our expansion efforts, could ultimately turn out to be significantly different from our estimates and assumptions. To the extent that such estimates or related assumptions prove to be significantly different than actual results, lower profitability may be experienced due to higher amortization rates, higher final capping, closure or post-closure rates, or higher expenses. Higher profitability may result if the opposite occurs. Most significantly, if it is determined that the expansion capacity should no longer be considered in calculating the recoverability of the landfill asset, we may be required to recognize an asset impairment. If it is determined that the likelihood of receiving an expansion permit has become remote, the capitalized costs related to the expansion effort are expensed immediately.

Final Capping, Closure and Post-Closure Costs

The following is a description of our landfill asset retirement activities and related accounting:

Final Capping Costs. Final capping activities include the installation of liners, drainage, compacted soil layers and topsoil over areas of a landfill where total airspace has been consumed and waste is no longer being received. Final capping activities occur throughout the life of the landfill. Our engineering personnel estimate the cost for each final capping event based on the acreage to be capped, along with the final capping materials and activities required. The estimates also consider when these costs would actually be paid and factor in inflation and discount rates. The engineers then quantify the landfill capacity associated with each final capping event and the costs for each event are amortized over that capacity as waste is received at the landfill.

Closure and Post-Closure Costs. Closure and post-closure costs represent future estimated costs related to monitoring and maintenance of a solid waste landfill after a landfill facility ceases to accept waste and closes. We estimate, based on input from our engineers, accountants, lawyers, managers and others, our future cost requirements for closure and post-closure monitoring and maintenance based on our interpretation of the Subtitle D regulations and the air emissions standards under the Clean Air Act of 1970, as amended, as they are being applied on a state-by-state basis. Closure and post-closure accruals for the cost of monitoring and maintenance include site inspection, groundwater monitoring, leachate management, methane gas control and recovery, and operation and maintenance costs to be incurred for a period which is generally for a term of 30 years after final closure of a landfill. In determining estimated future closure and post-closure costs, we consider costs associated with permitted and permittable airspace.

Our estimated future final capping, closure and post-closure costs, based on our interpretation of current requirements and proposed regulatory changes, are intended to approximate fair value. Absent quoted market prices, our cost estimates are based on historical experience, professional engineering judgment and quoted or actual prices paid for similar work. Our estimate of costs to discharge final capping, closure and post-closure asset retirement obligations for landfills are developed in today's dollars. These costs are then inflated to the period of performance using an estimate of inflation, which is updated annually (2.2% as of December 31, 2022). Final capping, closure and post-closure liabilities are then discounted using the credit adjusted risk-free rate in effect at the time the obligation is incurred. The weighted average rate applicable to our asset retirement obligations as of December 31, 2022 is between approximately 5.1% and 9.9%, the range of the credit adjusted risk free rates effective since the adoption of guidance associated with asset retirement obligations in the fiscal year ended April 30, 2004. Accretion expense is necessary to increase the accrued final capping, closure and post-closure liabilities to the future anticipated obligation. To accomplish this, we accrete our final capping, closure and post-closure accrual balances using the same credit-adjusted risk-free rate that was used to calculate the recorded liability. Accretion expense on recorded landfill liabilities is recorded to cost of operations from the time the liability is recognized until the costs are paid. Accretion expense on recorded landfill liabilities amounted to \$7,565, \$6,775 and \$6,436 in fiscal years 2022, 2021 and 2020, respectively.

We provide for the accrual and amortization of estimated future obligations for closure and post-closure based on tonnage placed into each site. With regards to final capping, the liability is recognized, and the costs are amortized based on the remaining airspace related to the specific final capping event. See Note 10, *Final Capping, Closure and Post-Closure Costs* for disclosure about asset retirement obligations related to final capping, closure and post-closure costs.

We operate in states which require a certain portion of landfill final capping, closure and post-closure obligations to be secured by financial assurance, which may take the form of surety bonds, letters of credit and restricted investment securities. Surety bonds securing closure and post-closure obligations at December 31, 2022 and December 31, 2021 totaled \$231,871 and \$209,275, respectively. There are no letters of credit securing closure and post-closure obligations as of December 31, 2022 and December 31, 2021. See Note 15, *Fair Value of Financial Instruments* for disclosure about restricted investment securities securing closure and post-closure obligations.

Lease Accounting

We lease vehicles, equipment, property and other non-core equipment in the ordinary course of our business. Leases are classified as either operating leases or finance leases, as appropriate. Our leases have varying terms and may include renewal or purchase options, escalation clauses, restrictions, lease concessions, capital project funding, penalties or other obligations that we considered historically in determining minimum rental payments. We recognize lease expense for operating leases on a straight-line basis over the lease term. We recognize depreciation expense for finance leases over either the useful life of the asset or the lease term based on the terms of the lease agreement.

We are also party to three landfill operation and management agreements that we account for as operating leases. These agreements are long-term landfill operating contracts with government bodies whereby we receive tipping revenue, pay normal operating expenses and assume future final capping, closure and post-closure obligations. The government bodies retain ownership of each landfill. There are no bargain purchase options and title to each of the properties does not pass to us at the end of the respective lease terms. We allocate the consideration paid to the landfill airspace rights and underlying land lease based on the relative fair values.

In addition to up-front or one-time payments, the landfill operating agreements may require us to make future minimum rental payments, including success or expansion fees, other direct costs and final capping, closure and post-closure costs. The value of all future minimum rental payments is amortized and charged to cost of operations over the life of the contract. We amortize the consideration allocated to airspace rights as airspace is utilized on a units-of-consumption basis and such amortization is charged to cost of operations as airspace is consumed (e.g., as tons are placed into the landfill). The underlying value of any land lease is amortized to cost of operations on a straight-line basis over the estimated life of the respective operating agreement.

We recognize a right-of-use asset and a lease liability for core leases classified as operating leases with a term in excess of 12 months in our consolidated balance sheets. For other non-core operating leases, which are comprised of small-dollar-value items such as office equipment, we expense these costs in the period incurred rather than capitalizing such expenditures on our consolidated balance sheets. We identify lease and nonlease components in a contract to which consideration in the contract will be allocated. We may elect by class of underlying asset to choose not to separate nonlease components from lease components and instead account for each separate lease component and the nonlease components in a contract as part of the single lease component. We have elected to not separate lease components from nonlease components for property leases and are, therefore, not allocating consideration between lease and nonlease components for this asset class. Lease payments include: fixed payments, including in-substance fixed payments, less any lease incentives paid or payable to the lessee; variable lease payments that depend on an index or a rate; exercise price of a purchase option reasonably certain to be exercised; penalties for terminating a lease; and amounts where it is probable that we will owe under a residual value guarantee. Refundable deposits are not considered to be a fixed payment. Variable lease costs that are not based on an index or a rate are recorded to expense in the period incurred. Lease term is determined at lease commencement and includes any noncancellable period for which we have the right to use the underlying asset together with any periods covered by an option to extend or terminate the lease if we are reasonably certain to exercise the option to extend or not to exercise the option to terminate. The initial determination of a lease liability is calculated as the net present value of the lease payments not yet paid. The discount rate used to determine present value is the rate implicit in the lease, if present, or, if not present, our incremental borrowing rate, which is a rate that reflects interest that we would have to pay to borrow funds on a collateralized basis over a similar term to the lease and in a similar economic environment. For shorter term leases, such as vehicle and equipment leases, we calculate our incremental borrowing rate using the interest rate from our existing secured line of credit, adjusted based on term. For longer term leases, such as our landfill operating leases, we calculate our incremental borrowing rate based on an industry yield curve with a similar credit rating, adjusted by a company specific spread as determined by a third-party. See Note 8, *Leases* for further disclosure about lease costs and other lease information.

Goodwill and Intangible Assets

Goodwill. Goodwill is the excess of our purchase consideration over the fair value of the net assets of acquired businesses. We do not amortize goodwill, but as discussed in the “*Asset Impairments*” accounting policy below, we assess our goodwill for impairment at least annually. See Note 9, *Goodwill and Intangible Assets* for disclosure about goodwill.

Intangible Assets. Intangible assets consist primarily of covenants not-to-compete, customer relationships, and trade names. Intangible assets are recorded at fair value and are amortized based on the economic benefit provided or using the sum of years digits or straight-line methods over their estimated useful lives. Covenants not-to-compete, customer relationships and trade names are typically amortized over a term of no more than 10 years. See Note 9, *Goodwill and Intangible Assets* for disclosure about intangible assets.

Investments in Unconsolidated Entities

Investments in unconsolidated entities over which we have significant influence over the investees’ operating and financing activities are accounted for under the equity method of accounting. As of December 31, 2022 and December 31, 2021, we had no investments accounted for under the equity method of accounting. Investments in affiliates in which we do not have the ability to exert significant influence over the investees’ operating and financing activities are accounted for under the cost method of accounting. As of December 31, 2022 and December 31, 2021, we had cost method investments totaling \$10,967 and \$11,264, respectively.

We monitor and assess the carrying value of our investments throughout the year for potential impairment and write them down to their fair value when other-than-temporary declines exist. Fair value is generally based on: (i) other third-party investors’ recent transactions in the securities; (ii) other information available regarding the current market for similar assets; and/or (iii) a market or income approach, as deemed appropriate.

When we assess the carrying value of our investments for potential impairment, determining the fair value of our investments is reliant upon the availability of market information and/or other information provided by third-parties to be able to develop an estimate of fair value. Considerable judgment is required in interpreting market data to develop the estimates of fair value. Accordingly, our estimates are not necessarily indicative of the amounts that we, or other holders of these investments, could realize in a current market exchange. The use of different assumptions and/or estimation methodologies could have a significant effect on the estimated fair values. The estimates of fair value could differ significantly from the amounts presented. See “*Asset Impairments*” accounting policy below.

Fair Value of Financial Instruments

Our financial instruments may include cash and cash equivalents, accounts receivable, restricted investment securities held in trust on deposit with various banks as collateral for our obligations relative to our landfill final capping, closure and post-closure costs, interest rate derivatives, contingent consideration related to acquisitions, trade payables and debt. Accounting standards include disclosure requirements around fair values used for certain financial instruments and establish a fair value hierarchy. The three-tier hierarchy prioritizes valuation inputs into three levels based on the extent to which inputs used in measuring fair value are observable in the market. Each fair value measurement is reported in one of three levels: Level 1, defined as quoted market prices in active markets for identical assets or liabilities; Level 2, defined as inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; and Level 3, defined as unobservable inputs that are not corroborated by market data. See Note 12, *Debt* and Note 15, *Fair Value of Financial Instruments* for fair value disclosure about debt and financial instruments, respectively. See the “*Derivatives and Hedging*” accounting policy below for the fair value disclosure about interest rate derivatives.

Business Combinations

We acquire businesses in the waste industry, including non-hazardous waste collection, transfer station, recycling and disposal operations, as part of our growth strategy. Businesses are included in the consolidated financial statements from the date of acquisition.

We recognize, separately from goodwill, the identifiable assets acquired and liabilities assumed at their estimated acquisition-date fair values. We measure and recognize goodwill as of the acquisition date as the excess of: (a) the aggregate of the fair value of consideration transferred, the fair value of any noncontrolling interest in the acquiree (if any) and the acquisition date fair value of our previously held equity interest in the acquiree (if any), over (b) the fair value of net assets acquired and liabilities assumed. If information about facts and circumstances existing as of the acquisition date is incomplete by the end of the reporting period in which a business combination occurs, we will report provisional amounts for the items for which the accounting is incomplete. The measurement period ends once we receive the information we were seeking; however, this period will not extend beyond one year from the acquisition date. Any material adjustments recognized during the measurement period will be recognized retrospectively in the consolidated financial statements of the current period. All acquisition-related transaction and restructuring costs are to be expensed as incurred. See Note 5, *Business Combinations* for disclosure about business acquisitions.

Environmental Remediation Liabilities

We have recorded environmental remediation liabilities representing our estimate of the most likely outcome of the matters for which we have determined that a liability is probable. These liabilities include potentially responsible party investigations, settlements, certain legal and consultant fees, as well as costs directly associated with site investigation and clean up, such as materials and incremental internal costs directly related to the remedy. We provide for expenses associated with environmental remediation obligations when such amounts are probable and can be reasonably estimated. We estimate costs required to remediate sites where it is probable that a liability has been incurred based on site-specific facts and circumstances. Estimates of the cost for the likely remedy are developed using third-party environmental engineers or other service providers. Where we believe that both the amount of a particular environmental remediation liability and timing of payments are reliably determinable, we inflate the cost in current dollars until the expected time of payment and discount the cost to present value. See Note 13, *Commitments and Contingencies* for disclosure about environmental remediation liabilities.

Self-Insurance Liabilities and Related Costs

We are self-insured for vehicles and workers' compensation with reinsurance coverage limiting our maximum exposure. In fiscal year 2022, our maximum exposure per individual event under the workers' compensation plan was \$1,250. In fiscal year 2022, our minimum and maximum exposure per individual event under the automobile plan were up to \$1,500 and \$3,650, respectively. The liability for unpaid claims and associated expenses, including incurred but not reported losses, is determined by management with the assistance of a third-party actuary and reflected in our consolidated balance sheets as an accrued liability. We use a third-party to track and evaluate actual claims experience for consistency with the data used in the annual actuarial valuation. The actuarial-determined liability is calculated based on historical data, which considers both the frequency and settlement amount of claims. Our self-insurance reserves totaled \$22,184 and \$19,847 as of December 31, 2022 and December 31, 2021, respectively. Our estimated accruals for these liabilities could be significantly different than our ultimate obligations if variables such as the frequency or severity of future events differ significantly from our assumptions.

Income Taxes

We use estimates to determine our provision for income taxes and related assets and liabilities and any valuation allowance recorded against our net deferred tax assets. Valuation allowances have been established for the possibility that tax benefits may not be realized for certain deferred tax assets. Deferred income taxes are recognized based on the expected future tax consequences of differences between the financial statement basis and the tax basis of assets and liabilities, calculated using currently enacted tax rates. We record net deferred tax assets to the extent we believe these assets will more likely than not be realized. In making this determination, we consider all available positive and negative evidence, including scheduled reversals of deferred tax liabilities, projected future taxable income, tax planning strategies and recent financial operations. In the event we determine that we would be able to realize our deferred income tax assets in the future in excess of their net recorded amount, we will make an adjustment to the valuation allowance which would reduce the provision for income taxes.

We account for income tax uncertainties according to guidance on the recognition, derecognition and measurement of potential tax benefits associated with tax positions. We recognize interest and penalties relating to income tax matters as a component of income tax expense.

See Note 17, *Income Taxes* for disclosure related to income taxes, including the effect of the valuation allowance release in fiscal year 2020.

Derivatives and Hedging

We account for derivatives and hedging activities in accordance with derivatives and hedging accounting guidance that establishes accounting and reporting standards requiring that every derivative instrument (including certain derivative instruments embedded in other contracts) be recorded in the consolidated balance sheet as either an asset or liability measured at its fair value. The guidance requires that changes in the derivative's fair value be recognized currently in earnings unless specific hedge accounting criteria are met.

Our strategy to reduce exposure to interest rate risk involves entering into interest rate derivative agreements to hedge against adverse movements in interest rates related to the variable rate portion of our long-term debt. We have designated these derivative instruments as highly effective cash flow hedges, and therefore the change in their fair value is recorded in stockholders' equity as a component of accumulated other comprehensive income (loss), net of tax and included in interest expense at the same time as interest expense is affected by the hedged transactions. Differences paid or received over the life of the agreements are recorded as additions to or reductions of interest expense on the underlying debt and included in cash flows from operating activities. See Note 15, *Fair Value of Financial Instruments* for fair value disclosure about derivative instruments and Note 12, *Debt* for further disclosure about interest rate derivatives.

Contingent Liabilities

We are subject to various legal proceedings, claims and regulatory matters, the outcomes of which are subject to significant uncertainty. We determine whether to disclose or accrue for loss contingencies based on an assessment of whether the risk of loss is remote, reasonably possible or probable, and whether it can be reasonably estimated. We analyze our litigation and regulatory matters based on available information to assess the potential liabilities. Management's assessment is developed based on an analysis of possible outcomes under various strategies. We accrue for loss contingencies when such amounts are probable and reasonably estimable. If a contingent liability is only reasonably possible, we will disclose the potential range of the loss, if estimable. We record losses related to contingencies in cost of operations or general and administration expenses, depending on the nature of the underlying transaction leading to the loss contingency. See Note 13, *Commitments and Contingencies* for disclosure about loss contingencies, as applicable. Contingent liabilities accounted for under purchase accounting are recorded at their fair values. These fair values may be different from the values we would have otherwise recorded, had the contingent liability not been assumed as part of an acquisition of a business. See Note 5, *Business Combinations* and Note 15, *Fair Value of Financial Instruments* for disclosure about contingent consideration accounted for under purchase accounting, as applicable.

Revenue Recognition

We disaggregate our revenues by applicable service line: collection, landfill, transfer, transportation, landfill gas-to-energy, processing, and non-processing, which we refer to as our Customer Solutions business. Under the revenue recognition guidance, revenues are measured based on the consideration specified in a contract with a customer. The circumstances that impact the timing and amount of revenue recognized for each applicable service line may vary based on the nature of the service performed. We generally recognize revenues for services over time as we satisfy the performance obligation by transferring control over the service to the customer as the service is performed and the benefit is received and consumed by the customer. Services are typically delivered in a series as a single bundled performance obligation over either a designated period of time or for specified number of services. Services may also be delivered as a single bundled service, on a period-to-period basis, or in a spot transaction. Consideration may be variable on a per ton basis and/or fixed. Fixed consideration is allocated to each distinct service and variable consideration is allocated to the increment of time that the service is performed, and we have the contractual right to the fee. Fees are typically billed weekly, monthly, quarterly or in advance. Generally, the amount of consideration that we have the right to receive that is invoiced to the customer directly corresponds to the value of our performance completed to date. We do not disclose the amount of variable consideration included in the transaction price that is allocated to outstanding performance obligations when the variable consideration is allocated entirely to unsatisfied performance obligations or to a wholly unsatisfied promise to transfer a distinct good or service that forms part of a single performance obligation. Revenues that are not satisfied over time are recognized at a point-in-time. This typically includes the sale of recycled or organic materials, as well as renewable energy credits ("RECs"). Revenues from the sale of organic or recycled materials are recognized at a point-in-time as control of the materials transfers to the customer upon shipment or pick-up by the customer. Revenues from the sale of RECs are recognized at a point-in-time as the trade is executed and control transfers to the customer.

Payments to customers that are not in exchange for a distinct good or service are recorded as a reduction of revenues. We make rebates to certain customers associated with payments for recycled or organic materials that are received and subsequently processed and sold to other third-parties. Rebates are generally recorded as a reduction of revenues upon the sale of such materials, or upon receipt of the recycled materials at our facilities. We did not record any revenues in fiscal years 2022, 2021, or 2020 from performance obligations satisfied in previous periods.

Contract receivables, which are included in Accounts receivable, net are recorded when billed or when related revenue is earned, if earlier, and represent claims against third-parties that will be settled in cash. Accounts receivable, net includes gross receivables from contracts of \$102,234 and \$89,232 as of December 31, 2022 and December 31, 2021, respectively. Certain customers are billed in advance and, accordingly, recognition of the related revenues is deferred as a contract liability until the services are provided and control is transferred to the customer. Contract liabilities of \$3,742 and \$3,404 as of December 31, 2022 and December 31, 2021, respectively, are presented separately on the consolidated balance sheets. Due to the short-term nature of advanced billings, substantially all of the deferred revenue recognized as a contract liability as of December 31, 2021 and December 31, 2020 was recognized as revenue during fiscal years 2022 and 2021, respectively, when the services were performed. See Note 4, *Revenue Recognition* for disclosure over revenues by applicable service line.

Asset Impairments

Recovery of Long-Lived Assets. We continually assess whether events or changes in circumstances have occurred that may warrant revision of the estimated useful lives of our long-lived assets (other than goodwill) or whether the remaining balances of those assets should be evaluated for possible impairment. Long-lived assets include, for example, capitalized landfill costs, other property, plant and equipment, identifiable intangible assets, and operating lease right-of-use assets. Events or changes in circumstances that may indicate that an asset may be impaired include the following:

- a significant decrease in the market price of an asset or asset group;
- a significant adverse change in the extent or manner in which an asset or asset group is being used or in its physical condition;
- a significant adverse change in legal factors or in the business climate that could affect the value of an asset or asset group, including an adverse action or assessment by a regulator;
- an accumulation of costs significantly in excess of the amount originally expected for the acquisition or construction of a long-lived asset;
- a current period operating or cash flow loss combined with a history of operating or cash flow losses or a projection or forecast that demonstrates continuing losses associated with the use of a long-lived asset or asset group;
- a current expectation that, more likely than not, a long-lived asset or asset group will be sold or otherwise disposed of significantly before the end of its previously estimated useful life; or
- an impairment of goodwill at a reporting unit.

There are certain indicators listed above that require significant judgment and understanding of the waste industry when applied to landfill development or expansion. For example, a regulator may initially deny a landfill expansion permit application although the expansion permit is ultimately granted. In addition, management may periodically divert waste from one landfill to another to conserve remaining permitted landfill airspace. Therefore, certain events could occur in the ordinary course of business and not necessarily be considered indicators of impairment due to the unique nature of the waste industry.

If an impairment indicator occurs, we perform a test of recoverability by comparing the carrying value of the asset or asset group to its undiscounted expected future cash flows. We group our long-lived assets for this purpose at the lowest level for which identifiable cash flows are primarily independent of the cash flows of other assets or asset groups. If the carrying values are in excess of undiscounted expected future cash flows, we measure any impairment by comparing the fair value of the asset or asset group to its carrying value.

To determine fair value, we use discounted cash flow analyses and estimates about the future cash flows of the asset or asset group. This analysis includes a determination of an appropriate discount rate, the amount and timing of expected future cash flows and growth rates. The cash flows employed in our discounted cash flow analyses are typically based on financial forecasts developed internally by management. The discount rate used is commensurate with the risks involved. We may also rely on third-party valuations and or information available regarding the market value for similar assets.

If the fair value of an asset or asset group is determined to be less than the carrying amount of the asset or asset group, impairment in the amount of the difference is recorded in the period that the impairment occurs. Estimating future cash flows requires significant judgment and projections may vary from the cash flows eventually realized.

Goodwill. We annually assess goodwill for impairment during the fourth quarter of our fiscal year or more frequently if events or circumstances indicate that impairment may exist.

We may assess whether a goodwill impairment exists using either a qualitative or a quantitative assessment. If we perform a qualitative assessment, it involves determining whether events or circumstances exist that indicate it is more likely than not that the fair value of a reporting unit is less than its carrying amount, including goodwill. If based on this qualitative assessment we determine it is not more likely than not that the fair value of a reporting unit is less than its carrying amount, we will not perform a quantitative assessment. If the qualitative assessment indicates that it is more likely than not that the fair value of a reporting unit is less than its carrying amount, or if we elect not to perform a qualitative assessment, we perform a quantitative assessment to determine whether goodwill impairment exists at the reporting unit.

In testing for goodwill impairment, we estimate the fair value of each reporting unit, which we have determined to be our geographic operating segments and our Resource Solutions operating segment, and compare the fair value with the carrying value of the net assets of each reporting unit. If the fair value is less than its carrying value, then we would recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value, noting that the amount is not to exceed the total amount of goodwill allocated to that reporting unit.

To determine the fair value of each of our reporting units as a whole we use discounted cash flow analyses, which require significant assumptions and estimates about the future operations of each reporting unit. Significant judgments inherent in this analysis include the determination of appropriate discount rates, the amount and timing of expected future cash flows and growth rates. The cash flows employed in our discounted cash flow analyses are based on financial forecasts developed internally by management. Our discount rate assumptions are based on an assessment of our risk adjusted discount rate, applicable for each reporting unit. In assessing the reasonableness of our determined fair values of our reporting units, we evaluate our results against our current market capitalization.

If the fair value of goodwill is less than its carrying value for a reporting unit, an impairment charge would be recorded to earnings. The loss recognized cannot exceed the carrying amount of goodwill. After a goodwill impairment loss is recognized, the adjusted carrying amount of goodwill becomes its new accounting basis.

In addition to an annual goodwill impairment assessment, we would evaluate a reporting unit for impairment if events or circumstances change between annual tests indicating a possible impairment. Examples of such events or circumstances include the following:

- a significant adverse change in legal status or in the business climate;
- an adverse action or assessment by a regulator;
- a more likely than not expectation that an operating segment or a significant portion thereof will be sold; or
- the testing for recoverability of a significant asset group within the operating segment.

We elected to perform a quantitative analysis as part of our annual goodwill impairment test for fiscal year 2022. As of October 1, 2022, our Eastern, Western and Resource Solutions reporting units indicated that the fair value of each reporting unit exceeded its carrying amount, including goodwill. Furthermore, in each case the fair value of our Eastern, Western and Resource Solutions reporting units exceeded its carrying value by in excess of 67%. We incurred no impairment of goodwill as a result of our annual goodwill impairment tests in fiscal years 2022, 2021 or 2020. However, there can be no assurance that goodwill will not be impaired at any time in the future.

Cost Method Investments. We monitor and assess the carrying value of our cost method investments throughout the year for potential impairment and write them down to their fair value when other-than-temporary declines exist. We incurred no impairment of cost method investments in fiscal year 2022, 2021 or 2020. There can be no assurance that our cost method investments will not be impaired at any time in the future.

Defined Benefit Pension Plan

We make contributions to one qualified multiemployer defined benefit pension plan ("Pension Plan"). The Pension Plan provides retirement benefits to participants based on their service. We do not administer this plan. The Pension Plan's benefit formula is based on credited years of service and hours worked as defined in the Pension Plan document. Our pension contributions are made in accordance with funding standards established by the Employee Retirement Income Security Act of 1974 and the Internal Revenue Code, as amended by the Pension Protection Act of 2006. The Pension Plan's assets have been invested as determined by the Pension Plan's fiduciaries in accordance with the Pension Plan's investment policy. The Pension Plan's asset allocation is based on the Pension Plan's investment policy and is reviewed as deemed necessary. See Note 16, *Employee Benefit Plans* for disclosure about the Pension Plan.

Stock-Based Compensation

Our equity awards granted generally consist of stock options, restricted stock, restricted stock units and market-based performance stock units. The fair value of each stock option grant is estimated using a Black-Scholes option-pricing model. The fair value of restricted stock and restricted stock unit grants is at a price equal to the fair market value of our Class A common stock at the date of grant. Compensation expense associated with our stock options, restricted stock and restricted stock units is recognized as expense in general and administration expense over the employee's requisite service period. The fair value of market-based performance stock unit grants is valued using a Monte Carlo pricing model and compensation expense is recognized as expense in general and administration expense ratably over the performance period based on our estimated achievement of the established performance criteria. For purposes of calculating stock-based compensation expense, forfeitures are accounted for as they occur. See Note 14, *Stockholders' Equity* for disclosure about stock-based compensation.

Earnings per Share

Basic earnings per share is computed by dividing net income by the weighted average number of common shares outstanding during the period. Diluted earnings per share is computed by dividing net income by the combined weighted average number of common shares outstanding during the period and potentially dilutive shares. Dilutive shares include the assumed exercise of employee stock options, unvested restricted stock, unvested restricted stock units and unvested market-based performance stock units based on the expected achievement of performance targets. In computing diluted earnings per share, we utilize the treasury stock method. See Note 19, *Earnings Per Share* for disclosure about the calculation of earnings per share.

Subsequent Events

We have evaluated subsequent events or transactions that have occurred after the consolidated balance sheet date of December 31, 2022 through the date of this filing of the consolidated financial statements with the SEC on this Annual Report on Form 10-K. Except as disclosed, no material subsequent events have occurred since December 31, 2022 through the date of this filing that would require recognition or disclosure in our consolidated financial statements.

4. REVENUE RECOGNITION

We disaggregate our revenues by applicable service line as follows: collection, landfill, transfer, transportation, landfill gas-to-energy, processing and Customer Solutions.

Collection

Collection revenues are principally generated by providing waste collection and disposal services to our customers. Services may be provided as needed or as scheduled. We derive a substantial portion of our collection revenues from commercial, industrial and municipal services that are generally performed under service agreements or pursuant to contracts with municipalities. The majority of our residential collection services are performed on a subscription basis with individual property owners or occupants.

Landfill

Landfill disposal services primarily consist of receiving some form of acceptable solid waste materials at one of our landfills and appropriately disposing of it. Landfill customers are typically charged a tipping fee on a per ton basis for disposing of their solid waste at our disposal facilities. In general, these fees are variable in nature.

Transfer station

Transfer station disposal services primarily consist of receiving some form of acceptable solid waste materials at one of our transfer stations and appropriately disposing of it by transporting it to an appropriate disposal site. Transfer station customers are charged a tipping fee on a per ton basis for disposing of their solid waste at our transfer stations. In general, these fees are variable in nature.

Transportation

Transportation services consist of the transportation of large volumes of waste or recycled materials from a customer designated location to another location or disposal facility. Transportation customers are charged a fee on a per ton basis for transporting and/or disposal of the materials. In general, these fees are variable in nature.

Landfill gas-to-energy

Landfill gas-to-energy services primarily consist of the generation and sale of electricity from landfill gas-to-energy facilities located at certain of our landfills; the reservation of electric generating capacity to be used by a customer on demand; and the sale of RECs.

Processing

Processing services consist of the receipt of recycled, sludge or other organic materials at one of our materials recovery, processing or disposal facilities, where it is then sorted, mixed and/or processed, and then disposed of or sold. Revenues from processing services are derived from customers in the form of processing fees, tipping fees, and commodity sales, primarily comprised of newspaper, corrugated containers, plastics, ferrous and aluminum, and organic materials such as our earthlife® soils products including fertilizers, composts and mulches.

Customer Solutions

Revenues from our Customer Solutions business are derived from brokerage services and overall resource management services providing a wide range of environmental services and resource management solutions to large and complex organizations, as well as traditional collection, disposal and recycling services provided to large account multi-site customers. In brokerage arrangements, we act as an agent that facilitates the sale of recyclable materials between an inbound customer and an outbound customer. Revenues from the brokerage of recycled materials are recognized on a net basis at the time of shipment. In general, these fees are variable in nature.

A table of revenues disaggregated by service line and timing of revenue recognition by operating segment follows:

Fiscal Year Ended December 31, 2022

	Eastern	Western	Resource Solutions	Total Revenues
Collection	\$ 233,043	\$ 306,544	\$ —	\$ 539,587
Landfill	27,301	70,241	—	97,542
Transfer	65,800	44,762	—	110,562
Transportation	5,619	14,248	—	19,867
Landfill gas-to-energy	925	6,594	—	7,519
Processing	7,370	2,764	119,045	129,179
Customer Solutions	—	—	180,833	180,833
Total revenues	<u>\$ 340,058</u>	<u>\$ 445,153</u>	<u>\$ 299,878</u>	<u>\$ 1,085,089</u>
Transferred at a point-in-time	\$ 462	\$ 2,138	\$ 52,735	\$ 55,335
Transferred over time	339,596	443,015	247,143	1,029,754
Total revenues	<u>\$ 340,058</u>	<u>\$ 445,153</u>	<u>\$ 299,878</u>	<u>\$ 1,085,089</u>

Fiscal Year Ended December 31, 2021

	Eastern	Western	Resource Solutions	Total Revenues
Collection	\$ 175,816	\$ 266,869	\$ —	\$ 442,685
Landfill	25,241	66,732	—	91,973
Transfer	53,882	37,400	—	91,282
Transportation	1,683	12,047	—	13,730
Landfill gas-to-energy	1,052	4,086	—	5,138
Processing	6,895	2,386	93,323	102,604
Customer Solutions	—	—	141,799	141,799
Total revenues	<u>\$ 264,569</u>	<u>\$ 389,520</u>	<u>\$ 235,122</u>	<u>\$ 889,211</u>
Transferred at a point-in-time	\$ 166	\$ 1,719	\$ 63,666	\$ 65,551
Transferred over time	264,403	387,801	171,456	823,660
Total revenues	<u>\$ 264,569</u>	<u>\$ 389,520</u>	<u>\$ 235,122</u>	<u>\$ 889,211</u>

Fiscal Year Ended December 31, 2020

	Eastern	Western	Resource Solutions	Total Revenues
Collection	\$ 147,698	\$ 243,740	\$ —	\$ 391,438
Landfill	20,716	64,833	—	85,549
Transfer	44,730	34,117	—	78,847
Transportation	208	10,942	—	11,150
Landfill gas-to-energy	1,015	3,057	—	4,072
Processing	5,918	1,300	62,539	69,757
Customer Solutions	—	—	133,771	133,771
Total revenues	<u>\$ 220,285</u>	<u>\$ 357,989</u>	<u>\$ 196,310</u>	<u>\$ 774,584</u>
Transferred at a point-in-time	\$ 223	\$ 1,484	\$ 29,621	\$ 31,328
Transferred over time	220,062	356,505	166,689	743,256
Total revenues	<u>\$ 220,285</u>	<u>\$ 357,989</u>	<u>\$ 196,310</u>	<u>\$ 774,584</u>

5. BUSINESS COMBINATIONS

In fiscal year 2022, we acquired fourteen businesses primarily related to our solid-waste operations, including, among others, solid-waste collection, recycling, transfer station and transportation businesses.

In fiscal year 2021, we acquired ten businesses primarily related to our solid-waste operations, including, among others, solid-waste collection and transfer station businesses and a residential, commercial and roll-off collection business in eastern Connecticut that operates a rail-served construction and demolition processing and waste transfer facility, a waste transfer station, a single-stream recycling facility, and several other recycling operations whose assets and liabilities are allocated between our Eastern region and Resource Solutions operating segments.

In fiscal year 2020, we acquired ten businesses primarily related to our solid-waste operations, including solid-waste collection, recycling and transportation businesses.

The operating results of these businesses are included in the accompanying audited consolidated statements of operations from each date of acquisition, and the purchase price has been allocated to the net assets acquired based on fair values at each date of acquisition with the residual amounts recorded as goodwill. Purchase price allocations are based on information existing at the acquisition dates or upon closing the transactions, including contingent consideration. See Note 15, *Fair Value of Financial Instruments* for further disclosure about contingent consideration. Acquired intangible assets other than goodwill that are subject to amortization include customer relationships, trade names and covenants not-to-compete. These are amortized over a two to ten-year period from the date of acquisition. All amounts recorded to goodwill in fiscal years 2022 and 2021 are expected to be deductible for tax purposes.

A summary of the purchase price paid and the purchase price allocation for acquisitions follows:

	Fiscal Year Ended December 31,		
	2022	2021	2020
Purchase Price:			
Cash used in acquisitions, net of cash acquired	\$ 76,573	\$ 166,489	\$ 28,990
Other non-cash consideration	1,275	—	—
Holdbacks to sellers and contingent consideration	4,840	5,194	4,490
Total consideration	82,688	171,683	33,480
Allocated as follows:			
Current assets	7,644	7,218	181
Property, plant and equipment:			
Land	3,141	1,321	680
Finance lease right-of-use-assets	—	31,467	—
Buildings and improvements	8,576	11,046	2,123
Machinery and Equipment	11,689	46,396	13,493
Operating lease right-of-use assets	405	6,500	—
Intangible assets:			
Trade names	55	8,350	—
Covenants not-to-compete	2,424	1,807	742
Customer relationships	12,224	36,195	7,663
Other non-current assets	40	—	—
Current liabilities	(3,812)	(6,014)	(484)
Other long-term liabilities	(123)	—	—
Financing lease liabilities, less current portion	—	(10,535)	—
Operating lease liabilities, less current portion	(282)	—	—
Fair value of assets acquired and liabilities assumed	41,981	133,751	24,398
Excess purchase price to be allocated to goodwill	\$ 40,707	\$ 37,932	\$ 9,082

Certain purchase price allocations are preliminary and are based on information existing at the acquisition dates or upon closing the transaction. Accordingly, the purchase price allocations are subject to change.

Unaudited pro forma combined information that shows our operational results as though each acquisition completed since the beginning of the prior fiscal year had occurred as of January 1, 2020 is as follows.

	Fiscal Year Ended December 31,		
	2022	2021	2020
Revenues	\$ 1,100,238	\$ 991,417	\$ 922,902
Operating income	\$ 96,779	\$ 82,223	\$ 63,768
Net income	\$ 53,354	\$ 37,449	\$ 84,549
Basic earnings per share attributable to common stockholders:			
Basic weighted average shares outstanding	51,623	51,312	48,793
Basic earnings per common share	<u>\$ 1.03</u>	<u>\$ 0.73</u>	<u>\$ 1.73</u>
Diluted earnings per share attributable to common stockholders:			
Diluted weighted average shares outstanding	51,767	51,515	49,045
Diluted earnings per common share	<u>\$ 1.03</u>	<u>\$ 0.73</u>	<u>\$ 1.72</u>

The unaudited pro forma results set forth in the table above have been prepared for comparative purposes only and are not necessarily indicative of the actual results of operations had the acquisitions taken place as of January 1, 2020 or the results of our future operations. Furthermore, the unaudited pro forma results do not give effect to all cost savings or incremental costs that may occur as a result of the integration and consolidation of the completed acquisitions.

6. ACCOUNTS RECEIVABLE, NET OF ALLOWANCE FOR CREDIT LOSSES

A summary of the changes to allowance for credit losses follows:

	Fiscal Year Ended December 31,		
	2022	2021	2020
Balance at beginning of period	\$ 3,276	\$ 2,333	\$ 1,468
Cumulative effect of new accounting principle	—	—	189
Additions - charged to expense	1,893	1,896	1,971
Deductions - bad debts written off, net of recoveries	(2,153)	(953)	(1,295)
Balance at end of period	<u>\$ 3,016</u>	<u>\$ 3,276</u>	<u>\$ 2,333</u>

7. PROPERTY, PLANT AND EQUIPMENT

A summary of property, plant and equipment is as follows:

	December 31,	
	2022	2021
Land	\$ 37,321	\$ 34,118
Landfills	730,914	677,023
Finance lease right-of-use assets	90,362	78,851
Buildings and improvements	209,234	187,810
Machinery and equipment	243,359	207,305
Rolling stock	276,282	252,642
Containers	197,834	179,949
	1,785,306	1,617,698
Less: accumulated depreciation and amortization	(1,064,756)	(973,094)
	<u>\$ 720,550</u>	<u>\$ 644,604</u>

Depreciation expense for fiscal years 2022, 2021 and 2020 was \$78,139, \$62,342 and \$54,370, respectively. Landfill amortization expense for fiscal years 2022, 2021 and 2020 was \$31,619, \$30,295 and \$27,520, respectively.

8. LEASES

A schedule of lease costs and other lease information follows:

	Fiscal Year Ended December 31, 2022	Fiscal Year Ended December 31, 2021
Lease cost:		
Amortization of right-of-use assets	\$ 6,339	\$ 5,118
Interest expense	1,638	1,446
Fixed lease cost - vehicles, equipment and property	5,130	5,562
Fixed lease cost - landfill operating leases	8,674	8,265
Fixed lease cost	13,804	13,827
Short-term lease cost	3,884	3,525
Variable lease cost	522	477
Total lease cost	<u>\$ 26,187</u>	<u>\$ 24,393</u>

Other information:

Cash paid for amounts included in the measurement of lease liabilities:

Financing cash flows for finance leases	\$ 7,847	\$ 6,534
Operating cash flows for operating leases	\$ 10,009	\$ 10,609
Right-of-use assets obtained in exchange for new finance lease liabilities	\$ 11,919	\$ 20,753
Right-of-use assets obtained in exchange for new operating lease liabilities	\$ 9,835	\$ 3,827

December 31, 2022

Weighted-average remaining lease term - finance leases (years)	5.5
Weighted-average remaining lease term - operating leases (years)	9.6
Weighted-average discount rate - finance leases	3.6 %
Weighted-average discount rate - operating leases	4.4 %

Estimated minimum future lease obligations as of December 31, 2022 for each of the next five fiscal years and thereafter are as follows:

	Operating Leases	Finance Leases
Fiscal year ending December 31, 2023	\$ 9,672	\$ 10,068
Fiscal year ending December 31, 2024	8,845	10,313
Fiscal year ending December 31, 2025	9,324	10,153
Fiscal year ending December 31, 2026	8,567	9,601
Fiscal year ending December 31, 2027	11,070	5,620
Thereafter	32,643	10,367
Total lease payments	80,121	56,122
Less: interest expense	(15,776)	(6,309)
Lease liability balance	<u>\$ 64,345</u>	<u>\$ 49,813</u>

9. GOODWILL AND INTANGIBLE ASSETS

A summary of the activity and balances related to goodwill by reportable operating segment is as follows:

	December 31, 2021	Acquisitions	Measurement Period Adjustments	December 31, 2022
Eastern	\$ 52,072	\$ 93	\$ 241	\$ 52,406
Western	163,728	18,908	650	183,286
Resource Solutions	17,060	21,706	—	38,766
Total	\$ 232,860	\$ 40,707	\$ 891	\$ 274,458

	December 31, 2020	Acquisitions	Measurement Period Adjustments	December 31, 2021
Eastern	\$ 30,873	\$ 21,199	\$ —	\$ 52,072
Western	149,984	13,717	27	163,728
Resource Solutions	14,044	3,016	—	17,060
Total	\$ 194,901	\$ 37,932	\$ 27	\$ 232,860

A summary of intangible assets is as follows:

	Covenants Not-to-Compete	Customer Relationships	Trade Names	Total
Balance, December 31, 2022				
Intangible assets	\$ 31,201	\$ 127,179	\$ 8,405	\$ 166,785
Less accumulated amortization	(24,129)	(46,162)	(4,711)	(75,002)
	\$ 7,072	\$ 81,017	\$ 3,694	\$ 91,783

	Covenants Not-to-Compete	Customer Relationships	Trade Names	Total
Balance, December 31, 2021				
Intangible assets	\$ 28,777	\$ 115,005	\$ 8,350	\$ 152,132
Less accumulated amortization	(22,148)	(34,809)	(1,452)	(58,409)
	\$ 6,629	\$ 80,196	\$ 6,898	\$ 93,723

Intangible amortization expense for fiscal years 2022, 2021 and 2020 was \$16,593, \$10,953 and \$8,893, respectively.

Based on the amortizable intangible assets recorded in the consolidated balance sheets at December 31, 2022, intangible amortization expense for each of the next five fiscal years and thereafter is estimated as follows:

Fiscal year ending December 31, 2023	\$ 16,137
Fiscal year ending December 31, 2024	\$ 15,468
Fiscal year ending December 31, 2025	\$ 14,427
Fiscal year ending December 31, 2026	\$ 12,744
Fiscal year ending December 31, 2027	\$ 11,266
Thereafter	\$ 21,741

10. FINAL CAPPING, CLOSURE AND POST-CLOSURE COSTS

Accrued final capping, closure and post-closure costs include the current and non-current portion of costs associated with obligations for final capping closure and post-closure of our landfills. We estimate our future final capping, closure and post-closure costs in order to determine the final capping, closure and post-closure expense per ton of waste placed into each landfill as further described in Note 3, *Summary of Significant Accounting Policies*. The anticipated time frame for paying these costs varies based on the remaining useful life of each landfill, as well as the duration of the post-closure monitoring period.

The changes to accrued final capping, closure and post-closure liabilities are as follows:

	Fiscal Year Ended December 31,	
	2022	2021
Beginning balance	\$ 86,914	\$ 82,533
Obligations incurred	4,857	5,408
Revisions in estimates (1)	18,415	(836)
Accretion expense	7,565	6,775
Obligations settled (2)	(4,073)	(6,966)
Ending balance	<u>\$ 113,678</u>	<u>\$ 86,914</u>

(1) Relates to changes in estimates and assumptions concerning anticipated waste flow, costs, including as a result of higher inflation, and timing of future final capping, closure and post-closure activities at our landfills.

(2) May include amounts paid and amounts that are being processed through accounts payable as a part of our disbursement cycle.

11. OTHER ACCRUED LIABILITIES

Other accrued liabilities, classified as current liabilities, at December 31, 2022 and 2021 are as follows:

	December 31,	
	2022	2021
Accrued capital expenditures	\$ 10,842	\$ 6,534
Other accrued liabilities	35,395	29,794
Total	<u>\$ 46,237</u>	<u>\$ 36,328</u>

12. DEBT

A summary of debt is as follows:

	December 31,	
	2022	2021
Senior Secured Credit Facility:		
Term Loan A Facility ("Term Loan Facility") due December 2026; bore interest at LIBOR plus 1.125%	\$ 350,000	\$ 350,000
Revolving Credit Facility ("Revolving Credit Facility") due December 2026; bore interest at LIBOR plus 1.125%	6,000	—
Tax-Exempt Bonds:		
New York State Environmental Facilities Corporation Solid Waste Disposal Revenue Bonds Series 2014 ("New York Bonds 2014R-1") due December 2044 - fixed rate interest period through 2029; bearing interest at 2.875%	25,000	25,000
New York State Environmental Facilities Corporation Solid Waste Disposal Revenue Bonds Series 2014R-2 ("New York Bonds 2014R-2") due December 2044 - fixed rate interest period through 2026; bearing interest at 3.125%	15,000	15,000
New York State Environmental Facilities Corporation Solid Waste Disposal Revenue Bonds Series 2020 ("New York Bonds 2020") due September 2050 - fixed rate interest period through 2025; bearing interest at 2.750%	40,000	40,000
Finance Authority of Maine Solid Waste Disposal Revenue Bonds Series 2005R-3 ("FAME Bonds 2005R-3") due January 2025 - fixed rate interest period through 2025; bearing interest at 5.25%	25,000	25,000
Finance Authority of Maine Solid Waste Disposal Revenue Bonds Series 2015R-1 ("FAME Bonds 2015R-1") due August 2035 - fixed rate interest period through 2025; bearing interest at 5.125%	15,000	15,000
Finance Authority of Maine Solid Waste Disposal Revenue Bonds Series 2015R-2 ("FAME Bonds 2015R-2") due August 2035 - fixed rate interest period through 2025; bearing interest at 4.375%	15,000	15,000
Vermont Economic Development Authority Solid Waste Disposal Long-Term Revenue Bonds Series 2013 ("Vermont Bonds 2013") due April 2036 - fixed rate interest period through 2028; bearing interest at 4.625%	16,000	16,000
Vermont Economic Development Authority Solid Waste Disposal Long-Term Revenue Bonds Series 2022A-1 ("Vermont Bonds 2022A-1") due June 2052 - fixed rate interest period through 2027; bearing interest at 5.00%	35,000	—
Business Finance Authority of the State of New Hampshire Solid Waste Disposal Revenue Bonds Series 2013 ("New Hampshire Bonds") due April 2029 - fixed rate interest period through 2029; bearing interest at 2.95%	11,000	11,000
Other:		
Finance leases maturing through December 2107; bearing interest at a weighted average of 3.6%	49,813	45,724
Notes payable maturing through August 2024; bearing interest at a weighted average of 1.7%	664	4,846
Principal amount of debt	603,477	562,570
Less—unamortized debt issuance costs (1)	9,494	10,166
Debt less unamortized debt issuance costs	593,983	552,404
Less—current maturities of debt	8,968	9,901
	<u>\$ 585,015</u>	<u>\$ 542,503</u>

(1) A summary of unamortized debt issuance costs by debt instrument follows:

	December 31,	
	2022	2021
Revolving Credit Facility and Term Loan Facility (collectively, the "Credit Facility")	\$ 4,716	\$ 5,884
New York Bonds 2014R-1	866	933
New York Bonds 2014R-2	207	268
New York Bonds 2020	1,106	1,283
FAME Bonds 2005R-3	176	262
FAME Bonds 2015R-1	344	413
FAME Bonds 2015R-2	193	268
Vermont Bonds 2013	378	433
Vermont Bonds 2022A-1	1,144	—
New Hampshire Bonds	364	422
	<u>\$ 9,494</u>	<u>\$ 10,166</u>

Credit Facility

As of December 31, 2022, we are party to an amended and restated credit agreement ("Credit Agreement"), which provides for a \$350,000 aggregate principal amount Term Loan Facility and a \$300,000 Revolving Credit Facility, with a \$75,000 sublimit for letters of credit. We have the right to request, at our discretion, an increase in the amount of loans under the Credit Facility by an aggregate amount of \$125,000, subject to the terms and conditions set forth in the Credit Agreement. The Credit Facility has a 5-year term that matures in December 2026 and as of December 31, 2022 bore interest at a rate of LIBOR plus 1.125% based upon us reaching a consolidated net leverage ratio of less than 2.25x. The Credit Facility is guaranteed jointly and severally, fully and unconditionally by all of our significant wholly-owned subsidiaries and secured by substantially all of our assets. As of December 31, 2022, further advances were available under the Credit Facility in the amount of \$266,085. The available amount is net of outstanding irrevocable letters of credit totaling \$27,915, and as of December 31, 2022 no amount had been drawn.

On February 9, 2023, we entered into first and second amendments to our amended and restated Credit Agreement (as amended, the "Amended and Restated Credit Agreement"). The first amendment provides, commencing in the fiscal year ending December 31, 2024, the interest rate margin applied for drawn and undrawn amounts under the Amended and Restated Credit Agreement shall be separately adjusted based on our achievement of certain thresholds and targets on two sustainability related key performance indicator metrics during the fiscal year ending December 31, 2023 ("fiscal year 2023"): i) metric tons of solid waste materials reduced, reused or recycled through our direct operations or with third-parties in collaboration with customers; and ii) our total recordable incident rate. The second amendment provides, effective for fiscal year 2023, that loans under the Amended and Restated Credit Agreement shall bear interest, at our election, at the term secured overnight financing rate, including a secured overnight financing rate adjustment of 10 basis points ("Term SOFR"), or a base rate, in each case, plus an applicable interest rate margin based on consolidated net leverage ratio, and plus or minus any sustainability rate adjustment. Unless loans are made as or converted to base rate loans, loans under the Amended and Restated Credit Agreement shall bear interest at Term SOFR, plus a margin based upon our consolidated net leverage ratio in the range of 1.125% to 2.125% per annum, plus a sustainability adjustment of up to positive or negative 4 basis point per annum, and a commitment fee on undrawn amounts will be charged on undrawn amounts at a rate of Term SOFR, plus a margin based upon our consolidated net leverage ratio in the range of 0.20% to 0.40% per annum, plus a sustainability adjustment of up to positive or negative 1 basis points per annum. We shall also pay a fronting fee for each letter of credit of 0.25% per annum. Interest under the Amended and Restated Credit Agreement shall be subject to increase by 2.00% per annum during the continuance of a payment default and may be subject to increase by 2.00% per annum during the continuance of any other event of default.

The Credit Agreement required and the Amended and Restated Credit Agreement requires us to maintain a minimum interest coverage ratio and a maximum consolidated net leverage ratio, to be measured at the end of each fiscal quarter. In addition to these financial covenants, the Credit Agreement contained and the Amended and Restated Credit Agreement contains a number of important customary affirmative and negative covenants which restrict, among other things, our ability to sell assets, incur additional debt, create liens, make investments, and pay dividends. As of December 31, 2022, we were in compliance with the covenants contained in the Credit Agreement. An event of default under any of our debt agreements could permit some of our lenders, including the lenders under the Credit Facility, to declare all amounts borrowed from them to be immediately due and payable, together with accrued and unpaid interest, or, in the case of the Credit Facility, terminate the commitment to make further credit extensions thereunder, which could, in turn, trigger cross-defaults under other debt obligations. If we were unable to repay debt to our lenders or were otherwise in default under any provision governing our outstanding debt obligations, our secured lenders could proceed against us and against the collateral securing that debt.

Tax-Exempt Financings

New York Bonds. In fiscal year 2020, we completed the issuance of \$40,000 aggregate principal amount of New York Bonds 2020. The New York Bonds 2020, which are unsecured and guaranteed jointly and severally, fully and unconditionally by all of our significant wholly-owned subsidiaries, accrue interest at 2.75% per annum from September 2, 2020 through September 1, 2025, at which time they may be converted to a variable interest rate period or to a new term interest rate period. The New York Bonds 2020 mature on September 1, 2050. We borrowed the proceeds of the New York Bonds 2020 to finance or refinance certain capital projects in the state of New York.

As of December 31, 2022, we had outstanding \$25,000 aggregate principal amount of New York Bonds 2014R-1 and \$15,000 aggregate principal amount of New York Bonds 2014R-2 issued by the New York State Environmental Facilities Corporation under the indenture dated December 1, 2014 (collectively, the "New York Bonds 2014"), and \$40,000 aggregate principal amount of New York Bonds 2020. The New York Bonds 2014R-1 accrue interest at 2.875% per annum through December 2, 2029, at which time they may be converted from a fixed rate to a variable rate. The New York Bonds 2014R-2 accrue interest at 3.125% per annum through May 31, 2026, at which time they may be converted from a fixed rate to a variable rate. The New York Bonds 2014, which are unsecured and guaranteed jointly and severally, fully and unconditionally by all of our significant wholly-owned subsidiaries, require interest payments on June 1 and December 1 of each year and mature on December 1, 2044. We borrowed the proceeds of the New York Bonds 2014 to finance or refinance certain capital projects in the state of New York.

Maine Bonds. As of December 31, 2022, we had outstanding \$25,000 aggregate principal amount of FAME Bonds 2005R-3, \$15,000 aggregate principal amount of FAME Bonds 2015R-1, and \$15,000 aggregate principal amount of FAME Bonds 2015R-2 (collectively, the "FAME Bonds"). The FAME Bonds 2005R-3 accrue interest at 5.25% per annum, and interest is payable semiannually on February 1 and August 1 of each year until such bonds mature on January 1, 2025. The FAME Bonds 2015R-1 accrue interest at 5.125% per annum through August 1, 2025, at which time they may be converted from a fixed to a variable rate, and interest is payable semiannually on February 1 and August 1 of each year until the FAME Bonds 2015R-1 mature on August 1, 2035. The FAME Bonds 2015R-2 accrue interest at 4.375% per annum through July 31, 2025, at which time they may be converted from a fixed to a variable rate, and interest is payable semiannually on May 1 and November 1 of each year until the FAME Bonds 2015R-2 mature on August 1, 2035. The FAME Bonds are unsecured and guaranteed jointly and severally, fully and unconditionally by all of our significant wholly-owned subsidiaries. We borrowed the proceeds of the offering of the FAME Bonds to finance or refinance the costs of certain of our solid waste landfill facilities and solid waste collection, organics and transfer, recycling and hauling facilities in the state of Maine.

Vermont Bonds. In fiscal year 2022, we completed the issuance of \$35,000 aggregate principal amount of Vermont Bonds 2022A-1. The Vermont Bonds 2022A-1, which are unsecured and guaranteed jointly and severally, fully and unconditionally by all of our significant wholly-owned subsidiaries, accrue interest at 5.00% per annum from June 1, 2022 through May 31, 2027, at which time they may be converted to a variable interest rate period or to a new term interest rate period. The Vermont Bonds 2022A-1 mature on June 1, 2052. We borrowed and used the proceeds from the Vermont Bonds 2022A-1 to finance or reimburse certain noncurrent asset costs associated with capital projects in the state of Vermont.

As of December 31, 2022, we had outstanding \$35,000 aggregate principal amount of Vermont Bonds 2022A-1 and \$16,000 aggregate principal amount of Vermont Bonds 2013. The Vermont Bonds 2013, which are guaranteed jointly and severally, fully and unconditionally by all of our significant wholly-owned subsidiaries, accrue interest at 4.625% per annum through April 2, 2028, after which time there is a mandatory tender, and interest is payable semiannually on May 1 and November 1 of each year. The Vermont Bonds 2013 mature on April 1, 2036. We borrowed the proceeds of the Vermont Bonds 2013 to finance or refinance certain qualifying property, plant and equipment assets purchased in the state of Vermont.

New Hampshire Bonds. As of December 31, 2022, we had outstanding \$11,000 aggregate principal amount of New Hampshire Bonds. The New Hampshire Bonds, which are guaranteed jointly and severally, fully and unconditionally by all of our significant wholly-owned subsidiaries, accrue interest at 2.95% per annum through maturity on April 1, 2029 and interest is payable on April 1 and October 1 of each year. During the fixed interest rate period, the New Hampshire Bonds are not supported by a letter of credit. We borrowed the proceeds of the New Hampshire Bonds to finance or refinance certain qualifying property, plant and equipment assets purchased in the state of New Hampshire.

Interest Expense

The components of interest expense are as follows:

	Fiscal Year Ended December 31,		
	2022	2021	2020
Interest expense on long-term debt and finance leases	\$ 21,691	\$ 19,201	\$ 20,084
Amortization of debt issuance costs	1,903	2,288	2,169
Letter of credit fees	458	458	531
Less: capitalized interest	(330)	(718)	(413)
Total interest expense	<u>\$ 23,722</u>	<u>\$ 21,229</u>	<u>\$ 22,371</u>

Cash Flow Hedges

Our strategy to reduce exposure to interest rate risk involves entering into interest rate derivative agreements to hedge against adverse movements in interest rates related to the variable rate portion of our long-term debt. We have designated these derivative instruments as highly effective cash flow hedges, and therefore the change in fair value is recorded in our stockholders' equity as a component of accumulated other comprehensive income (loss), net and included in interest expense at the same time as interest expense is affected by the hedged transactions. Differences paid or received over the life of the agreements are recorded as additions to or reductions of interest expense on the underlying debt and included in cash flows from operating activities.

As of December 31, 2022 and December 31, 2021, our active interest rate derivative agreements had a total notional amount of \$190,000 and \$195,000, respectively. According to the terms of the agreements, we receive interest based on the 1-month LIBOR index, in some instances restricted by a 0.0% floor, and pay interest at a weighted average rate of approximately 2.20%. The agreements mature between May 2023 and June 2027.

As of December 31, 2022, we have a forward starting interest rate derivative agreement with a total notional amount of \$20,000. According to the terms of this agreement, we will receive interest based on the 1-month LIBOR index, restricted by a 0.0% floor, and will pay interest at a rate of 1.29%. The agreement matures in May 2028. As of December 31, 2021, we had forward starting interest rate derivative agreements with a total notional amount of \$85,000 outstanding.

A summary of the effect of cash flow hedges related to derivative instruments on the consolidated balance sheets follows:

		Fair Value	
		December 31, 2022	December 31, 2021
Balance Sheet Location			
Interest rate swaps	Other current assets	\$ 4,345	\$ —
Interest rate swaps	Other non-current assets	7,461	424
Total		\$ 11,806	\$ 424
Interest rate swaps	Other accrued liabilities	\$ —	\$ 3,796
Interest rate swaps	Other long-term liabilities	—	1,380
Total		\$ —	\$ 5,176
Interest rate swaps	Accumulated other comprehensive income (loss), net	\$ 11,806	\$ (4,935)
Interest rate swaps - tax benefit	Accumulated other comprehensive income (loss), net	(4,264)	(168)
		\$ 7,542	\$ (5,103)

Fair Value of Debt

As of December 31, 2022, the fair value of our fixed rate debt, including the FAME Bonds, Vermont Bonds 2022A-1, Vermont Bonds 2013, New York Bonds 2020, New York Bonds 2014 and New Hampshire Bonds was approximately \$188,136 and the carrying value was \$197,000. The fair value of the FAME Bonds, Vermont Bonds 2022A-1, Vermont Bonds 2013, New York Bonds 2020, New York Bonds 2014 and New Hampshire Bonds is considered to be Level 2 within the fair value hierarchy as the fair value is determined using market approach pricing provided by a third-party that utilizes pricing models and pricing systems, mathematical tools and judgment to determine the evaluated price for the security based on the market information of each of the bonds or securities with similar characteristics.

As of December 31, 2022, the carrying value of our Term Loan Facility was \$350,000 and the carrying value of our Revolving Credit Facility was \$6,000. Their fair values are based on current borrowing rates for similar types of borrowing arrangements, or Level 2 inputs, and approximate their carrying values.

Although we have determined the estimated fair value amounts of the FAME Bonds, Vermont Bonds 2022A-1, Vermont Bonds 2013, New York Bonds 2020, New York Bonds 2014 and New Hampshire Bonds using available market information and commonly accepted valuation methodologies, a change in available market information, and/or the use of different assumptions and/or estimation methodologies could have a material effect on the estimated fair values. These amounts have not been revalued, and current estimates of fair value could differ significantly from the amounts presented.

Future Maturities of Debt

Aggregate principal maturities of debt as of December 31, 2022 for each of the next five fiscal years and thereafter are as follows:

Fiscal year ending December 31, 2023	\$ 8,968
Fiscal year ending December 31, 2024	12,691
Fiscal year ending December 31, 2025	43,324
Fiscal year ending December 31, 2026	352,410
Fiscal year ending December 31, 2027	5,249
Thereafter	180,835
	\$ 603,477

13. COMMITMENTS AND CONTINGENCIES

In the ordinary course of our business and as a result of the extensive governmental regulation of the solid waste industry, we are subject to various judicial and administrative proceedings involving state and local agencies. In these proceedings, an agency may seek to impose fines or to revoke or deny renewal of an operating permit held by us. From time to time, we may also be subject to actions brought by special interest or other groups, adjacent landowners or residents in connection with the

permitting and licensing of landfills and transfer stations, or allegations of environmental damage or violations of the permits and licenses pursuant to which we operate. In addition, we may be named defendants in various claims and suits pending for alleged damages to persons and property, alleged violations of certain laws and alleged liabilities arising out of matters occurring during the ordinary operation of a waste management business. The plaintiffs in some actions seek unspecified damages or injunctive relief, or both. These actions fall within various procedural stages at any point in time, and some are covered in part by insurance.

In accordance with FASB ASC 450 - Contingencies, we accrue for legal proceedings, inclusive of legal costs, when losses become probable and reasonably estimable. We have recorded an aggregate accrual of \$821 relating to our outstanding legal proceedings as of December 31, 2022. As of the end of each applicable reporting period, we review each of our legal proceedings to determine whether it is probable, reasonably possible or remote that a liability has been incurred and, if it is at least reasonably possible, whether a range of loss can be reasonably estimated under the provisions of FASB ASC 450-20. In instances where we determine that a loss is probable and we can reasonably estimate a range of loss we may incur with respect to such a matter, we record an accrual for the amount within the range that constitutes our best estimate of the possible loss. If we are able to reasonably estimate a range, but no amount within the range appears to be a better estimate than any other, we record an accrual in the amount that is the low end of such range. When a loss is reasonably possible, but not probable, we will not record an accrual, but we will disclose our estimate of the possible range of loss where such estimate can be made in accordance with FASB ASC 450-20. We disclose outstanding matters that we believe could have a material adverse effect on our financial condition, results of operations or cash flows.

Legal Proceedings

North Country Environmental Services Expansion Permit

On October 9, 2020, our subsidiary, North Country Environmental Services, Inc. ("NCES"), received a Type I-A Permit Modification ("Permit") from the New Hampshire Department of Environmental Services ("DES") for Expansion in the Stage VI area of the NCES landfill located in Bethlehem, New Hampshire. On November 9, 2020, the Conservation Law Foundation ("CLF") filed an appeal of the Permit to the New Hampshire Waste Management Council ("Council") on the grounds it failed to meet the public benefit criteria. DES defended its decision in the appeal, and NCES also participated as the permittee seeking to defend its permit on appeal.

Throughout 2021 and early 2022 a number of motions were filed by both NCES and CLF with the Council and in February 2022 the Council held a hearing on the CLF appeal. The Council ruled in favor of NCES on all claims set forth in CLF's appeal. On May 11, 2022, the Council's Hearing Officer issued an Order denying all of CLF's arguments on appeal, with the exception of one: the Hearing Officer held that based on his interpretation of the relevant statute, the public benefit determination made by DES in issuing the Permit to NCES was unlawful (the "Hearing Officer's Order"). The Hearing Officer remanded the Permit to the DES with regard to this determination.

DES filed a Motion for Reconsideration on May 31, 2022, and NCES filed a Motion for Rehearing on June 10, 2022. The Hearing Officer denied both motions in separate orders dated November 3, 2022, issued contemporaneously with rulings on three other post-hearing motions. NCES filed a Motion for Rehearing of two of the three post-hearing motion rulings on December 5, 2023, this Motion remains pending.

DES and NCES have appealed the Hearing Officer's May 11, 2022 Order to the New Hampshire Supreme Court ("Supreme Court"). On December 23, 2022, CLF filed a Motion for Summary Affirmance of the Hearing Officer's Order, to which NCES and DES each filed an Objection on January 6, 2023. On January 30, 2023 the Supreme Court issued an Order accepting and consolidating the DES and NCES appeals and denying CLF's Motion for Summary Affirmance. On January 31, 2023, NCES filed a Motion to Stay the Supreme Court appeals pending the outcome of the Superior Court Open Meeting Law Proceeding discussed below.

On December 14, 2022, NCES filed an action against the Council in Merrimack Superior Court ("Superior Court") seeking to invalidate the Hearing Officer's Order as having been adopted in violation of New Hampshire's statute governing access to public records and meetings ("Open Meeting Law Proceeding"), in that the Council did not hold a public meeting to deliberate on the Hearing Officer's Order prior to issuance. The Council filed a Motion to Dismiss on January 17, 2023 to which NCES filed a Summary Objection on January 18, 2023, followed by a supplemental Objection filed on February 6, 2023. Following a hearing on the merits before the Superior Court on January 18, 2023, the Superior Court ordered that NCES pursue a stay of the appeal of the Hearing Officer's Order before the Supreme Court, and that the Superior Court would defer further ruling in the Open Meeting Law Proceeding pending a determination of whether the appeal before the Supreme Court will be stayed. On January 20, 2023, CLF filed a Motion to Intervene in the Open Meeting Law Proceeding. NCES filed an Objection on February 8, 2023. On February 9, 2023, CLF filed an Objection to the Motion to Stay.

On September 20, 2022, NCES and our subsidiary, Granite State Landfill, LLC ("GSL"), filed a Petition for Declaratory Judgment ("Petition") in the Superior Court seeking a determination of the meaning and constitutionality of New Hampshire's

public benefit requirement. The Petition asks the court to construe the same statute on which the Hearing Officer relied in the Hearing Officer's Order. On September 21, 2022, NCES filed a Motion to Stay the Council proceedings pending resolution of the Petition action. DES assented to the relief sought by that motion, and CLF filed an Objection to the Motion to Stay on September 26, 2022. On October 3, 2022, NCES filed a Motion for Leave to File Reply together with its Reply to CLF's Objection to Motion to Stay. The Hearing Officer denied the Motion to Stay by Order dated November 3, 2022. On December 19, 2022, CLF moved to intervene in the Petition proceeding before the Superior Court, and NCES filed an Objection on January 4, 2023. CLF filed a Reply on January 17, 2023, and NCES filed a Surreply January 27, 2023. CLF's intervention motion remains pending before the Superior Court. NCES will continue to vigorously defend the Permit through the appeal to the Supreme Court, litigation of the Petition, and litigation of the Open Meeting Law Proceeding.

Environmental Remediation Liabilities

We are subject to liability for environmental damage, including personal injury and property damage, that our solid waste, recycling and power generation facilities may cause to neighboring property owners, particularly as a result of the contamination of drinking water sources or soil, possibly including damage resulting from conditions that existed before we acquired the facilities. We may also be subject to liability for similar claims arising from off-site environmental contamination caused by pollutants or hazardous substances if we or our predecessors arrange or arranged to transport, treat or dispose of those materials.

We accrue for costs associated with environmental remediation obligations when such costs become both probable and reasonably estimable. Determining the method and ultimate cost of remediation requires that a number of assumptions be made. There can sometimes be a range of reasonable estimates of the costs associated with remediation of a site. In these cases, we use the amount within the range that constitutes our best estimate. In the early stages of the remediation process, particular components of the overall liability may not be reasonably estimable; in this instance we use the components of the liability that can be reasonably estimated as a surrogate for the liability. It is reasonably possible that we will need to adjust the liabilities recorded for remediation to reflect the effects of new or additional information, to the extent such information impacts the costs, timing or duration of the required actions. Future changes in our estimates of the cost, timing or duration of the required actions could have a material adverse effect on our consolidated financial position, results of operations and cash flows. We disclose outstanding environmental remediation matters that remain unsettled or are settled in the reporting period that we believe could have a material adverse effect on our financial condition, results of operations or cash flows.

We inflate the estimated costs in current dollars to the expected time of payment and discount the total cost to present value using a risk-free interest rate. The risk-free interest rates associated with our environmental remediation liabilities as of December 31, 2022 range between 1.5% and 4.1%. A summary of the changes to the aggregate environmental remediation liabilities for the twelve months ended December 31, 2022 and 2021 follows:

	Twelve Months Ended December 31,	
	2022	2021
Beginning balance	\$ 5,887	\$ 5,200
Accretion expense	104	109
Obligations incurred (1)	759	924
Obligations settled (2)	(415)	(346)
Ending balance	6,335	5,887
Less: current portion	814	353
Long-term portion	<u>\$ 5,521</u>	<u>\$ 5,534</u>

- (1) In fiscal year 2022, associated with the investigation of potential remediation at an inactive waste disposal site that adjoins one of the landfills that we operate. In fiscal year 2021, associated with a restoration project at one of our landfills.
- (2) May include amounts paid and amounts that are being processed through accounts payable as a part of our disbursement cycle.

The total expected environmental remediation payments, in today's dollars, as of December 31, 2022 for each of the next five fiscal years and thereafter are as follows:

Fiscal year ending December 31, 2023	\$	782
Fiscal year ending December 31, 2024		1,279
Fiscal year ending December 31, 2025		308
Fiscal year ending December 31, 2026		318
Fiscal year ending December 31, 2027		299
Thereafter		4,009
Total	\$	6,995

A reconciliation of the expected aggregate non-inflated, undiscounted environmental remediation liabilities to the amount recognized in our consolidated balance sheet at December 31, 2022 is as follows:

Undiscounted liability	\$	6,995
Less discount, net		(660)
Liability balance - December 31, 2022	\$	6,335

Any substantial liability incurred by us arising from environmental damage could have a material adverse effect on our business, financial condition and results of operations.

14. STOCKHOLDERS' EQUITY

Public Offering of Class A Common Stock

In fiscal year 2020, we completed a public offering of 2,703 shares of our Class A common stock at a public offering price of \$56.00 per share. The offering resulted in net proceeds to us of \$144,790, after deducting underwriting discounts, commissions and offering expenses. The net proceeds from the offering were used for general corporate purposes, including acquisitions or development of new operations or assets with the goal of complementing or expanding our business, and for working capital and capital expenditures.

Common Stock

The holders of the Class A common stock are entitled to one vote for each share held. The holders of the Class B common stock are entitled to ten votes for each share held, except for the election of one director, who is elected by the holders of the Class A common stock exclusively. The Class B common stock is convertible into Class A common stock on a share-for-share basis at the option of the shareholder.

Preferred Stock

We are authorized to issue up to 944 shares of preferred stock in one or more series. As of December 31, 2022 and December 31, 2021, we had no shares issued.

Stock Based Compensation

Stock Incentive Plans

2016 Incentive Plan. In the fiscal year ended December 31, 2016, we adopted the 2016 Incentive Plan ("2016 Plan"). Under the 2016 Plan, we may grant awards up to an aggregate amount of shares equal to the sum of: (i) 2,250 shares of Class A common stock (subject to adjustment in the event of stock splits and other similar events), plus (ii) such additional number of shares of Class A common stock (up to 2,723 shares) as is equal to the sum of the number of shares of Class A common stock that remained available for grant under the 2006 Stock Incentive Plan ("2006 Plan") immediately prior to the expiration of the 2006 Plan and the number of shares of Class A common stock subject to awards granted under the 2006 Plan that expire or otherwise result in shares not being issued.

As of December 31, 2022, there were 797 Class A common stock equivalents available for future grant under the 2016 Plan, inclusive of additional Class A common stock equivalents that were previously issued under terminated plans and have become available for grant because such awards expired or otherwise resulted in shares not being issued.

Our equity awards granted consist of stock options, restricted stock, restricted stock units and market-based performance stock units.

Stock options are granted at a price equal to the prevailing fair value of our Class A common stock at the date of grant. Generally, stock options granted have a term not to exceed ten years and vest over a one year to five year period from the date of grant.

The fair value of each stock option granted is estimated using a Black-Scholes option-pricing model, which requires extensive use of accounting judgment and financial estimation, including estimates of: the expected term, calculated based on the weighted average historical life of the vested stock options, giving consideration to vesting schedules and historical exercise patterns; the risk-free interest rate, based on the U.S. Treasury yield curve for the period of the expected life of the stock option; and the expected volatility, calculated using the weekly historical volatility of our Class A common stock over the expected life of the stock option.

Restricted stock and restricted stock units are granted at a price equal to the fair value of our Class A common stock at the date of grant. The fair value of each market-based performance stock unit is estimated using a Monte Carlo pricing model, which requires extensive use of accounting judgment and financial estimation, including the estimated share price appreciation plus the value of dividends of our Class A common stock as compared to the Russell 2000 Index over the requisite service period.

Restricted stock granted to non-employee directors vest incrementally over a three year period beginning on the first anniversary of the date of grant. Restricted stock units granted to non-employee directors vest in full on the first anniversary of the grant date. Restricted stock units vest incrementally over an identified service period beginning on the grant date based on continued employment. Market-based performance stock units vest at a future date following the grant date and are based on the attainment of performance targets and market achievements.

Stock Options

A summary of stock option activity is as follows:

	Stock Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (years)	Aggregate Intrinsic Value
Outstanding, December 31, 2021	77	\$ 15.68		
Granted	75	\$ 82.47		
Exercised	(23)	\$ 8.56		
Forfeited or expired	—	\$ —		
Outstanding, December 31, 2022	129	\$ 55.60	7.2	\$ 3,307
Exercisable, December 31, 2022	49	\$ 12.88	3.3	\$ 3,248

During fiscal years 2022, 2021 and 2020, stock-based compensation expense for stock options was \$248, \$28 and \$0, respectively.

During fiscal years 2022, 2021 and 2020, the aggregate intrinsic value of stock options exercised was \$1,467, \$1,238 and \$296, respectively.

As of December 31, 2022, we had \$2,098 of unrecognized stock-based compensation expense related to outstanding stock options to be recognized over a weighted average period of 4.4 years.

The fair value of stock options granted in fiscal year 2022 were calculated assuming no expected dividend yield using a weighted average expected life of 6.1 years, a risk-free interest rate of 2.7%, and an expected volatility of 30.5%.

The Black-Scholes valuation model requires extensive use of accounting judgment and financial estimation. Application of alternative assumptions could produce significantly different estimates of the fair value of stock-based compensation and consequently, the related amounts recognized in the consolidated statements of operations.

Other Stock Awards

A summary of restricted stock, restricted stock unit and performance stock unit activity is as follows:

	Restricted Stock, Restricted Stock Units, and Performance Stock Units (1)	Weighted Average Grant Price	Weighted Average Remaining Contractual Term (years)	Aggregate Intrinsic Value
Outstanding, December 31, 2021	249	\$ 55.40		
Granted	83	\$ 94.14		
Class A common stock vested	(126)	\$ 50.05		
Forfeited or canceled	(37)	\$ 68.02		
Outstanding, December 31, 2022	169	\$ 75.52	1.6	\$ 13,410
Unvested, December 31, 2022	268	\$ 79.06	1.6	\$ 21,219

- (1) Market-based performance stock unit grants are included at 100%. Attainment of maximum performance targets and market achievements would result in the issuance of an additional 99 shares of Class A common stock currently included in unvested. The market-based performance stock unit grants that vested in fiscal year 2022 resulted in the issuance of 84 additional shares of Class A common stock.

During fiscal years 2022, 2021 and 2020, stock-based compensation expense related to restricted stock, restricted stock units and performance stock units was \$7,530, \$11,241 and \$7,965, respectively.

During fiscal years 2022, 2021 and 2020, the total fair value of other stock awards vested was \$17,011, \$20,106 and \$18,329, respectively.

As of December 31, 2022, total unrecognized stock-based compensation expense related to outstanding restricted stock was \$34, which will be recognized over a weighted average period of 1.2 years. As of December 31, 2022, total unrecognized stock-based compensation expense related to outstanding restricted stock units was \$3,670, which will be recognized over a weighted average period of 1.7 years. As of December 31, 2022, total unrecognized stock-based compensation expense related to performance stock units based on our estimated achievement of the established performance criteria was \$4,847, which will be recognized over a weighted average period of 1.6 years.

The weighted average fair value of market-based performance stock units granted during fiscal year 2022 was \$103.84 per award, which was calculated using a Monte Carlo pricing model assuming a risk-free interest rate of 1.9% and an expected volatility of 34.8% assuming no expected dividend yield. Risk-free interest rate is based on the U.S. Treasury yield curve for the expected service period of the award. Expected volatility is calculated using the daily volatility of our Class A common stock over the expected service period of the award.

The Monte Carlo pricing model requires extensive use of accounting judgment and financial estimation. Application of alternative assumptions could produce significantly different estimates of the fair value of stock-based compensation and consequently, the related amounts recognized in the consolidated statements of operations.

We also recorded \$376, \$281 and \$254 of stock-based compensation expense related to our Amended and Restated 1997 Employee Stock Purchase Plan during fiscal years 2022, 2021 and 2020, respectively.

Tax benefit for income taxes associated with stock-based compensation during fiscal years 2022, 2021 and 2020 was \$(1,744), \$(2,304) and \$(6,796), respectively.

Accumulated Other Comprehensive Income (Loss), Net of Tax

Accumulated other comprehensive income (loss), net of tax is a component of stockholders' equity included in the accompanying consolidated balance sheets and includes, as applicable, the effective portion of changes in the fair value of our cash flow hedges and the changes in fair value of our marketable securities.

The changes in the balances of each component of accumulated other comprehensive income (loss), net of tax are as follows:

	Interest Rate Swaps
Balance as of December 31, 2019	\$ (6,041)
Other comprehensive loss before reclassifications	(11,184)
Amounts reclassified from accumulated other comprehensive loss	3,679
Income tax benefit related to items in other comprehensive loss	2,029
Other comprehensive loss	(5,476)
Balance as of December 31, 2020	(11,517)
Other comprehensive income before reclassifications	3,737
Amounts reclassified from accumulated other comprehensive loss	4,763
Income tax provision related to items in other comprehensive income	(2,086)
Other comprehensive income	6,414
Balance as of December 31, 2021	(5,103)
Other comprehensive income before reclassifications	15,297
Amounts reclassified from accumulated other comprehensive loss	1,443
Income tax provision related to items in other comprehensive income	(4,095)
Other comprehensive income	12,645
Balance as of December 31, 2022	\$ 7,542

A summary of reclassifications out of accumulated other comprehensive income (loss), net of tax for fiscal years 2022, 2021 and 2020 is as follows:

	Fiscal Year Ended December 31,			
	2022	2021	2020	
Details About Accumulated Other Comprehensive Income (Loss), Net of Tax Components	Amounts Reclassified Out of Accumulated Other Comprehensive Income (Loss), Net of Tax			Affected Line Item in the Consolidated Statements of Operations
Interest rate swaps	\$ 1,443	\$ 4,763	\$ 3,679	Interest expense
	(1,443)	(4,763)	(3,679)	Income before income taxes
	98	(1,142)	(2,029)	Provision (benefit) for income taxes
	<u>\$ (1,541)</u>	<u>\$ (3,621)</u>	<u>\$ (1,650)</u>	Net income

15. FAIR VALUE OF FINANCIAL INSTRUMENTS

We use a three-tier fair value hierarchy to classify and disclose all assets and liabilities measured at fair value on a recurring basis, as well as assets and liabilities measured at fair value on a non-recurring basis, in periods subsequent to their initial measurement. These tiers include: Level 1, defined as quoted market prices in active markets for identical assets or liabilities; Level 2, defined as inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; and Level 3, defined as unobservable inputs that are not corroborated by market data.

We use valuation techniques that maximize the use of market prices and observable inputs and minimize the use of unobservable inputs. In measuring the fair value of our financial assets and liabilities, we rely on market data or assumptions that we believe market participants would use in pricing an asset or a liability.

Assets and Liabilities Accounted for at Fair Value on a Recurring Basis

Our financial instruments include cash and cash equivalents, accounts receivable, restricted investment securities held in trust on deposit with various banks as collateral for our obligations relative to our landfill final capping, closure and post-closure costs, interest rate derivatives, contingent consideration related to acquisitions, trade payables and debt. The carrying values of cash and cash equivalents, accounts receivable and trade payables approximate their respective fair values due to their short-term nature. The fair value of restricted investment securities held in trust, which are valued using quoted market prices, are included as restricted assets in the Level 1 tier below. The fair value of interest rate derivatives included in the Level 2 tier below is calculated using discounted cash flow valuation methodologies based upon the one month LIBOR yield curves that are observable at commonly quoted intervals for the full term of the swaps. The fair value of contingent consideration - acquisition included in the Level 3 tier is calculated using a discounted cash flow valuation methodology based upon a probability-weighted analysis of success payments related to permit expansion. We recognize all derivatives accounted for on the balance sheet at fair value. See Note 12, *Debt* for disclosure about the fair value of debt.

Recurring Fair Value Measurements

Summaries of our financial assets and liabilities that are measured at fair value on a recurring basis are as follows:

Fair Value Measurement at December 31, 2022 Using:			
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:			
Interest rate swaps	\$ —	\$ 11,806	\$ —
Restricted investment securities - landfill closure	1,900	—	—
Total	<u>\$ 1,900</u>	<u>\$ 11,806</u>	<u>\$ —</u>
Liabilities:			
Contingent consideration - acquisition	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 1,919</u>
Fair Value Measurement at December 31, 2021 Using:			
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:			
Interest rate swaps	\$ —	\$ 424	\$ —
Restricted investment securities - landfill closure	2,122	—	—
Total	<u>\$ 2,122</u>	<u>\$ 424</u>	<u>\$ —</u>
Liabilities:			
Interest rate swaps	\$ —	\$ 5,176	\$ —
Contingent consideration - acquisition	—	—	1,919
Total	<u>\$ —</u>	<u>\$ 5,176</u>	<u>\$ 1,919</u>

16. EMPLOYEE BENEFIT PLANS

Defined Contribution Plan

We offer our eligible employees the opportunity to contribute to a 401(k) plan (“401(k) Plan”). Under the provisions of the 401(k) Plan participants may direct us to defer a portion of their compensation to the 401(k) Plan, subject to Internal Revenue Code limitations. In fiscal year 2022, we provided an employer matching contribution for hourly employees equal to 100% of every dollar an employee invests up to 1% of annual income and 50% of additional employee contributions up to a maximum contribution into the 401(k) Plan of 3% of annual income. In fiscal year 2022, we provided an employer matching contribution for salaried employees equal to 50% of every dollar an employee invests in the 401(k) Plan up to a maximum contribution of one thousand five hundred dollars or up to 2% of annual income, whichever is greater, per employee per calendar year. Participants vest in employer contributions ratable over a two-year period. Employer contributions for fiscal years 2022, 2021 and 2020 amounted to \$3,558, \$2,811 and \$2,357, respectively.

Employee Stock Purchase Plan

We offer our eligible employees the opportunity to participate in an employee stock purchase plan. Under this plan, qualified employees may purchase shares of Class A common stock by payroll deduction at a 15% discount from the market price. Class A common stock issued under this plan during fiscal years 2022, 2021 and 2020 amounted to 22, 20 and 20 shares, respectively. As of December 31, 2022, 32 shares of Class A common stock were available for distribution under this plan.

Defined Benefit Pension Plan

We contribute to a multiemployer defined benefit pension plan. The Pension Plan, under the terms of a collective bargaining agreement covers certain of our union represented employees. In fiscal year 2019, we reached an agreement to withdraw from the Pension Plan by entering into Withdrawal and Re-entry Agreements with the Pension Plan. The withdrawal generated a fixed yearly contingent liability for us for a period of approximately seventeen (17) years, that capped our gross payments at \$4,224, significantly reducing our cash exposure from the potential \$18,511 withdrawal liability as determined based on a complete withdrawal prior to withdrawing from the Pension Plan. As of December 31, 2022, we had a remaining obligation of \$1,586 in aggregate principal amount associated with our withdrawal. Upon re-entry as a new employer in the Pension Plan, our contributions are projected to fully fund the defined benefits accrued by our employees in the Pension Plan, thereby eliminating future accruals of withdrawal liability. As of December 31, 2022, our employees were fully funded, subject to the terms of the Withdrawal and Re-entry Agreements. Subsequent withdrawal from the Pension Plan, under certain circumstances, may result in a change in the payment schedule required to settle the remaining obligation associated with our withdrawal. During fiscal years 2022, 2021 and 2020, we made contributions to the Pension Plan of \$442, \$398 and \$390, respectively.

17. INCOME TAXES

A summary of the provision (benefit) for income taxes is as follows:

	Fiscal Year Ended December 31,		
	2022	2021	2020
Federal			
Current	\$ —	\$ —	\$ (951)
Deferred	15,645	12,356	(35,177)
	<u>15,645</u>	<u>12,356</u>	<u>(36,128)</u>
State			
Current	5,362	1,873	435
Deferred	880	2,717	(17,111)
	<u>6,242</u>	<u>4,590</u>	<u>(16,676)</u>
Provision (benefit) for income taxes	<u>\$ 21,887</u>	<u>\$ 16,946</u>	<u>\$ (52,804)</u>

On a periodic basis, we reassess the valuation allowance on our deferred income tax assets, weighing positive and negative evidence to assess the recoverability of the deferred tax assets. In the fourth quarter of fiscal year 2020, we assessed the valuation allowance and considered positive evidence, including significant cumulative consolidated income over the three years ended December 31, 2020, revenue growth and expectations of future profitability, and negative evidence, including the impact of a negative change in the economic climate, significant risks and uncertainties in the business and restrictions on tax loss utilization in certain state jurisdictions. After assessing both the positive evidence and the negative evidence, we determined it was more likely than not that the majority of our deferred tax assets would be realized in the future and released the valuation allowance on the majority of our net operating loss carryforwards and other deferred tax assets as of December 31, 2020, resulting in a benefit from income taxes of \$61,317. Following reassessment in fiscal year 2021 and fiscal year 2022, our judgement with regard to the realizability of our deferred tax assets remains consistent. As of December 31, 2022, we maintained a valuation allowance of \$4,668 primarily related to deferred tax assets that would generate capital losses when realized and deferred tax assets related to certain state jurisdictions.

In assessing the realizability of carryforwards and other deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. We adjust the valuation allowance in the period management determines it is more likely than not that deferred tax assets will or will not be realized. The change in the valuation allowance was a decrease of \$1,814 for fiscal year 2022 primarily due to changes in state laws related to the utilization of net operating losses. In determining the need for a valuation allowance, we have assessed the available means of recovering deferred tax assets, including the ability to carryback net operating losses, the existence of reversing temporary differences, and available sources of future taxable income. We have also considered the ability to implement certain strategies,

such as a potential sale of assets that would, if necessary, be implemented to accelerate taxable income and use expiring deferred tax assets.

The differences in the provision (benefit) for income taxes and the amounts determined by applying the Federal statutory rate to income before income taxes are as follows:

	Fiscal Year Ended December 31,		
	2022	2021	2020
Federal statutory rate	21 %	21 %	21 %
Tax at statutory rate	\$ 15,743	\$ 12,190	\$ 8,043
State income taxes, net of federal benefit	6,087	3,868	1,615
Change in valuation allowance	(1,425)	(388)	(61,317)
Federal effect of change in state valuation allowance	282	74	3,803
Non-deductible officer compensation	1,300	1,338	487
Non-deductible expenses	782	322	656
Deductible stock awards	(627)	(363)	(3,790)
Tax credits	(83)	(153)	(130)
Deferred tax adjustments	—	—	(2,047)
Other, net	(172)	58	(124)
Provision (benefit) for income taxes	<u>\$ 21,887</u>	<u>\$ 16,946</u>	<u>\$ (52,804)</u>

Deferred income taxes reflect the impact of temporary differences between the amounts of assets and liabilities recognized for financial reporting purposes and such amounts recognized for income tax purposes. A summary of deferred tax assets and liabilities is as follows:

	December 31,	
	2022	2021
Deferred tax assets:		
Accrued expenses and reserves	\$ 43,437	\$ 41,723
Net operating loss carryforwards	13,398	24,177
General business and state tax credit carryforwards	6,987	7,617
Stock awards	2,728	3,436
Unrealized loss on swaps	—	1,461
Other	2,419	2,264
Total deferred tax assets	68,969	80,678
Less: valuation allowance	(4,668)	(6,094)
Total deferred tax assets after valuation allowance	64,301	74,584
Deferred tax liabilities:		
Amortization of intangibles	(17,252)	(18,042)
Unrealized gain on swaps	(3,022)	—
Tax over book depreciation of property and equipment	(21,561)	(13,297)
Other	—	(156)
Total deferred tax liabilities	(41,835)	(31,495)
Net deferred tax asset	<u>\$ 22,466</u>	<u>\$ 43,089</u>

The net deferred tax asset at December 31, 2022 is reflected on the consolidated balance sheet as a long-term deferred federal and state tax asset of \$22,903 and a long-term deferred state tax liability of \$(437).

As of December 31, 2022, we have, for federal income tax purposes, net operating loss carryforwards of approximately \$5,864 that expire in the fiscal years ending December 31, 2032 through 2037 and \$46,453, which do not expire. We have state net operating loss carryforwards of approximately \$29,306 that expire in the fiscal years ending December 31, 2023 through 2041 or that do not expire in certain jurisdictions. In addition, we have \$6,663 general business credit carryforwards which expire in the fiscal years ending December 31, 2023 through 2041 and \$411 state credit carryforwards which expire in fiscal years ending December 31, 2038 through 2039. Sections 382 and 383 of the Internal Revenue Code can limit the amount of net operating loss and credit carryforwards which may be used in a tax year in the event of certain stock ownership changes. With the exception of \$1,756 federal net operating losses we acquired through acquisitions, we are not currently subject to these limitations but could become subject to them if there were significant changes in the ownership of our stock.

The provisions of FASB ASC 740-10-25-5 prescribe the minimum recognition threshold that a tax position is required to meet before being recognized in the financial statements. Additionally, FASB ASC 740-10-25-5 provides guidance on derecognition, measurement, classification, interest and penalties, accounting in interim periods, disclosure and transition. Under FASB ASC 740-10-25-5, an entity may only recognize or continue to recognize tax positions that meet a “more likely than not” threshold. To the extent interest and penalties are not assessed with respect to uncertain tax positions, amounts accrued are reflected as a reduction of the overall income tax provision. As of December 31, 2022 and 2021, we did not have any uncertain tax positions.

We are subject to U.S. federal income tax, as well as the income tax of multiple state jurisdictions. For federal tax purposes, income tax returns from years ending 2019 through 2022 are open for assessment. Tax years 1998 through 2018 are open for examination to the extent of any NOLs or credits that have been carried forward from those years.

18. OTHER ITEMS AND CHARGES

Southbridge Landfill Closure Charge, Net

In the fiscal year ended December 31, 2017, we initiated a plan to cease operations of the Town of Southbridge, Massachusetts landfill (“Southbridge Landfill”) and later closed it in November 2018 when Southbridge Landfill reached its final capacity. Accordingly, in fiscal years 2022, 2021 and 2020, we recorded charges associated with the closure of the Southbridge Landfill as follows:

	Fiscal Year Ended December 31,		
	2022	2021	2020
Legal and transaction costs (1)	\$ 684	\$ 868	\$ 2,285
Contract settlement charge (2)	—	572	—
Landfill closure project charge (credit) (3)	752	(944)	490
Legal settlement charge (4)	—	—	2,000
Environmental remediation charge (5)	—	—	(188)
Southbridge Landfill closure charge, net	<u>\$ 1,436</u>	<u>\$ 496</u>	<u>\$ 4,587</u>

- (1) We incurred legal costs as well as other transaction costs associated with various matters as part of the Southbridge Landfill closure.
- (2) We updated the cost estimates associated with a contract settlement charge associated with the Southbridge Landfill closure and the remaining future obligations due to the Town of Southbridge under the landfill operating agreement with the Town of Southbridge.
- (3) We recorded a landfill closure project (credit) charge associated with revised costs under the closure plan at Southbridge Landfill.
- (4) We established reserves and made payments associated with legal settlements associated with claims against us as part of the Southbridge Landfill closure. See Note 10, *Final Capping, Closure and Post-Closure Costs* for further discussion over our asset retirement obligations associated with our active and closed landfills.
- (5) We recorded an environmental remediation reversal associated with the completion of environmental remediation at the Southbridge Landfill.

Expense from Acquisition Activities

In the fiscal years 2022, 2021 and 2020, we recorded charges of \$4,613, \$5,304 and \$1,862, respectively, comprised primarily of legal, consulting and other similar costs associated with the acquisition and integration of acquired businesses or select development projects. See Note 5, *Business Combinations* for disclosure regarding acquisition activity.

Environmental Remediation Charge

In fiscal year 2022, we recorded a charge of \$759 associated with the investigation of potential remediation at an inactive waste disposal site that adjoins one of the landfills we operate. In fiscal year 2021, we recorded a charge of \$924 associated with a settlement agreement to conduct restoration of a stream bed on lands adjoining one of our landfills. See Note 13, *Commitments and Contingencies* for disclosure regarding environmental remediation liabilities.

19. EARNINGS PER SHARE

A summary of the numerator and denominators used in the computation of earnings per share is as follows:

	Fiscal Year Ended December 31,		
	2022	2021	2020
Numerator:			
Net income	\$ 53,079	\$ 41,100	\$ 91,106
Denominator:			
Class A common stock	50,704	50,423	50,101
Class B common stock	988	988	988
Unvested restricted stock	(1)	(2)	(2)
Effect of weighted average shares outstanding	(68)	(97)	(2,294)
Basic weighted average common shares outstanding	51,623	51,312	48,793
Impact of potentially dilutive securities:			
Dilutive effect of stock options and stock awards	144	203	252
Diluted weighted average common shares outstanding	51,767	51,515	49,045
Antidilutive potentially issuable shares	111	10	—

20. RELATED PARTY TRANSACTIONS

Services

During fiscal years 2022, 2021 and 2020, we retained the services of Casella Construction, Inc. ("CCI"), a company substantially owned by sons of John Casella, our Chairman and Chief Executive Officer, and Douglas Casella, a member of our Board of Directors, as a contractor in developing or closing certain landfills owned by us as well as providing transportation and construction services. Total purchased services charged to operations or capitalized to landfills for fiscal years 2022, 2021 and 2020 were \$12,297, \$15,206 and \$12,601, respectively, of which \$1,891 and \$1,325 were outstanding and included in either accounts payable or other current liabilities as of December 31, 2022 and December 31, 2021, respectively.

In addition to the total purchased services, we provided various waste collection and disposal services to CCI. Total revenues recorded for fiscal years 2022, 2021 and 2020 were \$141, \$430 and \$288, respectively.

Leases

In the fiscal year ended April 30, 1994, we entered into two leases for operating facilities with a partnership of which John Casella, our Chairman and Chief Executive Officer, and Douglas Casella, a member of our Board of Directors, are the general partners. The leases have since been extended through August 2023. The terms of the lease agreements require monthly payments of approximately \$29. Total expense charged to operations for fiscal years 2022, 2021 and 2020 under these agreements was \$273, \$297 and \$319, respectively.

Landfill Post-closure

We have agreed to pay the cost of post-closure on a landfill owned by John Casella, our Chairman and Chief Executive Officer, and Douglas Casella, a member of our Board of Directors. We paid the cost of closing this landfill in 1992, and the post-closure maintenance obligations are expected to last until notified by the permitting authority. In fiscal years 2022, 2021 and 2020, we paid \$10, \$12 and \$8, respectively, pursuant to this agreement. As of December 31, 2022 and December 31, 2021, we have accrued \$17 and \$14, respectively, for costs associated with its post-closure obligations.

21. SEGMENT REPORTING

We report selected information about our reportable operating segments in a manner consistent with that used for internal management reporting. We classify our solid waste operations on a geographic basis through regional operating segments, our Western and Eastern regions. Revenues associated with our solid waste operations are derived mainly from solid waste collection and disposal services, including landfill, transfer station and transportation services, landfill gas-to-energy services, and processing services in the northeastern United States. Our Resource Solutions operating segment, which includes our larger-scale recycling and commodity brokerage operations along with our organics services and large scale commercial and industrial services, leverages our core competencies in materials processing, industrial recycling, organics and resource management service offerings to deliver a comprehensive solution for our larger commercial, municipal, institutional and industrial customers that have more diverse waste and recycling needs. Revenues associated with our Resource Solutions operations are derived from two lines-of-service: processing services and our Customer Solutions business. Revenues from processing services are derived from customers in the form of processing fees, tipping fees, commodity sales, and organic material sales. Revenues from our Customer Solutions business are derived from brokerage services and overall resource management services providing a wide range of environmental services and resource management solutions to large and complex organizations, as well as traditional collection, disposal and recycling services provided to large account multi-site customers. Legal, tax, information technology, human resources, certain finance and accounting and other administrative functions are included in our Corporate Entities segment, which is not a reportable operating segment. Corporate Entities results reflect those costs not allocated to our reportable operating segments.

Fiscal Year Ended December 31, 2022

Segment	Outside revenues	Inter-company revenue	Depreciation and amortization	Operating income (loss)	Interest expense, net	Capital expenditures	Goodwill	Total assets
Eastern	\$ 340,058	\$ 83,201	\$ 47,673	\$ 16,559	\$ 565	\$ 38,501	\$ 52,406	\$ 372,895
Western	445,153	151,016	64,116	65,453	508	65,190	183,286	737,658
Resource Solutions	299,878	5,734	12,082	15,862	146	15,172	38,766	191,118
Corporate Entities	—	—	2,480	(2,480)	21,794	12,097	—	147,544
Eliminations	—	(239,951)	—	—	—	—	—	—
	<u>\$1,085,089</u>	<u>\$ —</u>	<u>\$ 126,351</u>	<u>\$ 95,394</u>	<u>\$ 23,013</u>	<u>\$ 130,960</u>	<u>\$ 274,458</u>	<u>\$1,449,215</u>

Fiscal Year Ended December 31, 2021

Segment	Outside revenues	Inter-company revenue	Depreciation and amortization	Operating income (loss)	Interest expense, net	Capital expenditures	Goodwill	Total assets
Eastern	\$ 264,569	\$ 66,126	\$ 33,572	\$ 12,937	\$ 456	\$ 31,489	\$ 52,072	\$ 357,446
Western	389,520	132,914	61,055	49,035	159	72,892	163,728	688,826
Resource Solutions	235,122	3,258	7,060	17,591	168	12,094	17,060	127,304
Corporate Entities	—	—	1,903	(1,903)	20,144	6,820	—	110,004
Eliminations	—	(202,298)	—	—	—	—	—	—
	<u>\$ 889,211</u>	<u>\$ —</u>	<u>\$ 103,590</u>	<u>\$ 77,660</u>	<u>\$ 20,927</u>	<u>\$ 123,295</u>	<u>\$ 232,860</u>	<u>\$1,283,580</u>

Fiscal Year Ended December 31, 2020

Segment	Outside revenues	Inter-company revenue	Depreciation and amortization	Operating income (loss)	Interest expense, net	Capital expenditures	Goodwill	Total assets
Eastern	\$ 220,285	\$ 53,102	\$ 25,669	\$ 11,635	\$ 275	\$ 29,292	\$ 30,873	\$ 223,492
Western	357,989	116,658	56,457	42,688	141	71,989	149,984	642,003
Resource Solutions	196,310	10,675	6,279	7,357	201	2,477	14,044	88,512
Corporate Entities	—	—	2,377	(2,383)	21,451	4,350	—	239,891
Eliminations	—	(180,435)	—	—	—	—	—	—
	<u>\$ 774,584</u>	<u>\$ —</u>	<u>\$ 90,782</u>	<u>\$ 59,297</u>	<u>\$ 22,068</u>	<u>\$ 108,108</u>	<u>\$ 194,901</u>	<u>\$1,193,898</u>

Amount of our total revenue attributable to services provided are as follows:

	Fiscal Year Ended December 31,					
	2022		2021		2020	
Collection	\$ 539,587	49.7 %	\$ 442,685	49.8 %	\$ 391,438	50.5 %
Disposal	227,971	21.0 %	196,985	22.2 %	175,546	22.7 %
Power generation	7,519	0.7 %	5,138	0.6 %	4,072	0.5 %
Processing	10,134	1.0 %	9,281	1.0 %	7,218	1.0 %
Solid waste operations	785,211	72.4 %	654,089	73.6 %	578,274	74.7 %
Processing	119,045	10.9 %	93,323	10.5 %	62,539	8.0 %
Customer Solutions	180,833	16.7 %	141,799	15.9 %	133,771	17.3 %
Resource Solutions operations	299,878	27.6 %	235,122	26.4 %	196,310	25.3 %
Total revenues	<u>\$ 1,085,089</u>	<u>100.0 %</u>	<u>\$ 889,211</u>	<u>100.0 %</u>	<u>\$ 774,584</u>	<u>100.0 %</u>

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our chief executive officer and chief financial officer, evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2022. The term “disclosure controls and procedures,” as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Securities Exchange Act of 1934, as amended, is recorded, processed, summarized and reported, within the time periods specified in the SEC’s rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Securities Exchange Act of 1934, as amended, is accumulated and communicated to our management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of December 31, 2022, our chief executive officer and chief financial officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rule 13a-15(f) under the Securities Exchange Act of 1934, as amended. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate. Our management assessed the effectiveness of our internal control over financial reporting as of December 31, 2022. In making this assessment, our management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in Internal Control-Integrated Framework in 2013. Based on its assessment, management concluded that, as of December 31, 2022, our internal control over financial reporting is effective based on those criteria. The effectiveness of our internal control over financial reporting as of December 31, 2022 has been audited by RSM US LLP, an independent registered public accounting firm. RSM US LLP has issued an attestation report on our internal control over financial reporting, which is included herein.

We completed the acquisitions of Dickson's Environmental Services, Inc. ("Dickson") on July 21, 2022; Northstar Pulp & Paper, Co. Inc. and Northstar Disposal Corp. (collectively "Northstar") on March 1, 2022; and Shanks Enterprises, Inc. ("Shanks") on December 1, 2022. Since we have not yet fully incorporated the internal controls and procedures of Dickson, Northstar and Shanks into our internal control over financial reporting, management excluded Dickson, Northstar and Shanks from its assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2022. Collectively, Dickson, Northstar and Shanks constituted approximately 3% of our total assets as of December 31, 2022 and 3% of our total revenues for the year ended December 31, 2022.

Changes in Internal Control Over Financial Reporting

No change in our internal control over financial reporting occurred during the fiscal quarter ended December 31, 2022 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

Disclosure Pursuant to Item 5.03 of Form 8-K - Amendments to Articles of Incorporation or Bylaws; Change in Fiscal Year

On February 15, 2023, our Board of Directors (the "Board") approved an amendment and restatement of the Company's Third Amended and Restated By-Laws, as amended (as so amended and restated, the "Fourth Amended and Restated By-Laws"). The Fourth Amended and Restated By-Laws, which were effective upon adoption by the Board, include the following amendments:

Article I (Stockholders) was amended to, among other things:

- (1) expressly permit the Company to hold stockholder meetings solely by means of remote communication;
- (2) address the record date for stockholder meetings separately from the record date for purposes other than stockholder meetings and expressly permit the Board to separate the record date for determining stockholders entitled to vote at a stockholder meeting from the record date for determining stockholders entitled to notice of such meeting, or bifurcated record dates, consistent with Section 213 of the Delaware General Corporation Law ("DGCL");
- (3) clarify that notices of stockholder meetings (i) must include the information required by Section 222 of the DGCL and (ii) may be given to stockholders in accordance with Section 232 of the DGCL;
- (4) eliminate the former requirement that the list of stockholders entitled to vote at a stockholder meeting also be made available during the actual meeting;
- (5) clarify that only the chairman of a meeting of stockholders may adjourn such meeting;
- (6) address adjournment of stockholder meetings relying on remote communication due to a technical failure and the ability to have bifurcated record dates for adjourned meetings;
- (7) revise and enhance, in light of the universal proxy rules adopted by the Securities and Exchange Commission, procedural mechanics and disclosure requirements in connection with stockholder nominations of directors and submission of proposals regarding other business at stockholder meetings;
- (8) require that any person directly or indirectly soliciting proxies from the Company's stockholders use a proxy card color other than white; and
- (9) provide that stockholders' notices to the Company of nominations or other business must be in writing exclusively and must be delivered exclusively by hand or by certified or registered mail, return receipt requested.

Article II (Directors) was amended to, among other things:

- (1) provide for electronic transmission of notices and consents; and
- (2) add provisions for special notice and quorum requirements for Board meetings during an emergency situation of the type described in Section 110(a) of the DGCL and limit the liability of directors acting pursuant to such provisions to willful misconduct.

Article IV (Capital Stock) was amended to, among other things:

- (1) provide that shares can be uncertificated to the extent determined by the Board; and
- (2) address the record date for purposes other than stockholder meetings separately from the record date for stockholder meetings.

Article V (General Provisions) was amended to, among other things, provide for electronic transmission of any waiver of notice that is required to be given by law, the Company's certificate of incorporation or the Company's by-laws.

The Fourth Amended and Restated By-Laws also include certain technical, conforming and clarifying changes. The foregoing description of the Fourth Amended and Restated By-Laws is qualified in its entirety by reference to the full text of the Fourth Amended and Restated By-Laws, which is attached to this Annual Report on Form 10-K as Exhibit 3.2 and incorporated in this Item 9B. "Other Information" by reference.

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by this Item (except for information required with respect to our executive officers which is set forth under “*Information about our Executive Officers*” in Item 1 of Part I of this Annual Report on Form 10-K) has been omitted from this Annual Report on Form 10-K, and is incorporated herein by reference from our definitive proxy statement for the 2023 Annual Meeting of Stockholders that we intend to file with the Securities and Exchange Commission within 120 days after the end of fiscal year ended December 31, 2022 (the “Proxy Statement”), under the sections captioned “Board of Directors”, “Corporate Governance” and “Ownership of Our Common Stock”.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this Item (other than the information required by Item 402(v) of Regulation S-K) is incorporated herein by reference from the Proxy Statement under the sections captioned “Executive and Director Compensation and Related Matters” and “Corporate Governance”.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by this Item (except for the information required with respect to equity compensation plan information, which is set forth under “Equity Compensation Plan Information” below) is incorporated herein by reference from the Proxy Statement under the section captioned “Ownership of Our Common Stock”.

Equity Compensation Plan Information

The following table shows information about the securities authorized for issuance under our equity compensation plans as of December 31, 2022:

	(a)	(b)	(c)
	Number of securities to be issued upon exercise of outstanding options, warrants and rights (1)	Weighted-average exercise price of outstanding options, warrants and rights (2)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a) (3))
Plan Category			
Equity compensation plans approved by security holders	297,969	\$ 55.60	829,182
Equity compensation plans not approved by security holders	—	\$ —	—
Total	297,969	\$ 55.60	829,182

- (1) Performance stock units, including market-based performance stock units are included at the 100% attainment level. Attainment of maximum performance targets and market achievements could result in the issuance of an additional 98,465 shares of Class A common stock.
- (2) The weighted average exercise price of outstanding options, warrants and rights excludes restricted stock units and other equity-based awards that do not have an exercise price.
- (3) Includes 797,359 shares of our Class A common stock issuable under our 2016 Incentive Plan and 31,823 shares of our Class A common stock issuable under our Amended and Restated 1997 Employee Stock Purchase Plan.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by this Item is incorporated herein by reference from the Proxy Statement under the section captioned “Corporate Governance”.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by this Item is incorporated herein by reference from the Proxy Statement under the section captioned “Proposal 3 - Ratification of the Appointment of Independent Auditors”.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

- (a)(1) Consolidated Financial Statements included under Item 8.
 Report of Independent Registered Public Accounting Firm – RSM US LLP.
 Consolidated Balance Sheets as of December 31, 2022 and December 31, 2021.
 Consolidated Statements of Operations for fiscal years 2022, 2021 and 2020.
 Consolidated Statements of Comprehensive Income for fiscal years 2022, 2021 and 2020.
 Consolidated Statement of Stockholders' Equity for fiscal years 2022, 2021 and 2020.
 Consolidated Statements of Cash Flows for fiscal years 2022, 2021 and 2020.
 Notes to Consolidated Financial Statements.

- (a)(2) Financial Statement Schedules:
 All schedules have been omitted because the required information is not significant or is included in the consolidated financial statements or notes thereto, or is not applicable.

- (a)(3) Exhibits:

Exhibit No.	Description
3.1	<u>Second Amended and Restated Certificate of Incorporation of Casella Waste Systems, Inc., as amended (incorporated herein by reference to Exhibit 3.1 to the quarterly report on Form 10-Q of Casella as filed on December 7, 2007(file no. 000-23211)).</u>
3.2 +	<u>Fourth Amended and Restated By-Laws of Casella Waste Systems, Inc.</u>
4.1	<u>Form of stock certificate of Casella Class A common stock (incorporated herein by reference to Exhibit 4 to Amendment No. 2 to the registration statement on Form S-1 of Casella as filed on October 9, 1997 (file no. 333-33135)).</u>
4.2	<u>Certificate of Designation creating Series A Convertible Preferred Stock (incorporated herein by reference to Exhibit 4.1 to the current report on Form 8-K of Casella as filed on August 18, 2000 (file no. 000-23211)).</u>
4.3	<u>Description of Securities Registered Under Section 12 of the Exchange Act (incorporated herein by reference to Exhibit 4.3 to the annual report on Form 10-K of Casella as filed on February 19, 2021 (file no. 000-23211)).</u>
4.4	<u>FAME Financing Agreement, dated as of August 1, 2015, between Casella and the Finance Authority of Maine (incorporated herein by reference to Exhibit 4.1 to the current report on Form 8-K of Casella as filed on August 27, 2015 (file no. 000-23211)).</u>
4.5	<u>FAME Guaranty Agreement, dated as of August 1, 2015, by and between the guarantors named therein and U.S. Bank National Association, as trustee (incorporated herein by reference to Exhibit 4.2 to the current report on Form 8-K of Casella as filed on August 27, 2015 (file no. 000-23211)).</u>
4.6	<u>Loan Agreement, dated as of December 1, 2014, between New York State Environmental Facilities Corporation and Casella (incorporated herein by reference to Exhibit 4.1 to the current report on Form 8-K of Casella as filed on December 18, 2014 (file no. 000-23211)).</u>
4.7	<u>NYSEFC Amended and Restated Guaranty Agreement, dated as of June 1, 2016, by and between the guarantors named therein and U.S. Bank National Association, as Trustee (incorporated herein by reference to Exhibit 4.1 to the current report on Form 8-K of Casella as filed on June 2, 2016 (file no. 000-23211)).</u>
4.8	<u>BFA Guaranty Agreement, dated as of October 1, 2014, by and among U.S. Bank National Association, as Trustee, and the guarantors identified therein (incorporated herein by reference to Exhibit 10.1 to the current report on Form 8-K of Casella as filed on October 16, 2014 (file no. 000-23211)).</u>
4.9	<u>Financing Agreement dated as of March 1, 2013 between Casella and the Vermont Economic Development Authority, relating to issuance of Vermont Economic Development Authority Solid Waste Disposal Revenue Bonds (incorporated herein by reference to Exhibit 10.1 to the current report on Form 8-K of Casella as filed April 5, 2013 (file no. 000-23211)).</u>

Exhibit No.	Description
4.10	<u>VEDA Guaranty Agreement, dated as of March 1, 2013, by and among U.S. Bank National Association, as Trustee, and the guarantors identified therein (incorporated herein by reference to Exhibit 4.8 to the annual report on Form 10-K of Casella as filed on June 27, 2014 (file no. 000-23211)).</u>
4.11	<u>Financing Agreement dated as of March 1, 2013 between Casella and the Business Finance Authority of the State of New Hampshire, relating to issuance of Business Finance Authority of the State of New Hampshire Solid Waste Disposal Revenue Bonds (incorporated herein by reference to Exhibit 10.2 to the current report on Form 8-K of Casella as filed on April 5, 2013 (file no. 000-23211)).</u>
4.12	<u>Financing Agreement between Casella and Finance Authority of Maine, dated as of December 1, 2005, relating to issuance of Finance Authority of Maine Solid Waste Disposal Revenue Bonds (Casella Waste Services, Inc. Project) Series 2005 (incorporated herein by reference to Exhibit 10.1 to the current report on Form 8-K of Casella as filed on January 4, 2006 (file no. 000-23211)).</u>
4.13	<u>First Amendment dated as of February 1, 2012 to Financing Agreement dated as of December 1, 2005, by and among Finance Authority of Maine, U.S. Bank National Association, as Trustee, Bank of America, as Credit Provider, and Casella (incorporated herein by reference to Exhibit 10.1 to the quarterly report on Form 10-Q of Casella as filed on March 2, 2012 (file no. 000-23211)).</u>
4.14	<u>Second Amendment dated as of February 1, 2017 to Financing Agreement dated as of December 1, 2005, by and among Finance Authority of Maine, U.S. Bank National Association, as Trustee, Bank of America, as Credit Provider, and Casella (incorporated herein by reference to Exhibit 4.2 to the current report on Form 8-K as filed on February 7, 2017 (file no. 000-23211)).</u>
4.15	<u>FAME Amended and Restated Guaranty Agreement, dated as of February 1, 2017, by and among U.S. Bank National Association, as Trustee, and the guarantors identified therein (incorporated herein by reference to Exhibit 4.1 to the current report on Form 8-K of Casella as filed on February 7, 2017 (file no. 000-23211)).</u>
4.16	<u>Loan Agreement, dated as of September 1, 2020, between New York State Environmental Facilities Corporation and Casella Waste Systems, Inc (incorporated herein by reference to Exhibit 4.1 to the Current Report on Form 8-K of Casella as filed on September 2, 2020 (file no. 000-23211)).</u>
4.17	<u>Guaranty Agreement, dated as of September 1, 2020, by and between the guarantors named therein and U.S. Bank National Association, as trustee (incorporated herein by reference to Exhibit 4.2 to the Current Report on Form 8-K of Casella as filed on September 2, 2020 (file no. 000-23211)).</u>
4.18	<u>Loan Agreement, dated as of June 1, 2022, between Vermont Economic Development Authority and Casella (incorporated herein by reference to Exhibit 4.1 to the Current Report on Form 8-K of Casella as filed on June 1, 2022 (file no. 000-23211)).</u>
4.19	<u>Guaranty Agreement, dated as of June 1, 2022, by and between the guarantors named therein and U.S. Bank Trust Company, National Association, as trustee (incorporated herein by reference to Exhibit 4.2 to the Current Report on Form 8-K of Casella as filed on June 1, 2022 (file no. 000-23211)).</u>
10.1	<u>Lease Agreement, as Amended, between Casella Associates and Casella Waste Management, Inc., dated August 1, 1993 (Rutland lease) (incorporated herein by reference to Exhibit 10.17 to the registration statement on Form S-1 of Casella as filed on August 7, 1997 (file no. 333-33135)).</u>
10.2	<u>Second Amendment to Lease Agreement, by and between Casella Associates and Casella Waste Management, Inc., dated as of November 20, 1997 (Rutland lease). (incorporated herein by reference to Exhibit 10.25 to the registration statement on Form S-1 of Casella as filed on June 25, 1998 (file no. 333-57745)).</u>
10.3	<u>Amendment to Lease Agreement dated as of March 13, 2008, between Casella Associates and Casella, amending Lease Agreement dated August 1, 1993, as amended (Rutland lease) (incorporated herein by reference to Exhibit 10.7 to the annual report on Form 10-K of Casella as filed on June 27, 2014 (file no. 000-23211)).</u>
10.4	<u>Lease Agreement, as Amended, between Casella Associates and Casella Waste Management, Inc., dated August 1, 1993 (Montpelier lease) (incorporated herein by reference to Exhibit 10.18 to the registration statement on Form S-1 of Casella as filed on August 7, 1997 (file no. 333-33135)).</u>
10.5	<u>Amendment to Lease Agreement dated as of March 13, 2008, between Casella Associates and Casella, amending Lease Agreement dated August 1, 1993, as amended (Montpelier lease) (incorporated herein by reference to Exhibit 10.9 to the annual report on Form 10-K of Casella as filed on June 27, 2014 (file no. 000-23211)).</u>

Exhibit No.	Description
10.6	<u>Lease, Operations and Maintenance Agreement between CV Landfill, Inc. and Casella Waste Systems, Inc. dated June 30, 1994 (incorporated herein by reference to Exhibit 10.20 to the registration statement on Form S-1 of Casella as filed on August 7, 1997 (file no. 333-33135)).</u>
10.7*	<u>Employment Agreement between Casella and John W. Casella dated December 8, 1999 (incorporated herein by reference to Exhibit 10.43 to the annual report on Form 10-K of Casella as filed on August 4, 2000 (file no. 000-23211)).</u>
10.8*	<u>Amendment to Employment Agreement by and between Casella and John W. Casella dated as of December 30, 2008 (incorporated herein by reference to Exhibit 10.3 to the quarterly report on Form 10-Q of Casella as filed on March 6, 2009 (file no. 000-23211)).</u>
10.9*	<u>2006 Stock Incentive Plan, as amended (incorporated herein by reference to Exhibit 10.13 to the annual report on Form 10-K of Casella as filed on March 2, 2016 (file no. 000-023211)).</u>
10.10*	<u>Form of Incentive Stock Option Agreement granted under 2006 Stock Incentive Plan (incorporated herein by reference to Exhibit 10.14 to the annual report on Form 10-K of Casella as filed on June 27, 2014 (file no. 000-23211)).</u>
10.11*	<u>Form of Restricted Stock Agreement granted under 2006 Stock Incentive Plan (incorporated herein by reference to Exhibit 10.15 to the annual report on Form 10-K of Casella as filed on June 27, 2014 (file no. 000-23211)).</u>
10.12*	<u>Form of Restricted Share Unit Agreement granted under 2006 Stock Incentive Plan (employee with employment contract) (incorporated herein by reference to Exhibit 10.16 to the annual report on Form 10-K of Casella as filed on June 27, 2014 (file no. 000-23211)).</u>
10.13*	<u>Form of Restricted Share Unit Agreement granted under 2006 Stock Incentive Plan (employee with no employment contract) (incorporated herein by reference to Exhibit 10.17 to the annual report on Form 10-K of Casella as filed on June 27, 2014 (file no. 000-23211)).</u>
10.14*	<u>Form of Restricted Stock Unit Agreement granted under 2006 Stock Incentive Plan (employee with employment contract) (incorporated herein by reference to Exhibit 10.18 to the annual report on Form 10-K of Casella as filed on June 27, 2014 (file no. 000-23211)).</u>
10.15*	<u>Form of Restricted Stock Unit Agreement granted under 2006 Stock Incentive Plan (employee with no employment contract) (incorporated herein by reference to Exhibit 10.19 to the annual report on Form 10-K of Casella as filed on June 27, 2014 (file no. 000-23211)).</u>
10.16*	<u>Form of Performance Share Unit Agreement granted under 2006 Stock Incentive Plan (incorporated herein by reference to Exhibit 10.2 to the quarterly report on Form 10-Q of Casella as filed on September 4, 2008 (file no. 000-23211)).</u>
10.17*	<u>Form of Restricted Stock Unit Agreement granted under 2006 Stock Incentive Plan (adopted March 1, 2016) (employee with employment contract) (incorporated herein by reference to Exhibit 10.2 to the current report on Form 8-K of Casella as filed on March 7, 2016 (file no. 000-23211)).</u>
10.18*	<u>Form of Restricted Stock Unit Agreement granted under 2006 Stock Incentive Plan (adopted March 1, 2016) (employee with no employment contract) (incorporated herein by reference to Exhibit 10.3 to the current report on Form 8-K of Casella as filed on March 7, 2016 (file no. 000-23211)).</u>
10.19*	<u>Amended and Restated Employment Agreement between Casella and Edwin D. Johnson dated as of June 20, 2022 (incorporated herein by reference to Exhibit 10.1 to the Current Report on Form 8-K of Casella as filed on June 22, 2022 (file no. 000-23211)).</u>
10.20*	<u>Amendment to Amended and Restated Employment Agreement between Casella and Edwin D. Johnson dated as of July 21, 2022 (incorporated herein by reference to Exhibit 10.5 to the quarterly report on Form 10-Q of Casella as filed on July 29, 2022 (file no. 000-23211)).</u>
10.21*	<u>Amended and Restated Employment Agreement between Casella and Edmond R. Coletta dated as of June 20, 2022 (incorporated herein by reference to Exhibit 10.1 to the Current Report on Form 8-K/A of Casella as filed on June 22, 2022 (file no. 000-23211)).</u>
10.22*	<u>Employment Agreement between Casella and Shelley E. Sayward dated as of January 1, 2021 (incorporated herein by reference to exhibit 10.25 to the annual report on Form 10-K of Casella as filed on February 19, 2021 (file no. 000-23211)).</u>

Exhibit No.	Description
10.23*	<u>Amended and Restated Employment Agreement between Casella and Christopher B. Heald dated as of October 25, 2021 (incorporated herein by reference to Exhibit 10.1 to the quarterly report on Form 10-Q of Casella as filed on October 29, 2021 (file no. 000-23211)).</u>
10.24*	<u>Employment Agreement between Casella and Kevin Drohan effective as of April 1, 2022 (incorporated herein by reference to Exhibit 10.1 to the Current Report on Form 8-K of Casella as filed on March 31, 2022 (file no. 000-23211)).</u>
10.25*	<u>Employment Agreement between Casella and Sean Steves effective as of July 1, 2022 (incorporated herein by reference to Exhibit 10.2 to the Current Report on Form 8-K/A of Casella as filed on June 22, 2022 (file no. 000-23211)).</u>
10.26	<u>Extension of Lease Agreements dated as of April 23, 2013, between Casella Associates and Casella, amending (i) Lease Agreement dated August 1, 1993, as amended (Montpelier lease) and (ii) Lease Agreement dated August 1, 1993, as amended (Rutland lease) (incorporated herein by reference to Exhibit 10.29 to the annual report on Form 10-K of Casella as filed on June 27, 2014 (file no. 000-23211)).</u>
10.27*	<u>Casella Waste Systems, Inc. Non-Equity Incentive Plan (incorporated herein by reference to Exhibit 10.1 of the current report on Form 8-K of Casella as filed on March 7, 2016 (file no. 000-23211)).</u>
10.28*	<u>Casella Waste Systems, Inc. 2016 Incentive Plan (incorporated herein by reference to Exhibit 99.1 to the Registration Statement on Form S-8 of Casella as filed on November 17, 2016 (file No. 333-214683)).</u>
10.29*	<u>Form of Restricted Stock Unit Agreement under 2016 Incentive Plan (employee with employment contract) (incorporated herein by reference to Exhibit 10.1 to the current report on Form 8-K of Casella as filed on November 22, 2016 (file No. 000-23211)).</u>
10.30*	<u>Form of Restricted Stock Unit Agreement under 2016 Incentive Plan (employee with no employment contract) (incorporated herein by reference to Exhibit 10.2 to the current report on Form 8-K of Casella as filed on November 22, 2016 (file No. 000-23211)).</u>
10.31*	<u>Form of Performance-Based Stock Unit Agreement under 2016 Incentive Plan (employee with employment contract) (incorporated herein by reference to Exhibit 10.3 to the current report on Form 8-K of Casella as filed on November 22, 2016 (file No. 000-23211)).</u>
10.32*	<u>Form of Performance-Based Stock Unit Agreement under 2016 Incentive Plan (employee with no employment contract) (incorporated herein by reference to Exhibit 10.4 to the current report on Form 8-K of Casella as filed on November 22, 2016 (file No. 000-23211)).</u>
10.33*	<u>Form of Restricted Stock Agreement under 2016 Incentive Plan (incorporated herein by reference to Exhibit 10.5 to the current report on Form 8-K of Casella as filed on November 22, 2016 (file No. 000-23211)).</u>
10.34*	<u>Form of Incentive Stock Option Agreement under 2016 Incentive Plan (employee with employment contract) (incorporated herein by reference to Exhibit 10.6 to the current report on Form 8-K of Casella as filed on November 22, 2016 (file No. 000-23211)).</u>
10.35*	<u>Form of Nonstatutory Stock Option Agreement under 2016 Incentive Plan (employee with employment contract) (incorporated herein by reference to Exhibit 10.7 to the current report on Form 8-K of Casella as filed on November 22, 2016 (file No. 000-23211)).</u>
10.36*	<u>Form of Incentive Stock Option Agreement under 2016 Incentive Plan (employee with no employment contract) (incorporated herein by reference to Exhibit 10.8 to the current report on Form 8-K of Casella as filed on November 22, 2016 (file No. 000-23211)).</u>
10.37*	<u>Form of Nonstatutory Stock Option Agreement under 2016 Incentive Plan (employee with no employment contract) (incorporated herein by reference to Exhibit 10.9 to the current report on Form 8-K of Casella as filed on November 22, 2016 (file No. 000-23211)).</u>
10.38*	<u>Form of Performance-Based Stock Option Agreement under 2016 Incentive Plan (employee with employment contract) (incorporated herein by reference to Exhibit 10.10 to the current report on Form 8-K of Casella as filed on November 22, 2016 (file No. 000-23211)).</u>
10.39*	<u>Form of Performance-Based Stock Option Agreement under 2016 Incentive Plan (employee with no employment contract) (incorporated herein by reference to Exhibit 10.11 to the current report on Form 8-K of Casella as filed on November 22, 2016 (file No. 000-23211)).</u>

Exhibit No.	Description
10.40*	<u>Form of Restricted Stock Unit Agreement under 2016 Incentive Plan (non-employee director) (incorporated herein by reference to Exhibit 10.1 to the quarterly report on Form 10-Q of Casella as filed on November 2, 2017 (file No. 000-23211)).</u>
10.41	<u>Amended and Restated Credit Agreement, dated as of December 22, 2021, among Casella, the subsidiaries of Casella identified therein, Bank of America, N.A., as administrative agent, Merrill Lynch, Pierce Fenner & Smith Incorporated, Citizens Bank, N.A., JPMorgan Chase Bank, N.A. and Comerica Bank as joint lead arrangers, and the lenders party thereto (incorporated herein by reference to Exhibit 10.1 to the current report on Form 8-K of Casella as filed on December 28, 2021 (file No. 000-23211)).</u>
10.42	<u>First Amendment, dated as of February 9, 2023, to Amended and Restated the Credit Agreement dated as of December 22, 2021, including Annex A to First Amendment (incorporated herein by reference to Exhibit 10.1 to the Current Report on Form 8-K of Casella as filed on February 9, 2023 (file no. 000-23211)).</u>
10.43	<u>Second Amendment, dated as of February 9, 2023, to Amended and Restated Credit Agreement dated as of December 22, 2021, including Annex A to Second Amendment (incorporated herein by reference to Exhibit 10.2 to the Current Report on Form 8-K of Casella as filed on February 9, 2023 (file no. 000-23211)).</u>
10.44	<u>Master Lease Agreement dated as of July 20, 2020 by and between Bank of America Leasing & Capital, LLC and Casella Waste Systems, Inc. (incorporated herein by reference to Exhibit 10.1 to the Current Report on Form 8-K of Casella as filed on July 22, 2020 (file no. 000-23211)).</u>
10.45	<u>Addendum to Master Lease Agreement No. 36629-90000 dated as of July 20, 2020 by and among Bank of America Leasing & Capital, LLC, Casella Waste Systems, Inc. and certain of its subsidiaries (incorporated herein by reference to Exhibit 10.2 to the Current Report on Form 8-K of Casella as filed on July 22, 2020 (file no. 000-23211)).</u>
10.46	<u>Purchase and Sale Agreement dated as of January 23, 2011 among Casella, KTI, CE Holdings II, LLC and CE Holding Company, LLC (incorporated herein by reference to Exhibit 2.1 to the quarterly report on Form 10-Q of Casella as filed on March 3, 2011 (file no. 000-23211)).</u>
21.1 +	<u>Subsidiaries of Casella Waste Systems, Inc.</u>
23.1 +	<u>Consent of RSM US LLP.</u>
31.1 +	<u>Certification of Principal Executive Officer required by Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended.</u>
31.2 +	<u>Certification of Principal Financial Officer required by Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended.</u>
32.1 +	<u>Certification of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes- Oxley Act of 2002.</u>
101.INS	The instance document does not appear in the interactive data file because its XBRL tags are embedded within the inline XBRL document.
101.SCH	Inline XBRL Taxonomy Extension Schema Document.**
101.CAL	Inline XBRL Taxonomy Calculation Linkbase Document.**
101.LAB	Inline XBRL Taxonomy Label Linkbase Document.**
101.PRE	Inline XBRL Taxonomy Presentation Linkbase Document.**
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document.**
104	Cover Page Interactive Data File (formatted as inline XBRL with applicable taxonomy extension information contained in Exhibits 101.)

+ Filed Herewith

* This is a management contract or compensatory plan or arrangement.

** Submitted Electronically Herewith. Attached as Exhibit 101 to this report are the following formatted in inline XBRL (Extensible Business Reporting Language): (i) Consolidated Balance Sheets as of December 31, 2022 and December 31, 2021, (ii) Consolidated Statements of Operations for fiscal years 2022, 2021 and 2020, (iii) Consolidated Statements of

Comprehensive Income for fiscal years 2022, 2021 and 2020, (iv) Consolidated Statement of Stockholders' Equity for fiscal years 2022, 2021 and 2020, (v) Consolidated Statements of Cash Flows for fiscal years 2022, 2021 and 2020, and (vi) Notes to Consolidated Financial Statements.

ITEM 16. FORM 10-K SUMMARY

Not applicable.

SIGNATURES

Pursuant to the requirements of the Section 13 or 15(d) of Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Casella Waste Systems, Inc.

Dated: February 17, 2023

By: /s/ John W. Casella

John W. Casella

Chairman of the Board of Directors and Chief
Executive Officer
(Principal Executive Officer)

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the date indicated.

Signature	Title	Date
<u>/s/ John W. Casella</u> John W. Casella	Chairman of the Board of Directors and Chief Executive Officer (Principal Executive Officer)	February 17, 2023
<u>/s/ Edmond R. Coletta</u> Edmond R. Coletta	President and Chief Financial Officer (Principal Financial Officer)	February 17, 2023
<u>/s/ Kevin J. Drohan</u> Kevin J. Drohan	Vice President and Chief Accounting Officer (Principal Accounting Officer)	February 17, 2023
<u>/s/ Douglas R. Casella</u> Douglas R. Casella	Director	February 17, 2023
<u>/s/ Joseph G. Doody</u> Joseph G. Doody	Director	February 17, 2023
<u>/s/ Rose Stuckey Kirk</u> Rose Stuckey Kirk	Director	February 17, 2023
<u>/s/ Gary Sovo</u> Gary Sovo	Director	February 17, 2023
<u>/s/ William P. Hulligan</u> William P. Hulligan	Director	February 17, 2023
<u>/s/ Michael K. Burke</u> Michael K. Burke	Director	February 17, 2023
<u>/s/ Michael L. Battles</u> Michael L. Battles	Director	February 17, 2023
<u>/s/ Emily Nagle Green</u> Emily Nagle Green	Director	February 17, 2023

NON-GAAP LIQUIDITY MEASURES:

In addition to disclosing financial results prepared in accordance with GAAP, the Company also discloses net cash provided by operating activities, less capital expenditures, plus proceeds from the sale of property and equipment, plus cash outflows associated with the Southbridge Landfill closure and Potsdam environmental remediation, plus cash outlays from acquisition activities, plus Waste USA Landfill phase VI capital expenditures, plus post acquisition and development project capital expenditures (“Adjusted Free Cash Flow”), which is a non-GAAP liquidity measure. Adjusted Free Cash Flow is reconciled to net cash provided by operating activities.

The Company presents non-GAAP liquidity measures, such as Adjusted Free Cash Flow, that provide an understanding of the Company’s liquidity because it considers them important supplemental measures of its liquidity that are frequently used by securities analysts, investors and other interested parties in the evaluation of the Company’s cash flow generation from its core operations that are then available to be deployed for strategic acquisitions, growth investments, development projects, unusual landfill closures, site improvement and remediation, and strengthening the Company’s balance sheet through paying down debt. The Company also believes that identifying the impact of certain items as adjustments provides more transparency and comparability across periods. Management uses non-GAAP liquidity measures to understand the Company’s cash flow provided by operating activities after certain expenditures along with its consolidated net leverage and believes that these measures demonstrate the Company’s ability to execute on its strategic initiatives. The Company believes that providing such non-GAAP liquidity measures to investors, in addition to corresponding cash flow statement measures, affords investors the benefit of viewing the Company’s liquidity using the same financial metrics that the management team uses in making many key decisions and understanding how the core business and cash flow generation has performed.

Non-GAAP liquidity measures are not in accordance with or an alternative for GAAP. Adjusted Free Cash Flow should not be considered in isolation from or as a substitute for financial information presented in accordance with GAAP, and may be different from Adjusted Free Cash Flow presented by other companies.

Non-GAAP Reconciliation of Adjusted Free Cash Flow to Net cash provided by operating activities			
	Fiscal year ended		Fiscal year ended
	Dec. 31, 2021		Dec. 31, 2022
Net cash provided by operating activities	\$	182,737	\$ 217,314
Capital expenditures		(123,295)	(130,960)
Proceeds from sale of property and equipment		788	600
Southbridge Landfill closure and Potsdam environmental remediation (i)		6,274	3,766
Cash outlays from acquisition activities (ii)		4,988	4,284
Waste USA Landfill phase VI capital expenditures (iii)		13,325	-
Post acquisition and development project capital expenditures (iv)		10,515	16,209
Adjusted Free Cash Flow	\$	95,332	\$ 111,213

(i) Southbridge Landfill closure and Potsdam environmental remediation are cash outlays associated with the unplanned closure of the Southbridge Landfill and the Company’s portion of costs associated with environmental remediation at Potsdam, which are added back when calculating Adjusted Free Cash Flow due to their non-recurring nature and the significance of the related cash flows. The Company initiated the unplanned closure of the Southbridge Landfill in the fiscal year ended December 31, 2017 and expects to incur cash outlays through completion of the closure and environmental remediation process. The Potsdam site was deemed a Superfund site in 2000 and is not associated with current operations.

(ii) Cash outlays from acquisition activities are cash outlays for transaction and integration costs relating to specific acquisition transactions and include legal, environmental, valuation and consulting as well as asset, workforce and system integration costs as part of the Company’s strategic growth initiative.

(iii) Waste USA Landfill phase VI capital expenditures related to the Company’s landfill in Coventry, Vermont (“Waste USA Landfill”) phase VI construction and development that are added back when calculating Adjusted Free Cash Flow due to the specific nature of this investment in the development of long-term infrastructure which is different from landfill construction investments in the normal course of operations. This investment at the Waste USA Landfill is unique because the Company is investing in long-term infrastructure over an estimated four year period that will not yield a positive economic benefit until 2023 and extending over approximately 20 years.

(iv) Post acquisition and development project capital expenditures are (x) acquisition related capital expenditures that are necessary to optimize strategic synergies associated with integrating newly acquired operations as contemplated by the discounted cash flow return analysis conducted by management as part of the acquisition investment decision; and (y) non-routine development investments that are expected to provide long-term returns. Acquisition related capital expenditures include costs required to achieve initial operating synergies and integrate operations.

Company Officers

John W. Casella

Chairman, Chief Executive Officer and Secretary

Edmond “Ned” R. Coletta

President and Chief Financial Officer

Sean M. Steves

Senior Vice President and Chief Operating Officer of Solid Waste Operations

Shelley E. Sayward

Senior Vice President, General Counsel

Kevin J. Drohan

Vice President & Chief Accounting Officer

Paul J. Ligon

Senior Vice President, Sustainable Growth

Board of Directors

John W. Casella

Chairman, Chief Executive Officer & Secretary
Casella Waste Systems, Inc.

Michael L. Battles

Co-President & Co-Chief Executive Officer,
Clean Harbors, Inc.

Michael K. Burke

Former Senior Vice President & Chief Financial Officer,
EndoGastric Solutions, Inc.

Douglas R. Casella

Vice President,
Casella Construction, Inc.

Joseph G. Doody

Former Vice Chairman,
Staples, Inc.

Emily N. Green

Former Chairman & Chief Executive Officer,
Yankee Group

William P. Hulligan

Former President & Chief Operating Officer,
Progressive Waste Solutions Ltd.

Rose Stuckey Kirk

Chief Corporate Social Responsibility Officer,
Verizon Communications Corporation

Gary Sova

Former Senior Vice President - Marketing & Sales,
Republic Services, Inc.

Shareholder Information

Casella Waste Systems, Inc.

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Telephone: 802-775-0325

Direct inquiries to:

Jason Mead
Telephone: 802-772-2293
E-mail: jason.mead@casella.com

Auditors

RSM US LLP
80 City Square, Boston, MA 02129

Legal Counsel

Wilmer Cutler Pickering Hale and Dorr LLP
60 State Street, Boston, MA 02109

Transfer Agent & Registrar

Computershare
PO Box 43006, Providence, RI 02940-3006
Shareholder Inquiries: 781-575-2879

Stock Exchange

Casella Waste System, Inc. is traded on the NASDAQ
Global Select Market under the ticker symbol “CWST.”



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