

**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, 2020
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"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth 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.

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, 2020 was approximately \$2,396 million. The registrant does not have any non-voting common stock outstanding.

There were 50,101,351 shares of Class A common stock, \$0.01 par value per share, of the registrant outstanding at February 15, 2021. There were 988,200 shares of Class B common stock, \$0.01 par value per share, of the registrant outstanding at February 15, 2021.

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 2021 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, 2020.

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, including statements regarding:

- the projected development of additional disposal capacity or expectations regarding permits for existing capacity;
- the outcome of any legal or regulatory matter;
- the expected and potential direct or indirect impacts of the novel coronavirus (“COVID-19”) pandemic on our business;
- 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.

In addition, 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.

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

Founded in 1975 with a single truck, Casella Waste Systems, Inc. is a regional, vertically integrated solid waste services company. We provide resource management expertise and services to residential, commercial, municipal 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 six states: Vermont, New Hampshire, New York, Massachusetts, 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 larger-scale recycling and commodity brokerage operations along with our organics services and large scale commercial and industrial services through our single resource-renewal focused Resource Solutions operating segment.

As of January 31, 2021, we owned and/or operated 46 solid waste collection operations, 58 transfer stations, 20 recycling facilities, eight Subtitle D landfills, four landfill gas-to-energy facilities and one landfill permitted to accept construction and demolition (“C&D”) materials.

Growth Strategy

Our goal is to build a sustainable and profitable company 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, 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 and the current market environment. 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 early August 2017, we announced an updated long-term strategic plan through our fiscal year ending December 31, 2021 (the "2021 Plan"). The 2021 Plan is focused on enhancing shareholder returns by improving cash flows and reducing debt leverage through the following strategic initiatives:

- Increasing landfill returns by driving pricing in excess of inflation in the disposal capacity constrained markets in the Northeast and working to maximize capacity utilization.
- Driving additional profitability in our collection operations through profitable revenue growth and operating efficiencies.
- Creating incremental value through our resource solutions offerings in our recycling, organics, and customer solutions lines-of-business.
- Using technology to drive profitable growth and efficiencies through our efforts to update key systems to drive back office transformation, operating efficiencies and sales force effectiveness.
- Allocating capital to balance debt delevering with smart growth through continued capital discipline and selective acquisitions of complementary businesses and assets.

To support our efforts, we continue to invest in our employees through leadership development, our career paths program that helps to build long-term development for our employees, 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. Over the last four years our workforce has increased by approximately 32%, and we believe that continuing to invest in our team and culture is key to our continued success.

Increasing Landfill Returns

Disposal capacity continues to tighten in the Northeast market as permanent site closures are reducing capacity and stronger economic and construction activity are driving higher volumes. Given this supply-demand imbalance and the positioning of our assets, we were able to advance landfill pricing by 7.0% (or average price per ton by 8.92%) for the fiscal year ended December 31, 2020 ("fiscal year 2020"), as compared to the fiscal year ended December 31, 2019 ("fiscal year 2019").

We believe that this positive pricing backdrop will continue as additional site closures are expected over the next several years, and as we reset multi-year contracts we expect to advance pricing in excess of the Consumer Price Index on a larger percentage of our inbound waste streams. In addition, we continue to focus our acquisition efforts on businesses and markets that are expected to increase vertical integration to our landfills in order to drive higher cash flows and to lower 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"), Schuyler 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 462,000 tons per year of permitted capacity and approximately 50.9 million cubic yards of permitted airspace.

Driving Additional Profitability in Collection Operations

Collection pricing was up 4.2% for fiscal year 2020, as compared to fiscal year 2019, with sustained execution against our strategic pricing programs. 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 in the collection line-of-business. We are in the sixth year of our comprehensive fleet plan, which 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 conduct additional automation and optimization of trucks and service types.

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 680 basis points from the twelve months ended December 31, 2014 to fiscal year 2020.

Creating Incremental Value Through Resource Solutions

In early fiscal year 2020, we combined our resource-oriented business units (customer solutions, recycling and organics) under a newly formed operating segment called Resource Solutions. By combining our resource and sustainability-oriented businesses into the Resource Solutions operating segment, we now have a dedicated team and business strategy focused on driving value-added resource solutions to our customers. These solutions range from professional services to large industrial, institutional or multi-site retail customers, to our organics business, which is a leader in organics processing and disposal in the Northeast, and to our large scale, technology-driven recycling business.

Our 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 meet their resource management and sustainability goals.

Over the last five years, 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”) 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. Our risk mitigation programs have offset most of the recent commodity price declines driven primarily by China’s National Sword program that banned the import of certain recycled materials and imposed strict new contamination standards for others, and we expect these programs to continue to reduce our commodity risk exposure.

Using Technology to Drive Profitable Growth and Efficiencies

We launched a five-year technology plan in August 2017 to drive profitable growth, reduce our general and administration costs by 75 to 100 basis points as a percentage of revenues by 2021, and improve our operating efficiencies. We have focused our efforts on improving our overall technology platform, driving salesforce effectiveness, and increasing efficiencies in our back-office and across our operations.

To date as part of our technology plan, we have successfully implemented: the Microsoft Dynamics Customer Resource Management system to help manage and drive higher salesforce effectiveness; the Microsoft Dynamics Case Management system to ensure strong integration between our salesforce, customer care group and operating teams; and the cloud-based NetSuite Enterprise Resource Planning system as the new financial backbone to our business.

During fiscal year 2020, we focused our technology efforts on: piloting a new on-board computing system and dynamic routing system for our collection fleet; developing a new modernized service management system for taking customer orders and dispatching our collection fleet; and launching a technology upgrade to digitize and streamline our procurement processes. We plan to continue to advance these important initiatives through the fiscal year ending December 31, 2021 (“fiscal year 2021”).

Allocating Capital to Balance Debt Delevering with Smart Growth

Over the last seven years we 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 by approximately 50% over the last six years to 2.76x as of December 31, 2020. 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 over our consolidated net leverage ratio.

Given our progress in each area and as part of the 2021 Plan, we shifted our capital strategy to use our capital in a manner that balances continued delevering with smart acquisition and development growth. As part of this strategy, we set a goal of adding \$20 million to \$40 million per year of annualized revenues through acquisition or development activity. We believe that acquisition or development activity should be opportunistic, and we plan to strictly adhere to our disciplined capital return hurdles and rigorous review process.

We have made significant progress ramping up our strategic growth initiative, as we have acquired 29 solid waste collection, transfer and recycling businesses during the fiscal year ended December 31, 2018 ("fiscal year 2018"), fiscal year 2019 and fiscal year 2020, with approximately \$148 million of annualized revenues. We expect revenue growth of approximately \$7 million in fiscal year 2021 from the full year of revenue from acquisitions completed in fiscal year 2020, but which contributed to our revenues for only part of the year in fiscal year 2020.

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.

Recent Developments

With the global outbreak of COVID-19 and the declaration of a pandemic by the World Health Organization in March 2020, the U.S. Government and all of the states in which we operate have declared the waste services industry as an essential services provider and as a result we are committed to continue to operate and provide our full breadth of services. We have prioritized the safety and well-being of our employees by strictly adhering to recommendations of the Centers for Disease Control and Prevention as well as executive orders of the states in which we operate.

The COVID-19 pandemic has caused, and will to continue to cause, economic disruption across our geographic footprint and has adversely affected, and is expected to continue to adversely affect, our business. The COVID-19 pandemic negatively impacted our revenues starting at the end of the first quarter of fiscal year 2020, as many small business and construction collection customers required service level changes and volumes into our landfills declined due to lower economic activity. Even with the continued negative impact of the COVID-19 pandemic, we did experience improved demand for services as local economies started to reopen as allowed by State Governments. This positive trend continued through December 31, 2020, as additional small business collection customers increased service levels, construction activity continued to rebound, and overall higher economic activity across the northeast led to higher landfill volumes. Despite these positive trends, our collection and disposal operations were negatively impacted by lower volumes attributable to the COVID-19 pandemic in fiscal year 2020, extending into the first quarter of fiscal year 2021.

The COVID-19 pandemic has negatively impacted and will continue to impact our business in other ways, as we have experienced and continue to experience increased costs in response to the COVID-19 pandemic, including, but not limited to, higher costs associated with providing a safe working environment for our employees (such as increased costs associated with the protection of our employees, including costs for additional safety equipment, hygiene products and enhanced facility cleaning), potential employee layoffs or furloughs, employee impacts from illness, supporting a remote administration workforce, community response measures, the inability of customers to continue to pay for services, and temporary closures of our facilities or the facilities of our customers. In early September 2020, we also paid a special bonus to all our hourly employees (both frontline and administrative) to recognize their hard work and commitment to safety, environmental compliance and high customer service standards as essential service providers during the COVID-19 pandemic. We have taken measures to reduce costs in other areas and preserve liquidity during this period of uncertainty. As of the date of this filing, we are unable to determine or predict the nature, duration or scope of the overall impact that the COVID-19 pandemic will have on our business, results of operations, liquidity and capital resources. For further information regarding the impact of the COVID-19 pandemic on us, see Item 1A, "Risk Factors" included in this Annual Report on Form 10-K.

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 and central and eastern Massachusetts. 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, northwestern 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. Our Western region collection operations include leadership positions in nearly every secondary market outside of the larger metropolitan markets. We remain focused on increasing our vertical integration in our Western region through extension of our reach into new markets and managing new materials.

We classify our resource-renewal services by service in our Resource Solutions operating segment. Our Resource Solutions operating segment derives its revenues from our recycling, customer solutions and organics lines-of-business. We restructured and formed the Resource Solutions operating segment as of January 1, 2020 to be able to leverage our core competencies in materials processing, industrial recycling, clean energy, and organics service offerings in order to generate additional value from the waste stream for larger commercial and industrial customers with more diverse needs.

The following table provides information about each operating segment (as of January 31, 2021 except revenue information, which is for fiscal year 2020):

	Eastern Region	Western Region	Resource Solutions
Revenues (in millions)	\$220.3	\$358.0	\$196.3
Number of Properties:			
Solid waste collection facilities	17	29	—
Transfer stations	24	34	—
Recycling facilities	3	6	11
Subtitle D landfills	2	6	—
C&D landfills	—	1	—

See our consolidated financial statements included under Item 8, “Financial Statements and Supplementary Data” of this Annual Report on Form 10-K for our financial results for fiscal years 2020, 2019 and 2018, and our financial position as of December 31, 2020 and December 31, 2019.

Solid Waste Operations

Solid waste operations within our Eastern and Western regions comprise a full range of non-hazardous solid waste services, including collections, 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 households. 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.

Collections. 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, compact 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; (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 2020, 2019 and 2018:

	Fiscal Year 2020			Fiscal Year 2019			Fiscal Year 2018		
	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	44,434	34,139	78,573	35,810	47,053	82,863	36,159	46,301	82,460
New expansions pursued (3)	—	—	—	—	648	648	—	—	—
Permits granted (4)	993	(993)	—	12,675	(12,675)	—	—	—	—
Airspace consumed	(3,594)	—	(3,594)	(4,048)	—	(4,048)	(4,160)	—	(4,160)
Changes in engineering estimates (5)	848	(1,907)	(1,059)	(3)	(887)	(890)	3,811	752	4,563
Balance, end of year	42,681	31,239	73,920	44,434	34,139	78,573	35,810	47,053	82,863

- (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 in fiscal year 2019 relates to the determination of additional permittable airspace at the NCES Landfill in our Eastern region.
- (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 and, in fiscal year 2019, was the result of permits received at the Waste USA Landfill and at the Hakes Landfill in our Western 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 gas-to-energy plant, which will be constructed, owned and operated by a third-party once completed.

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 gas-to-energy plant at the Juniper Ridge Landfill, which will be constructed, owned and operated by a third-party.

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 is a Subtitle D landfill located in Schuyler Falls, New York. Clinton County Landfill, which currently consists of approximately 197 acres of permitted or permittable landfill area, portions of which are leased from Clinton County, is permitted to accept up to approximately 0.25 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 121 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 material 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 78 acres of permitted 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 0.3 million tons of municipal solid waste, C&D material and certain pre-approved special waste annually. The facility permit authorizes the construction of the rail siding at the landfill which if completed, would expand the market reach for the landfill to other rail capable transfer facilities. We have not yet committed to the construction of the rail siding pending a determination of the economic viability. We believe that McKean Landfill is well situated to provide services to the oil and gas industry that explores natural gas resources in the Marcellus Shale region of Pennsylvania in the form of disposal capacity for residual materials.

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.

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

Resource solutions services consist of tailored offerings to commercial and industrial customers with more diverse needs, and revenues associated with our resource-renewal operations are derived from organics services, large scale commercial and industrial services, as well as recycling services.

Organics. Our organics line-of-business has been working to develop and/or partner with firms that have developed innovative approaches to deriving incremental value from the organic portion of the waste stream. Organics services primarily consist of the collection and/or receipt of organic materials at one of our processing or disposal facilities; the processing of the organic materials; and the disposal or sale of the organic materials. Through our earthlife® soils products, we offer a wide array of organic fertilizers, composts, and mulches that help our customers recycle organic waste streams. We also have ownership interests in AGreen Energy, LLC and BGreen Energy, LLC, which we account for as cost method investments, that partner with other capital investors to build farm-based anaerobic digesters in the northeastern United States to generate electricity from farm and food waste streams.

Customer Solutions. Our customer solutions line-of-business works 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 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. Commercial services consist of traditional collection, disposal and recycling services provided to large account multi-site customers. Industrial services consist of overall resource management services provided to large and complex organizations, such as universities, hospitals, manufacturers and municipalities, delivering a wide range of environmental services and zero waste solutions.

Recycling. Our recycling line-of-business is one of the largest processors and marketers of recycled materials in the northeastern United States. Our recycling line-of-businesses facilities are located in Vermont, New York, Maine, and Massachusetts, including our six 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, and one of which is located in Maine. Two of the six MRFs are leased, three are owned, and one is operated by us under a contract with 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. Recycling services primarily consist of the collection and/or receipt of recycled materials at one of our MRFs; the processing or sorting of the recycled materials; and the disposal or sale of the recycled materials. In fiscal year 2020, our recycling line-of-business processed and/or marketed over 0.6 million tons of recyclable materials including tons marketed through our commodity brokerage division and our baling facilities located throughout our footprint, including just under 0.5 million tons per year of recycled materials delivered to them by municipalities and commercial customers under long-term contracts.

Revenues from recycling services consist of revenues derived from municipalities and customers in the form of processing fees, tipping fees and commodity sales. A substantial portion of the material provided to our recycling line-of-business is delivered pursuant to multiple significant 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 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.

Our recycling line-of-business has historically derived a significant portion of its revenues from the sale of recyclable materials, particularly newspaper, corrugated containers, plastics, ferrous and aluminum. The pricing for these materials can fluctuate based upon market conditions. However, we have actively worked to reduce our risk exposure to commodity pricing volatility over the last five years through our efforts to shift customers to a processing fee model and other risk management programs. In fiscal year 2020, we generated 44.0% of recycling line-of-business revenues from commodity sales as compared to 86.5% in the fiscal year ended December 31, 2016.

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 offset 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.

At times, we also hedge against fluctuations in the commodity prices of recycled paper and corrugated containers in order to mitigate the variability in cash flows and earnings generated from the sales of recycled materials at floating prices. As of December 31, 2020, no such commodity hedges were in place. The global recycling market has experienced negative commodity pricing pressure resulting from China's National Sword program in 2017. Markets continued to decline through 2019 and early 2020, leveling off at historical lows compared to prior years. Throughout the remainder of 2020 markets moderately rebounded; however, we expect markets to remain depressed as compared to levels before China's National Sword program into the foreseeable future.

See Note 20, *Segment Reporting* to our consolidated financial statements included under Item 8, "*Financial Statements and Supplementary Data*" of this Annual Report on Form 10-K for a summary of revenues, certain expenses, profitability, capital expenditures, goodwill, and total assets of our operating segments.

Competition

The solid waste services industry is highly competitive. We compete for collection and disposal volume primarily on the basis of the quality, breadth and price of our services. 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.

Our business strategy generally focuses on operating in secondary or tertiary markets where we have a leading market share. 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. 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 transport to move 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.

Marketing and Sales

We have fully integrated sales and marketing strategies with a primary focus on acquiring and retaining commercial, industrial, municipal and residential customers. Our business strategy focuses on creating a highly differentiated sustainable resource management model that meets customers' unique needs and provides value "beyond the curb".

Maintenance of a local presence and identity is an important aspect of our sales and marketing strategy, and many of our divisional managers are involved in local governmental, civic and business organizations. Our name and logo, or, where appropriate, that of our divisional operations, are displayed on all of our containers and trucks. We attend and make presentations at municipal and state meetings, and we advertise in a variety of media throughout our service footprint.

The customer solutions line-of-business serves customers with multiple locations and is focused on growing our share of business with municipal, institutional, commercial and industrial customers. This group leverages the 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.

Marketing activities are focused on retaining existing customers and attracting new commercial and residential customers directly on-route in order to enhance profitability. Marketing campaigns are integrated with divisional management teams, sales personnel and the centralized customer care center.

Human Capital

Our mission is to create value by renewing and sustaining our resources and environment. We believe that one of the most important factors in achieving our mission is to hire and develop employees who make good decisions for our business, customers and communities by adhering to our *core values* of service, trust, responsibility, integrity, continuous improvement and teamwork. 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, 2021, we employed approximately 2,500 employees, including approximately 500 managerial, sales, clerical, information systems or other administrative employees and approximately 2,000 employees involved in collection, transfer, disposal, recycling, organics or other operations. Approximately 160 of our employees are covered by collective bargaining agreements.

Health, Safety and Wellness

A top priority in 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 ("PPE"), to safely conduct their role. The success of our safety programs and the performance of our health and safety and operating 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 helps us to manage and reduce operational risks for our front-line employees. This is more important than ever with the ongoing COVID-19 pandemic.

Waste management has been classified as Critical Infrastructure Industry by the Department of Homeland Security and as an Essential Service Provider by state governments. To achieve our goal of keeping our employees safe during the COVID-19 pandemic, we have maintained careful adherence to Center for Disease Control and Prevention and state level guidance, including appropriate social distancing, increased cleaning of facilities, and updated PPE and safe practices. In early September 2020, we paid a special bonus to all our hourly employees (both frontline and administrative) to recognize their hard work and commitment to safety, environmental compliance and high customer service standards as essential service providers during the COVID-19 pandemic.

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 people 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.

Our partnerships with great companies allow us to provide our employees with enhanced benefits such as a concierge surgery service, telemedicine options, access to a 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. We strive to attract and retain exceptional talent. 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 and Inclusion

Our commitment to workplace diversity and to fostering a culture of inclusion is rooted in our *core values* of service, trust, responsibility, integrity, continuous improvement and teamwork. 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 and inclusion;
- incorporating diversity and inclusion practices as part of our ongoing efforts to upgrade our procurement system and practices; and
- establishing an internal diversity and inclusion team that will include broad representation from our workforce and will be led by a member of our executive management team.

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.
- *CDL 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 2019, we supported 45 drivers in securing their CDL, which unlocked new opportunities for them within our company.
- *Operations Training:* Our operations training program develops individuals into frontline management roles. Through on-the-job training, participants learn the technical and leadership skills required to lead our hauling operations. This program has become a strong pipeline for our operating managers across our company.

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 the risk factor titled "*Our insurance coverage and self-insurance reserves may be inadequate to cover all significant risk exposures*" in Item 1A, "*Risk Factors*" of this Annual Report on Form 10-K. See also Item 3, "*Legal Proceedings*" and 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.

We self-insure for automobile and workers' compensation coverage with reinsurance coverage limiting our maximum exposure. Our maximum exposure in fiscal year 2020 under the workers' compensation plan was \$1.25 million per individual event. Our maximum exposure in fiscal year 2020 under the automobile plan was \$3.65 million per individual event.

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, 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; 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.

Our recycling line-of-business provides recycling services to municipalities, commercial haulers and commercial waste generators within the geographic proximity of the processing facilities.

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; and
- decreased tourism in Vermont, New Hampshire, Maine and eastern New York during the winter months tends to lower the volume of waste generated by commercial and restaurant customers, which is partially offset by increased volume from the ski industry.

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 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 recycling line-of-business experiences increased volumes of fiber in November and December due to increased retail activity during the holiday season.

Regulation

Introduction

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. Failure to comply with such requirements could result in substantial costs, including civil and criminal fines and penalties. 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.

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.

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 landfills 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.

Massachusetts revised its regulations governing solid waste management with a framework to encourage the re-use of organic waste material and prohibiting such material from disposal for large-scale commercial generators by October 2014. In September 2020, the Massachusetts Department of Environmental Protection proposed amendments to the state's waste ban regulations to add mattresses and textiles as materials banned from disposal, and to lower the threshold of the existing commercial organics material waste ban.

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, which will require certain generators to separate and donate or recycle food scraps starting in 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. If broad EPR laws or regulations were adopted and 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 also 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 can also include the development of new or more stringent standards for "Emerging Contaminants", including per- and polyfluoroalkyl substances, pharmaceutical compounds, and a variety of synthetic chemical compounds used in manufacturing and industrial processes. In December 2016, EPA also 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. 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	70	Chairman of the Board of Directors, Chief Executive Officer and Secretary
Edwin D. Johnson	64	President and Chief Operating Officer
Edmond "Ned" R. Coletta	45	Senior Vice President and Chief Financial Officer
Christopher B. Heald	56	Vice President and Chief Accounting Officer
Shelley E. Sayward	46	Senior Vice President and General Counsel

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 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 and local boards and commissions, including the Vermont State Chamber of Commerce, the Rutland Industrial Development Corporation and the Rutland Regional Medical Center. Mr. Casella has also served on various state task forces, serving in an advisory capacity to the Governors of Vermont and New Hampshire on solid waste issues. Mr. Casella holds an A.S. in Business Management from Bryant & Stratton College and a B.S. in Business Education from Castleton State College.

Edwin D. Johnson has served as our President and Chief Operating Officer since December 2012 and as our Senior Vice President and Chief Financial Officer from July 2010 until December 2012. From March 2007 to July 2010, Mr. Johnson served as Executive Vice President, Chief Financial Officer and Chief Accounting Officer at Waste Services, Inc, a solid waste services company. From November 2004 to March 2007, Mr. Johnson served as Chief Financial Officer of Expert Real Estate Services, Inc., a full service real estate brokerage company. Mr. Johnson is a Certified Public Accountant and holds an MBA from Florida International University and a Bachelor of Science in Accounting and Administration from Washington & Lee University.

Edmond “Ned” R. Coletta has served as our Senior Vice President, Chief Financial Officer and Treasurer since December 2012. Mr. Coletta joined us in December 2004 and has served in positions of increasing responsibility, including as our Vice President of Finance and Investor Relations from January 2011 to December 2012. Prior to that Mr. Coletta served 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 holds an MBA from the Tuck School of Business at Dartmouth College and a Bachelor of Science in Materials Science Engineering from Brown University.

Christopher B. Heald has served as our Vice President of Finance and Chief Accounting Officer since January 2013. Mr. Heald joined us in September 2001 and has served in positions of increasing responsibility, including as our Director of Financial Reporting and Analysis from July 2010 to January 2013 and as our Accounting Manager from August 2002 to July 2010. Mr. Heald is a Certified Public Accountant and holds a Bachelor of Science in Business Administration from the University of Vermont.

Shelley E. Sayward has served as our Senior Vice President and General Counsel since January 2021. Ms. Sayward has served in various roles in the legal department since November 2006, most recently as our Vice President and Assistant General Counsel from September 2014 to January 2021 and as 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 admitted to the Bar in the State of Vermont.

Availability of Reports and Other Information

Our website is www.casella.com. We make available, free of charge through our website, our Annual and Transition Reports on Form 10-K and 10-KT, 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.

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

The COVID-19 pandemic and related decline in economic activity has adversely affected, and will continue to adversely affect, our business, outlook, liquidity and results of operations, and we have experienced and expect to continue to experience reductions in demand for certain of our services.

The COVID-19 pandemic has caused, and will continue to cause, economic disruption across our geographic footprint. Although as an essential service provider we have continued our operations, the COVID-19 pandemic negatively impacted our revenues starting at the end of the first quarter of 2020 and through the fourth quarter of 2020 and into the first quarter of 2021, as some of our commercial collection customers requested service level decreases, construction activity decreased and volumes into our landfills declined on lower economic activity. The decline in our customers' demand for our services and reduced volumes into our landfills has had, and is likely to continue to have, an adverse impact on our financial condition, results of operations and cash flows.

We are closely monitoring and evaluating the potential impacts that the COVID-19 pandemic may have on our business as well as our customers and employees. Due to the uncertain and evolving nature of economic conditions, we are unable to predict accurately the full extent of the impact and effects that the COVID-19 pandemic will have on our business going forward. We currently expect, however, that the COVID-19 pandemic will continue to negatively impact our financial performance going forward. The COVID-19 pandemic has negatively impacted and may continue to impact our business in other ways, including, but not limited to, higher costs associated with providing a safe working environment for our employees, potential employee layoffs or furloughs, employee impacts from illness, supporting a remote administration workforce, community response measures, the inability of customers to continue to pay for services, and temporary closures of our facilities or the facilities of our customers.

The extent of the effects of the COVID-19 pandemic on our business, results of operations and cash flows will ultimately depend on future developments. These include, but are not limited to, the availability and effectiveness of vaccines and therapeutics, the severity, extent and duration of the pandemic; actions taken by national, state and local governments to contain the pandemic or treat its impact; the speed and effectiveness of responses to combat the pandemic; the effect of the changes in hiring levels and remote working arrangements that we and our customers have implemented; and the impact on our contracts with customers and vendors. The COVID-19 pandemic 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.

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.

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 increasingly competing with 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.

We also experience competition in our hiring of drivers and mechanics necessary to service our customers. 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. 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.

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. 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 any potential future acquisitions, 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 liability, 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 a liability 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 flow.

The waste management industry is undergoing fundamental change as traditional waste streams are increasingly viewed as renewable resources, which may adversely affect volumes and tipping fees at our landfills.

As we continue to develop our landfill capacity, the waste management industry is recognizing the value of the waste stream as a renewable resource, and accordingly, alternatives to landfilling are being developed that seek to maximize the renewable energy and other resource benefits of solid waste. These alternatives affect the demand for landfill airspace, and could affect our ability to operate our landfills at full capacity, as well as the tipping fees and prices that waste management companies generally, and that we, in particular, can charge for landfill airspace. Reduced tipping fees can affect our willingness to incur the expenditures necessary to increase the permitted capacity of the landfills. As a result, our revenues and operating margins could be materially adversely affected due to these disposal alternatives.

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. 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.

In addition to complying with environmental laws and regulations, 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. We may not be successful in obtaining new landfill or transfer station sites or expanding the permitted capacity of any of our current landfills and transfer stations. If we are unable to develop additional disposal and transfer station capacity, our ability to achieve economies 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. For information about a claim relating to the permitting of our new landfill in Dalton, New Hampshire and our NCES Landfill, 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

We have historically grown through acquisitions, may make additional acquisitions in the future, and 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 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. As of December 31, 2020, we have recorded a \$0.9 million environmental remediation liability for the estimated cost of our share of work associated with a consent order issued by the State of New York to remediate a scrap yard and solid waste transfer station owned by one of our acquired subsidiaries, including the recognition of accretion expense, and a \$4.3 million environmental remediation liability related to our obligation associated with installation of a municipal waterline associated with Southbridge Recycling & Disposal Park, Inc. discussed in 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, including the recognition of accretion expense in other accrued liabilities and other long-term liabilities. There can be no assurance that the cost of such cleanup or that our share of that cost will not exceed our estimates.

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. For information about the material outstanding claims against us and our subsidiaries, 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.

We may not have sufficient insurance coverage for our environmental liabilities, such coverage may not cover all of the potential liabilities we may be subject to and/or we may not be able to obtain insurance coverage in the future at reasonable expense, or at all.

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 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 and, therefore, may impact our results or increase our costs or liabilities.

In certain jurisdictions, we are subject to compliance with specific obligations under competition laws due to our competitive position in those jurisdictions. For example, in May 2002, we entered into an assurance of discontinuance with the Vermont Attorney General's Office concerning, among other matters, the conduct of our business in Vermont relating to certain contract terms applicable to our small commercial container customers. In August 2011, a revised final judgment of consent and order was entered by the Vermont Superior Court Washington Unit, Civil Division, as a result of some of our small commercial container customers having been mistakenly issued contracts that did not strictly comply with the terms of the assurance of discontinuance. Pursuant to the order, we paid a civil penalty in an aggregate amount of \$1.0 million. In July 2014, we entered into an assurance of discontinuance with the office of the New York Attorney General in connection with certain of our commercial practices in certain specified counties in New York, pursuant to which we paid the State of New York a sum of \$0.1 million. The assurances of discontinuance and order provide for certain restrictions on our customer contract terms, certain conditions on our business acquisitions, sales and market share and require us to maintain an internal compliance program. 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.

Our results of operations are affected by low commodity prices and diminished markets for recyclable materials.

Our results of operations have been and will continue to be affected by falling purchase or resale prices or market requirements for recyclable materials. Our recycling business involves the purchase and sale of recyclable materials, some of which are priced on a commodity basis. The commodity markets continue to see ongoing negative pressure on pricing associated with the decline of the fiber market due to less use of paper products such as newspaper and office paper as a result of increased online reading. As a result of these market changes, domestic demand for various recycled fibers from mill buyers has steadily declined over the past decade, and as such until 2017 we had exported more of these materials overseas to China. In 2017, China launched a campaign called National Sword which imposed significant restrictions on the importation into China of recyclable materials, including a complete ban on the import into China of mixed paper and new quality standards for contaminants in recyclable materials commencing January 1, 2018. Furthermore, China issued limited import licenses for its mills to import recyclable commodities, resulting in a decrease of over 50% of imports of recyclable commodities into China. These factors have had a significant impact on our business and have required us to seek alternative export markets for recyclable commodities.

In addition, some of the countries that took recyclable commodities following China's imposition of restrictions, including Indonesia and India, have themselves imposed similar restrictions on U.S. exports, further impacting prices. 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. We seek to limit our exposure to fluctuating commodity prices through: our revenue sharing contracts that share commodity prices above a threshold level or charge a tipping fee below the threshold; our net commodity rate formula that allows us to pass back higher costs to sell commodities, including higher labor costs or equipment costs to meet new quality standards; our floating sustainability recycling adjustment fee that passes back the cost of recycling to our collection customers; and as applicable, the use of hedging agreements, floor price contracts and long-term supply contracts with customers. 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.

Our business requires a high level of capital expenditures.

Our business is capital intensive. Our capital expenditure requirements include fixed asset purchases and capital expenditures for landfill development and cell construction, as well as site and cell closure. We use a substantial portion of our cash flows from operating activities toward capital expenditures, which reduces our flexibility to use such cash flows for other purposes, such as reducing our indebtedness. Our capital expenditures could increase if we make acquisitions or further expand our operations, or as a result of factors beyond our control, such as changes in federal, state or local governmental requirements. The amount that we spend on capital expenditures may exceed current expectations, which may require us to obtain additional funding for our operations or impair our ability to grow our business.

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 include a limited pilot of a new service management system, on-board computers, dynamic route optimization, procurement optimization, 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.

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 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 our employees to be able to process transactions and provide information that we feel is necessary to manage our business. Such uses 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 cyber security risks associated with acquisitions and new initiatives, we may become increasingly vulnerable to such risks. Additionally, while we have implemented measures to prevent security breaches and cyber incidents, our preventive or detection measures and incident response efforts may not be entirely effective, especially as cyber security 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 and New York. 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.

Fluctuations in fuel costs 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. Because fuel is needed to run our fleet of trucks, price escalations for fuel increase our operating expenses. In fiscal year 2020, we used approximately 6.7 million gallons of diesel fuel in our solid waste operations. Although we have an Energy and Environmental fee program, which includes an Energy component that floats on a monthly basis based on diesel fuel prices, contractual restrictions and competitive conditions may impact our opportunity to pass this fee on to our customers in all circumstances.

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

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, 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.

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, pending 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 pending acquisition that is not consummated; (3) any landfill or development project that is not expected to be successfully completed; and (4) 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. These include 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.

Our transfer and disposal revenues historically have been higher in the late spring, summer and early fall months. 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; and
- decreased tourism in Vermont, Maine and eastern New York during the winter months tends to lower the volume of solid waste generated by commercial and restaurant customers, which is partially offset by increased volume from the ski industry.

Since certain of our operating and fixed costs remain constant throughout the fiscal year, operating income is impacted by a similar seasonality. In addition, particularly harsh weather conditions typically result in increased operating costs.

Adverse weather conditions 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. 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, 2021, approximately 6% 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.

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, 2020, we had approximately \$548.4 million of outstanding principal indebtedness (excluding approximately \$26.4 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"). The Credit Facility consists of the Term Loan Facility with term loans in the outstanding principal amount of \$350.0 million and the Revolving Credit Facility with loans thereunder being available up to an aggregate principal amount of \$200.0 million, of which \$173.6 million of unused commitments remain under the Revolving Credit Facility, subject to customary borrowing conditions. As of December 31, 2020, we also had approximately \$154.3 million in cash and cash equivalents available for any future payment obligations. In addition, the terms of our existing indebtedness permit us to incur additional debt. Our debt, among other things:

- requires us to dedicate a portion of any available cash and cash equivalents or cash flow from operations to the payment of interest and principal due under our debt, which reduces funds available for other business purposes, including capital expenditures and acquisitions;
- may place us at a competitive disadvantage compared with some of our competitors that may have less debt and better access to capital resources; and
- limits our ability to obtain additional financing required to fund working capital and capital expenditures and for other general corporate purposes, but does allow us to increase the amount of our debt substantially subject to the conditions in the Credit Facility.

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. Our business may not generate sufficient cash flow, and future financings may not be available to provide sufficient net proceeds, to meet these obligations or to successfully execute our business strategy.

A portion of our indebtedness bears interest at variable rates. To the extent interest rates rise from current levels, we may incur higher levels of interest expense on our variable rate debt. We have sought to mitigate against adverse movements in interest rates by entering into: fixed interest rate debt instruments; and interest rate derivative agreements to hedge the variable rate portion of our long-term debt.

As of December 31, 2020, our interest rate derivative agreements have a total notional amount of \$190.0 million. According to the terms of the agreements, we receive interest based on the 1-month LIBOR index and pay interest at a weighted average rate of approximately 2.5%. The agreements mature between February 2021 and May 2023. Additionally, we have forward starting interest rate derivative agreements with a total notional amount of \$125.0 million that mature between February 2026 and May 2028. We receive interest based on the 1-month LIBOR index, restricted by a 0.0% floor, and will pay interest at a weighted average rate of approximately 1.6%. While our interest rate derivative counterparties are large financial institutions that we believe are well capitalized, if one or more of our interest rate derivative counterparties fails to perform under the terms of their agreements with us, we may not receive payments due under the applicable agreement(s) and the derivatives may prove to be ineffective in hedging our interest rate risk.

The Credit Facility requires us to meet a number of financial ratios and covenants.

The Credit Facility contains certain affirmative and negative covenants which, among other things and subject, in certain cases, to certain basket amounts and other exceptions, limit the existence of additional indebtedness, the existence of liens or pledges, certain investments, acquisitions and sales or other transfers of assets, the payment of dividends and distributions and repurchases of equity, prepayments of certain junior indebtedness, and certain other transactions. Our ability to comply with these covenants may be affected by events beyond our control, including prevailing economic, financial and industry conditions. These covenants could have an adverse effect on our business by limiting our ability to take advantage of financing, merger and acquisition or other corporate opportunities. Additionally, the Credit Facility requires, solely for the benefit of the lenders under the Revolving Credit Facility, that we meet financial tests, including, without limitation:

- minimum consolidated EBITDA to consolidated cash interest charges ratio; and
- maximum consolidated funded debt (net of up to an agreed amount of cash and cash equivalents) to consolidated EBITDA ratio.

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, all of which are beneficially owned by John W. Casella, our Chairman and Chief Executive Officer, and his brother, Douglas R. Casella, a member of our Board of Directors, and which is entitled to ten votes per share. 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, 2021, 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, 2021, 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 17.2% 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 if investors attribute value to the superior voting rights of our Class B common stock and the power those rights confer.

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, 2021, 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; 58 transfer stations, 32 of which we own, eight of which we lease and 18 of which we operate under a contract; 46 solid waste collection facilities, 28 of which we own, 17 of which we lease and one of which we operate under a contract; 20 recycling processing facilities, ten of which we own, seven of which we lease and three of which we operate under a contract; four landfill gas-to-energy facilities that we own; and 24 corporate office and other administrative facilities, five of which we own and 19 of which we lease (See 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.

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, 2021, there were approximately 500 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.

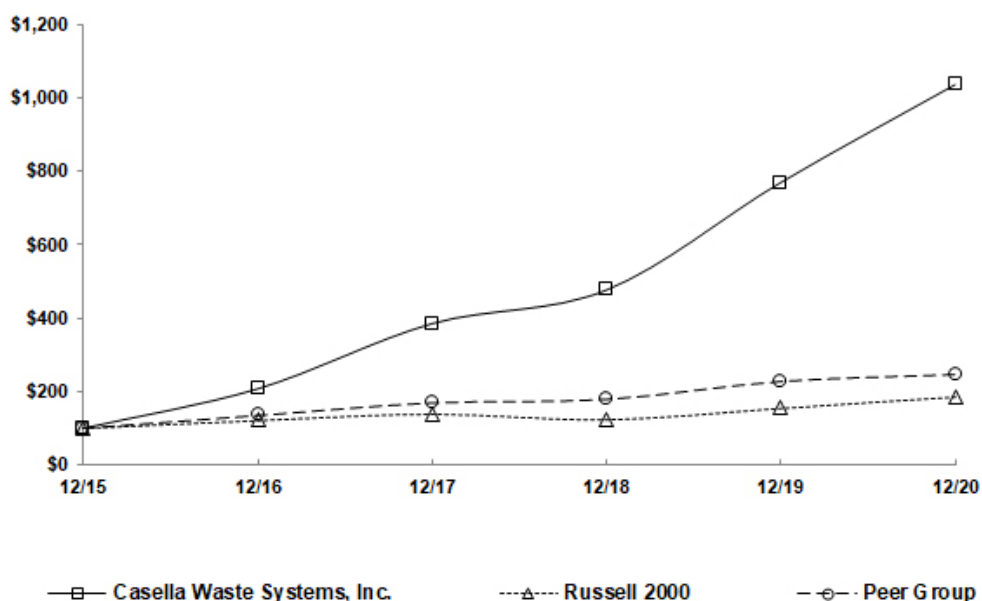
Stock Performance Graph

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, 2015 through December 31, 2020, with the cumulative total return on the Russell 2000 Index and our Industry Peer Group ("Peer Group"). The stock performance graph assumes the investment on December 31, 2015 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 12/31/15 in stock or index, including reinvestment of dividends. Fiscal year ending December 31.

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	December 31, 2015	December 31, 2016	December 31, 2017	December 31, 2018	December 31, 2019	December 31, 2020
Casella Waste Systems, Inc.	\$ 100.00	\$ 207.53	\$ 384.95	\$ 476.42	\$ 769.73	\$ 1,035.95
Russell 2000	\$ 100.00	\$ 121.31	\$ 139.08	\$ 123.76	\$ 155.35	\$ 186.36
Peer Group (1)	\$ 100.00	\$ 135.30	\$ 170.01	\$ 179.83	\$ 229.04	\$ 248.12

(1) The Peer Group is comprised of Waste Connections Inc., Covanta Holding Corp., Waste Management, Inc. and Republic Services, Inc.

ITEM 6. SELECTED FINANCIAL DATA

The selected consolidated financial and operating data set forth below was derived from the consolidated financial statements included in Item 8, "Financial Statements and Supplementary Data" of this Annual Report on Form 10-K and from the consolidated financial statements included in Item 8, "Financial Statements and Supplementary Data" of previous Annual Reports on Form 10-K that we filed with the Securities and Exchange Commission. This information should be read in conjunction with Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and notes thereto included in Item 8, "Financial Statements and Supplementary Data" of this Annual Report on Form 10-K.

	Fiscal Year Ended December 31,				
	2020	2019	2018	2017	2016
Statement of Operations Data:	(in thousands, except per share data)				
Revenues	\$ 774,584	\$ 743,290	\$ 660,660	\$ 599,309	\$ 565,030
Cost of operations	515,646	508,656	453,291	405,188	381,973
General and administration	102,410	92,782	84,791	79,243	75,356
Depreciation and amortization	90,782	79,790	70,508	62,102	61,856
Southbridge Landfill closure charge, net	4,587	2,709	8,054	65,183	—
Expense from acquisition activities and other items	1,862	2,687	1,872	176	—
Withdrawal costs - multiemployer pension plan	—	3,591	—	—	—
Contract settlement charge	—	—	2,100	—	—
Development project charge	—	—	311	—	—
Environmental remediation charge	—	—	—	—	900
Operating income (loss)	59,297	53,075	39,733	(12,583)	44,945
Interest expense, net	22,068	24,735	26,021	24,887	38,652
Other (income) expense, net	(1,073)	(1,439)	7,676	(418)	12,657
Income (loss) before income taxes	38,302	29,779	6,036	(37,052)	(6,364)
(Benefit) provision for income taxes	(52,804)	(1,874)	(384)	(15,253)	494
Net income (loss)	91,106	31,653	6,420	(21,799)	(6,858)
Less: Net loss attributable to noncontrolling interests	—	—	—	—	(9)
Net income (loss) attributable to common stockholders	\$ 91,106	\$ 31,653	\$ 6,420	\$ (21,799)	\$ (6,849)
Basic earnings (loss) per share attributable to common stockholders:					
Weighted average common shares outstanding	48,793	47,226	42,688	41,846	41,233
Basic earnings (loss) per common share (1)	\$ 1.87	\$ 0.67	\$ 0.15	\$ (0.52)	\$ (0.17)
Diluted earnings (loss) per share attributable to common stockholders:					
Weighted average common shares outstanding	49,045	47,966	44,168	41,846	41,233
Diluted earnings (loss) per common share (1)	\$ 1.86	\$ 0.66	\$ 0.15	\$ (0.52)	\$ (0.17)

	Fiscal Year Ended December 31,				
	2020	2019	2018	2017	2016
Other Data:					
Capital expenditures	\$ 108,108	\$ 103,165	\$ 73,232	\$ 64,862	\$ 54,238
Cash flows provided by operating activities	\$ 139,922	\$ 116,829	\$ 120,834	\$ 107,538	\$ 80,434
Cash flows used in investing activities	\$ (140,032)	\$ (177,462)	\$ (164,197)	\$ (76,447)	\$ (62,964)
Cash flows provided by (used in) financing activities	\$ 150,981	\$ 60,097	\$ 45,375	\$ (31,640)	\$ (18,585)
Balance Sheet Data:					
Cash and cash equivalents	\$ 154,342	\$ 3,471	\$ 4,007	\$ 1,995	\$ 2,544
Working capital, net (2)	\$ (38,296)	\$ (31,247)	\$ (18,411)	\$ (6,184)	\$ (6,382)
Property, plant and equipment, net	\$ 510,512	\$ 443,825	\$ 404,577	\$ 361,547	\$ 398,466
Goodwill	\$ 194,901	\$ 185,819	\$ 162,734	\$ 122,605	\$ 119,899
Total assets	\$ 1,193,898	\$ 932,182	\$ 732,410	\$ 614,949	\$ 631,512
Debt, less current portion	\$ 530,411	\$ 509,021	\$ 542,001	\$ 477,576	\$ 503,961
Total stockholders' equity (deficit)	\$ 362,142	\$ 122,753	\$ (15,832)	\$ (37,862)	\$ (24,550)

- (1) Computed as described in Note 3, *Summary of Significant Accounting Policies* to the consolidated financial statements included in Item 8, "Financial Statements and Supplementary Data" of this Annual Report on Form 10-K.
- (2) Working capital, net is defined as current assets, excluding cash and cash equivalents, minus current liabilities.

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 the fiscal year ended December 31, 2019 ("fiscal year 2019") compared to the fiscal year ended December 31, 2018 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, 2019 as filed with the Securities and Exchange Commission on February 21, 2020.

Company Overview

Founded in 1975 with a single truck, 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 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 six states: Vermont, New Hampshire, New York, Massachusetts, 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 larger-scale recycling and commodity brokerage operations along with our organics services and large scale commercial and industrial services through our single resource-renewal focused Resource Solutions operating segment. We restructured and formed the Resource Solutions operating segment as of January 1, 2020 to be able to leverage our core competencies in materials processing, industrial recycling, clean energy, and organics service offerings in order to generate additional value from the waste stream for larger commercial and industrial customers with more diverse needs.

As of January 31, 2021, we owned and/or operated 46 solid waste collection operations, 58 transfer stations, 20 recycling facilities, eight Subtitle D landfills, four landfill gas-to-energy facilities and one landfill permitted to accept construction and demolition ("C&D") materials.

Recent Developments

With the global outbreak of the novel coronavirus ("COVID-19") and the declaration of a pandemic by the World Health Organization in March 2020, the U.S. Government and all of the states in which we operate have declared the waste services industry as an essential services provider and as a result we are committed to continue to operate and provide our full breadth of services. We have prioritized the safety and well-being of our employees by strictly adhering to recommendations of the Centers for Disease Control and Prevention as well as executive orders of the states in which we operate.

The COVID-19 pandemic has caused, and will to continue to cause, economic disruption across our geographic footprint and has adversely affected, and is expected to continue to adversely affect, our business. The COVID-19 pandemic negatively impacted our revenues starting at the end of the first quarter of fiscal year 2020, as many small business and construction collection customers required service level changes and volumes into our landfills declined due to lower economic activity. Even with the continued negative impact of the COVID-19 pandemic, we did experience improved demand for services as local economies started to reopen as allowed by State Governments. This positive trend continued through December 31, 2020, as additional small business collection customers increased service levels, construction activity continued to rebound, and overall higher economic activity across the northeast led to higher landfill volumes. Despite these positive trends, our collection and disposal operations were negatively impacted by lower volumes attributable to the COVID-19 pandemic in the fiscal year ended December 31, 2020 ("fiscal year 2020"), extending into the first quarter of the fiscal year ended December 31, 2021.

The COVID-19 pandemic has negatively impacted and will continue to impact our business in other ways, as we have experienced and continue to experience increased costs in response to the COVID-19 pandemic, including, but not limited to, higher costs associated with providing a safe working environment for our employees (such as increased costs associated with the protection of our employees, including costs for additional safety equipment, hygiene products and enhanced facility cleaning), potential employee layoffs or furloughs, employee impacts from illness, supporting a remote administration workforce, community response measures, the inability of customers to continue to pay for services, and temporary closures of our facilities or the facilities of our customers. In early September 2020, we also paid a special bonus to all our hourly employees (both frontline and administrative) to recognize their hard work and commitment to safety, environmental compliance and high customer service standards as essential service providers during the COVID-19 pandemic. We have taken measures to reduce costs in other areas and preserve liquidity during this period of uncertainty. As of the date of this filing, we are unable to determine or predict the nature, duration or scope of the overall impact that the COVID-19 pandemic will have on our business, results of operations, liquidity and capital resources. For further information regarding the impact of the COVID-19 pandemic on us, see Item 1A, "Risk Factors" included in this Annual Report on Form 10-K.

Acquisitions and Divestitures

Acquisitions

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

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 in New England and New York help to offset this factor.

In fiscal year 2020, we acquired ten businesses: seven tuck-in solid waste collection businesses and a solid waste collection business in our Western region, a transportation business in our Eastern region, and one recycling operation in our Resource Solutions operating segment for total consideration of \$33.5 million, including \$29.0 million in cash and \$4.5 million in holdbacks to sellers.

In fiscal year 2019, we acquired nine businesses: three tuck-in solid waste collection businesses in our Eastern region and four tuck-in solid waste collection businesses, a business comprised of solid waste collection, transfer and recycling operations, and a business comprised of solid waste hauling and transfer assets in our Western region for total consideration of \$82.2 million, including \$72.1 million in cash, \$5.5 million in non-cash consideration, \$2.7 million notes payable and \$1.9 million in holdbacks to sellers.

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, 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 households. 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 classify our resource-renewal services by service in our Resource Solutions operating segment. Revenues associated with our resource-renewal operations are derived from organics services, large scale commercial and industrial services, as well as recycling services generated from both municipalities and customers in the form of processing fees, tipping fees and commodity sales.

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

	Fiscal Year Ended December 31,		\$ Change
	2020	2019	
Collection	\$ 391.4	\$ 372.0	\$ 19.4
Disposal	175.5	181.9	(6.4)
Power	4.1	3.6	0.5
Processing	7.3	7.2	0.1
Solid waste	578.3	564.7	13.6
Organics	59.4	56.3	3.1
Customer solutions	86.7	79.5	7.2
Recycling	50.2	42.8	7.4
Resource Solutions	196.3	178.6	17.7
Total revenues	<u>\$ 774.6</u>	<u>\$ 743.3</u>	<u>\$ 31.3</u>

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 2020 vs Fiscal Year 2019	
	Amount	% Growth
Price	\$ 25.1	4.5 %
Volume (1)	(40.5)	(7.2)%
Surcharges and other fees	(0.7)	(0.1)%
Commodity price and volume	0.1	— %
Acquisitions	31.0	5.5 %
Solid waste revenues	<u>\$ 15.0</u>	<u>2.7 %</u>

- (1) Adjusted for \$1.4 million of inter-company movements between solid waste collection volume and the customer solutions line-of-business associated with an acquisition.

Price.

The price change component in fiscal year 2020 solid waste revenues growth from the prior year is a result of the following:

- \$15.6 million from favorable collection pricing; and
- \$9.5 million from favorable disposal pricing associated with our landfills and transfer stations.

Volume.

The volume change component in fiscal year 2020 solid waste revenues growth from the prior year is a result of the following:

- \$(21.8) million from lower collection volumes mainly due to the negative impacts of the COVID-19 pandemic;
- \$(18.4) million from lower disposal volumes (of which \$(14.0) million relates to lower landfill volumes mainly due to the negative impacts of the COVID-19 pandemic, \$(1.2) million relates to lower transfer station volumes mainly due to the negative impacts of the COVID-19 pandemic and \$(3.3) million relates to lower transportation volumes associated primarily with one of our larger customers); and
- \$(0.3) million from lower processing volumes.

Surcharges and other fees.

The surcharges and other fees change component in fiscal year 2020 solid waste revenues growth from the prior year is associated with the energy component of the energy and environmental fee and the sustainability recycling adjustment fee, inclusive of the effect of acquisition activity. The energy component of the fee floats on a monthly basis based on diesel fuel prices. The sustainability recycling adjustment fee floats on a monthly basis based on recycled commodity prices.

Acquisitions.

The acquisitions change component in fiscal year 2020 solid waste revenues growth is a result of increased acquisition activity, including the following:

- the acquisition of ten businesses in fiscal year 2020: seven tuck-in solid waste collection businesses and a solid waste collection business in our Western region, a transportation business in our Eastern region, and one recycling operation in our Resource Solutions operating segment; and
- the acquisition of nine businesses in fiscal year 2019: seven tuck-in solid waste collection businesses, a business comprised of solid waste collection, transfer and recycling operations, and a business comprised of solid waste hauling and transfer assets.

Resource Solutions revenues

Organics revenues.

Fiscal year 2020 organics revenues increased \$3.1 million from the prior year as a result of higher volumes mainly associated with two large transportation and disposal contracts.

Customer solutions revenues.

Fiscal year 2020 revenues increased \$5.8 million from the prior year as a result of higher volumes mainly due to multi-site retail and industrial services organic growth. The increase was adjusted for \$1.4 million of inter-company movements between solid waste collection volume and customer solutions associated with the acquisition of a business.

Recycling revenues.

Fiscal year 2020 recycling revenues increased \$7.4 million from the prior year as a result of the following:

- \$3.5 million from favorable commodity pricing in the marketplace with higher cardboard and paper pricing;
- \$1.8 million from higher recycling processing fees;
- \$1.1 million from the acquisition of a recycling operation; and
- \$1.0 million from higher commodity volumes.

Operating Expenses

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

	Fiscal Years Ended December 31,			
	2020		2019	
Cost of operations	\$ 515.6	66.6 %	\$ 508.7	68.4 %
General and administration	\$ 102.4	13.2 %	\$ 92.8	12.5 %
Depreciation and amortization	\$ 90.8	11.7 %	\$ 79.8	10.7 %

Cost of Operations

Cost of operations includes labor costs, tipping fees paid to third-party disposal facilities, fuel costs, maintenance and repair costs of vehicles and equipment, workers' compensation and vehicle insurance costs, the cost of purchasing materials to be recycled, third-party transportation costs, district and state taxes, host community fees and royalties. Cost of operations also includes accretion expense related to final capping, closure and post-closure obligations, leachate treatment and disposal costs and depletion of landfill operating lease obligations.

An explanation of the period-to-period change in cost of operations is as follows:

Maintenance and repair costs in fiscal year 2020 increased \$8.2 million from the prior year while increasing approximately 50 basis points as a percentage of revenues, due primarily to higher facility maintenance costs, and, to a lesser extent, higher container maintenance and repair costs; partially offset by lower overall fleet maintenance costs associated with less wear and tear based on activity levels and lower volumes as a result of the COVID-19 pandemic, which outweighed increased fleet maintenance costs associated with acquisition activity.

Labor and related benefit costs in fiscal year 2020 increased \$3.3 million from the prior year but decreased approximately 10 basis points as a percentage of revenues, due primarily to acquisition activity in the Western region and a special \$1.8 million discretionary bonus for our front-line employees associated with operational execution during the COVID-19 pandemic, partially offset by lower benefit costs, and lower labor costs due to decreased overtime.

Third-party direct costs in fiscal year 2020 decreased \$(0.7) million from the prior year while decreasing approximately 120 basis points as a percentage of revenues due to the following:

- lower hauling and third-party transportation costs associated with lower volumes mainly due to the negative impacts of the COVID-19 pandemic; partially offset by higher hauling and third-party transportation costs associated with (i) higher collection volumes related to acquisition activity in the Western region; (ii) higher brokerage volumes in our customer solutions line-of-business with high pass through direct costs; (iii) higher recycling volumes related to organic growth and acquisition activity; and (iv) higher transportation rates; and
- lower disposal costs associated with lower commercial collection, construction and demolition, and landfill volumes, mainly due to the negative economic impacts of the COVID-19 pandemic, combined with lower organic collection and landfill volumes due to our focus on pricing; partially offset by higher third-party disposal costs associated with (i) increased disposal pricing in the northeastern United States; (ii) additional volumes related to acquisition activity in the Western region; and (iii) additional volumes within our Resource Solutions operating segment due to multi-site retail and industrial services organic growth in our customer solutions line-of-business and organic growth in our organics line-of-business.

Fuel costs in fiscal year 2020 decreased \$(1.5) million from the prior year while decreasing approximately 30 basis points as a percentage of revenues, due primarily to lower fuel prices, less traffic due to the COVID-19 pandemic, and improved fleet efficiency, partially offset by higher volumes associated with acquisition activity.

Direct operational costs in fiscal year 2020 decreased \$(2.4) million from the prior year while decreasing approximately 70 basis points as a percentage of revenues, due to lower landfill operating costs, lower equipment operating lease expense, lower short term equipment rental costs, and lower host community fees on lower landfill volumes in our Western region; partially offset by higher operating costs related to business growth.

General and Administration

General and administration expenses include management, clerical and administrative compensation and overhead, professional services and costs associated with marketing, sales force and community relations efforts.

The period-to-period change in general and administration expense can be primarily attributed to: higher labor costs of \$8.2 million associated with acquisition activity, higher accrued incentive compensation, a special discretionary bonus for our hourly back-office employees associated with their execution during the COVID-19 pandemic, and severance costs; and higher bad debt expense based on challenges faced by our customers as a result of the economic downturn associated with the COVID-19 pandemic.

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, using either an economic benefit provided approach or on a straight-line basis over the definitive terms of the related agreements.

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

	Fiscal Year Ended December 31,			
	2020		2019	
Depreciation expense	\$ 54.4	7.0 %	\$ 45.1	6.1 %
Landfill amortization expense	27.5	3.6 %	27.5	3.7 %
Other amortization expense	8.9	1.1 %	7.2	0.9 %
	<u>\$ 90.8</u>	<u>11.7 %</u>	<u>\$ 79.8</u>	<u>10.7 %</u>

The period-to-period change in depreciation and amortization expense can be primarily attributed to increased investment in our fleet, acquisition activity and higher landfill amortization expense associated with changes in cost estimates and other assumptions, partially offset by lower landfill volumes mainly associated with the negative impacts of the COVID-19 pandemic.

Multiemployer Pension Plan

We make contributions to a multiemployer defined benefit pension plan, the New England Teamsters and Trucking Industry Pension Fund (the "Pension Plan"), under the terms of a collective bargaining agreement ("CBA") that covers certain of our union represented employees. The EIN or Pension Plan Number for the Pension Plan is 04-6372430. The Pension Plan provides retirement benefits to participants based on their service to contributing employers. We do not administer the Pension Plan. The risks of participating in a multiemployer pension plan are different from a single-employer pension plan in that: (i) assets contributed to the multiemployer pension plan by one employer may be used to provide benefits to employees or former employees of other participating employers; (ii) if a participating employer stops contributing to the plan, the unfunded obligations of the plan may be required to be assumed by the remaining participating employers; and (iii) if we choose to stop participating in our multiemployer Pension Plan, we may be required to pay the plan a withdrawal amount based on the underfunded status of the plan.

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 ("Agreements"). In accordance with FASB ASC 450 - Contingencies, because of our withdrawal from the Pension Plan, we recorded an obligation of \$3.2 million and a charge of \$3.6 million as pension withdrawal expense, offset by a \$0.4 million retroactive contribution credit recorded as cost of operations, in fiscal year 2019. While the withdrawal generates a fixed yearly contingent liability for us for a period of approximately seventeen (17) years, it caps our gross payments at \$4.2 million significantly reducing our cash exposure from the potential \$18.5 million withdrawal liability as determined based on a complete withdrawal prior to withdrawing from the Pension Plan. As per the Re-entry Agreements and upon withdrawal, we re-entered the Pension Plan as a new employer with certainty from a liability perspective. As of December 31, 2020, we had a remaining obligation of \$1.8 million associated with our withdrawal. We did not, however, change the terms of our CBA with Local 170, which remained in effect until it expired on June 30, 2020, at which time a new agreement was entered into. As a new employer in the Pension Plan, our contributions are projected to fully fund the benefits accrued by our employee's in the Pension Plan. As of December 31, 2020, our employees were fully funded as a new employer in the Pension Plan, subject to the terms of the 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 2020 and 2019, we made contributions to the Pension Plan of \$0.4 million and \$0.4 million, respectively.

Southbridge Landfill Closure Charge

In the fiscal year ended December 31, 2017 ("fiscal year 2017"), we initiated the 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 2020 and 2019, respectively, we recorded charges associated with the closure of our Southbridge Landfill as follows:

	Fiscal Year Ended December 31,	
	2020	2019
Legal and transaction costs (1)	\$ 2.3	\$ 2.7
Legal settlement charge (2)	2.0	—
Landfill closure project charge (3)	0.5	—
Environmental remediation charge (4)	(0.2)	—
Southbridge Landfill closure charge	\$ 4.6	\$ 2.7

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

(2) We established reserves associated with legal settlements associated with claims against us as part of the Southbridge Landfill closure.

(3) We recorded a landfill closure project charge associated with increased costs under the revised closure plan at our Southbridge Landfill.

(4) We recorded an environmental remediation reversal associated with the completion of environmental remediation at the site.

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.

Expense from Acquisition Activities

In fiscal year 2020, we recorded a charge of \$1.9 million comprised primarily of legal, consulting and other similar costs associated with the acquisition and integration of acquired businesses or select development projects. In fiscal year 2019, we recorded a charge of \$2.7 million associated primarily with acquisition activities. 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.

Other expenses

Interest Expense, net

Our interest expense, net decreased \$(2.7) million in fiscal year 2020 due primarily to lower average interest rates associated with changes in LIBOR and the remarketing of our New York State Environmental Facilities Corporation Solid Waste Disposal Revenue Bonds Series 2014 (“New York Bonds 2014R-1”) and our Business Finance Authority of the State of New Hampshire Solid Waste Disposal Revenue Bonds Series 2013 (“New Hampshire Bonds”).

Benefit for Income Taxes

Our benefit for income taxes was \$(52.8) million in fiscal year 2020 and \$(1.9) million in fiscal year 2019. The benefit for income taxes for fiscal years 2020 and 2019 includes a deferred tax benefit of \$(52.3) million and \$(1.2) million, respectively.

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 \$61.3 million. As of December 31, 2020, we maintained a valuation allowance of \$6.5 million, primarily related to deferred tax assets that would generate capital losses when realized and deferred tax assets related to certain state jurisdictions.

During fiscal year 2019, we recognized a \$(0.3) million deferred tax benefit due to a reduction of the deferred tax liability related to indefinite lived assets. The financial statement value of indefinite lived goodwill was reduced as a result of a settlement of an acquisition contingency that pre-dated the effective date of Accounting Standards Codification 805, which resulted in a reduction of the related deferred tax liability. In addition, during fiscal year 2019, we recognized a \$(2.4) million deferred tax benefit due to a reduction of the valuation allowance based on the recognition of additional reversing temporary differences related to the \$2.4 million deferred tax liability recorded through goodwill for the acquisition of a company in May 2019. The deferred tax liability related to the acquisition was based on the impact of temporary differences between the amounts of assets and liabilities recognized for financial reporting purposes and the related tax bases. A deferred tax benefit of \$(2.1) million was recognized in quarter ending June 30, 2019 based on initial estimates of the acquired temporary differences, and adjusted by \$(0.3) million in quarter ending December 31, 2019 based on the availability of better estimates of temporary differences upon the filing of prior year returns by the sellers.

On March 27, 2020, the Coronavirus Aid, Relief, and Economic Security Act (the “CARES Act”) was enacted which, among other things, allows the carryback of remaining minimum tax credit carryforwards to tax year 2018. Prior to the CARES Act, the minimum tax credit carryforwards were fully refundable through tax year 2021, if not otherwise used to offset tax liabilities. A current federal income tax benefit of \$(1.0) million, offset by a \$1.0 million deferred tax provision, was recognized in the quarter ended March 31, 2020 for the remaining minimum tax credit being carried back to tax year 2018 by us. In fiscal year 2019, we recognized a \$(1.0) million current income tax benefit, offset by a \$1.0 million deferred tax provision, for the portion of the minimum tax credit carryforward refundable for 2019 based on law then enacted.

On December 22, 2017, the Tax Cuts and Jobs Act (the “TCJ Act”) was enacted. The TCJ Act significantly changed U.S. corporate income tax laws by, among other things, changing carryforward rules for net operating losses. Our \$92.5 million in federal net operating loss carryforwards generated as of the end of 2017 continue to be carried forward for 20 years and are expected to be available to fully offset taxable income earned in 2021 and future tax years. Federal net operating losses generated after 2017, totaling \$46.5 million carried forward to 2021, will be carried forward indefinitely, but generally may only offset up to 80% of taxable income earned in a tax year. Although the CARES Act further modifies the net operating loss rules to permit net operating losses incurred in tax years 2018 through 2020 to be carried back 5 years and to temporarily permit such losses to offset 100% of taxable income in tax year 2020, these modifications have not impacted us.

Other income tax changes under the CARES Act have not had a material impact.

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, landfill, landfill gas-to-energy, transfer and recycling services in the northeastern United States. We classify our resource-renewal services by service in our Resource Solutions operating segment. Revenues associated with our resource-renewal operations are derived from organics services, large scale commercial and industrial services, as well as recycling services generated from both municipalities and customers in the form of processing fees, tipping fees and commodity sales. Legal, tax, information technology, human resources, marketing, certain finance and accounting and other administrative functions are included in our Corporate Entities operating segment.

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

	Fiscal Year Ended December 31,		\$ Change
	2020	2019	
Eastern	\$ 220.3	\$ 219.5	\$ 0.8
Western	358.0	345.2	12.8
Resource Solutions	196.3	178.6	17.7
Total	\$ 774.6	\$ 743.3	\$ 31.3

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 2020 vs Fiscal Year 2019	
	Amount	% Growth
Price	\$ 8.5	3.9 %
Volume	(8.9)	(4.1)%
Surcharges and other fees	(0.8)	(0.4)%
Commodity price and volume	0.1	0.1 %
Acquisitions	1.9	0.9 %
Solid waste revenues	\$ 0.8	0.4 %

Price.

The price change component in fiscal year 2020 solid waste revenues growth from the prior year is a result of the following:

- \$6.3 million from favorable collection pricing; and
- \$2.2 million from favorable disposal pricing related to transfer stations and landfills.

Volume.

The volume change component in fiscal year 2020 solid waste revenues growth from the prior year is a result of the following:

- \$(8.2) million from lower collection volumes mainly due to the negative impacts of the COVID-19 pandemic;
- \$(0.5) million from lower disposal volumes (of which \$(1.2) million relates to lower transfer station volumes mainly due to the negative impacts of the COVID-19 pandemic, partially offset by \$0.7 million from higher landfill volumes in the Eastern region); and
- \$(0.2) million from lower processing volumes.

Surcharges and other fees.

The surcharges and other fees change component in fiscal year 2020 solid waste revenues growth from the prior year is associated with the energy component of the energy and environmental fee and the sustainability recycling adjustment fee, inclusive of the effect of acquisition activity. The energy component of the fee floats on a monthly basis based on diesel fuel prices. The sustainability recycling adjustment fee floats on a monthly basis based on recycled commodity prices.

Acquisitions.

The acquisitions and divestitures change component in fiscal year 2020 solid waste revenues growth is the result of the acquisition of a transportation business in fiscal year 2020 and the acquisition of three tuck-in solid waste collection businesses in the prior year.

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 2020 vs Fiscal Year 2019	
	Amount	% Growth
Price	\$ 16.7	4.8 %
Volume (1)	(31.6)	(9.1)%
Surcharges and other fees	0.1	— %
Commodity price and volume	(0.1)	— %
Acquisitions	29.1	8.4 %
Solid waste revenues	\$ 14.2	4.1 %

- (1) Adjusted for \$1.4 million of inter-company movements between solid waste collection volume and the customer solutions line-of-business associated with an acquisition.

Price.

The price change component in fiscal year 2020 solid waste revenues growth from the prior year is a result of the following:

- \$9.4 million from favorable collection pricing; and
- \$7.3 million from favorable disposal pricing related to landfills and transfer stations.

Volume.

The volume change component in fiscal year 2020 solid waste revenues growth from the prior year is a result of the following:

- \$(18.0) million from lower disposal volumes related to landfills and transportation mainly due to the negative impacts of the COVID-19 pandemic; and
- \$(13.6) million from lower collection volumes mainly due to the negative impacts of the COVID-19 pandemic.

Acquisitions and divestitures.

The acquisitions and divestitures change component in fiscal year 2020 solid waste revenues growth from the prior year is the result of the acquisition of seven tuck-in solid waste collection businesses and a solid waste collection business in fiscal year 2020 and the acquisition of four tuck-in solid waste collection businesses, a business comprised of solid waste collection, transfer and recycling operations and a business comprised of solid waste hauling and transfer assets in the prior year.

Operating Income (Loss)

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

	December 31,		\$ Change
	2020	2019	
Eastern	\$ 11.6	\$ 9.5	\$ 2.1
Western	42.7	42.0	0.7
Resource Solutions	7.4	5.8	1.6
Corporate Entities	(2.4)	(4.2)	1.8
Total	\$ 59.3	\$ 53.1	\$ 6.2

Eastern Region

Eastern region operating income increased \$2.1 million in fiscal year 2020 from the prior year. Excluding the impact of the Southbridge Landfill closure charge, the multiemployer pension plan withdrawal costs, and the expense from acquisition activities, our operating performance in fiscal year 2020 improved as a result of revenue growth and the cost impacts discussed below.

Cost of operations: Cost of operations decreased \$(2.9) million in fiscal year 2020 from the prior year as a result of the following:

- lower disposal costs associated with lower volumes mainly due to the negative impacts of the COVID-19 pandemic and to a lesser extent our focus on pricing;
- lower hauling and third-party transportation costs associated with lower collection volumes mainly due to the negative impacts of the COVID-19 pandemic, which offset additional costs related to acquisition activity and higher transportation rates;
- lower labor and related benefit costs due to decreased overtime and lower benefit costs more than offsetting a special discretionary bonus for our front-line employees associated with operational execution during the COVID-19 pandemic;
- lower fuel costs due primarily to lower fuel prices, less traffic and improved fleet efficiency;
- lower direct operational costs, excluding the impact of gains associated with fixed asset sales, due to landfill operations and lower equipment costs; and
- lower fleet maintenance costs due to less wear and tear based on activity levels and lower volumes as a result of the COVID-19 pandemic; partially offset by
- higher facility maintenance costs associated with acquisition activity and related business growth.

General and administration: General and administration expense increased \$0.7 million in fiscal year 2020 due to higher accrued incentive compensation, combined with higher bad debt expense based on challenges faced by our customers as a result of the economic downturn associated with the COVID-19 pandemic and a special discretionary bonus for our hourly back-office employees associated with their execution during the COVID-19 pandemic.

Depreciation and amortization: Depreciation and amortization expense increased \$1.3 million in fiscal year 2020 due to higher depreciation and amortization expense associated with acquisition activity.

Western Region

Western region operating income increased \$0.7 million in fiscal year 2020 from the prior year. Excluding the impact of expense from acquisition activities, our operating performance in fiscal year 2020 improved as a result of revenue growth and the cost impacts discussed below.

Cost of operations: Cost of operations increased \$15.7 million in fiscal year 2020 from the prior year as a result of the following:

- higher labor and benefit costs associated with acquisition activity and a special discretionary bonus for our front-line employees associated with operational execution during the COVID-19 pandemic, partially offset by lower labor costs on decreased overtime;

- higher maintenance and repair costs associated with higher facility maintenance costs, and to a lesser extent, higher fleet maintenance costs associated with acquisition activity and related business growth, which was partially offset by fleet maintenance cost savings associated with less wear and tear based on activity levels and lower volumes as a result of the COVID-19 pandemic; and
- higher disposal costs associated with increased disposal pricing in the northeastern United States and additional volumes related to acquisition activity, more than offsetting lower commercial collection, construction and demolition, and landfill volumes, mainly due to the negative impacts of the COVID-19 pandemic and our focus on pricing; partially offset by
- lower hauling and third-party transportation costs associated with lower collection volumes, partially offset by higher costs related to increased collection volumes associated with acquisition activity and higher transportation rates;
- lower direct operational costs associated with lower landfill operating costs, partially offset by higher operating costs related to business growth; and
- lower fuel costs associated with lower fuel prices and improved fleet efficiency, partially offset by higher fuel costs related to increased volumes associated with acquisition activity.

General and administration: General and administration expense increased \$5.9 million in fiscal year 2020 due to higher labor costs associated with acquisition activity, higher bad debt expense based on challenges faced by our customers as a result of the economic downturn associated with the COVID-19 pandemic, higher accrued incentive compensation and a special discretionary bonus for our hourly back-office employees associated with execution during the COVID-19 pandemic.

Depreciation and amortization: Depreciation and amortization expense increased \$8.8 million in fiscal year 2020 due primarily to acquisition activity and higher landfill amortization expense associated with changes in cost estimates and other assumptions, partially offset by lower landfill volumes mainly associated with the negative impacts of the COVID-19 pandemic.

Resource Solutions

Operating income increased \$1.6 million in fiscal year 2020 from the prior year due to the following:

Recycling.

Our operating performance in fiscal year 2020 improved primarily due to revenue growth on higher recycling processing fees and higher commodity pricing in the marketplace with higher cardboard and paper pricing, and higher recycling volumes both organically and as a result of acquisition activity, partially offset by higher operating costs, including disposal costs and facility and operational support costs, driven primarily by volume growth.

Organics.

Our operating performance remained flat in fiscal year 2020 as higher volumes were offset by higher operating and disposal costs.

Customer solutions.

Our operating performance in fiscal year 2020 declined as revenue growth associated with increased volumes was outpaced by higher cost of operations including an increase in hauling, transportation and disposal costs, higher labor and personnel costs, and higher depreciation expense.

Liquidity and Capital Resources

Recent Events

We continue to monitor the impact that the COVID-19 pandemic has had and will continue to have on our actual and forecasted cash flows, our liquidity, and our capital requirements in order to properly manage our liquidity needs as we move forward. Because of the nature of the services we provide, we expect to continue to generate positive operating cash flows through stable revenue sources. To counter the impact of expected revenue declines, we have initiated steps to reduce discretionary spending and delay certain capital expenditures and can further scale down these expenditures to meet liquidity needs.

We have \$173.6 million of undrawn capacity from our \$200.0 million revolving line of credit facility ("Revolving Credit Facility") and \$154.3 million of cash and cash equivalents as of December 31, 2020 to help meet our liquidity needs, and our next significant debt maturity, which is comprised of our Revolving Credit Facility and term loan A facility ("Term Loan Facility", and together with the Revolving Credit Facility, the "Credit Facility"), is in May 2023. We believe that we will remain in compliance with all necessary covenants of our Credit Facility over the remaining term of this facility.

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

	December 31,	
	2020	2019
Cash and cash equivalents	\$ 154.3	\$ 3.5
Restricted assets:		
Restricted investments securities - landfill closure	\$ 1.8	\$ 1.6
Debt:		
Current portion	\$ 9.2	\$ 4.3
Non-current portion	539.2	518.4
Total debt	\$ 548.4	\$ 522.7

Summary of Cash Flow Activity

A summary of cash flows (in millions) follows:

	Fiscal Year Ended December 31,	
	2020	2019
Net cash provided by operating activities	\$ 139.9	\$ 116.8
Net cash used in investing activities	\$ (140.0)	\$ (177.5)
Net cash provided by financing activities	\$ 151.0	\$ 60.1

Cash flows from operating activities.

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

	Fiscal Year Ended December 31,	
	2020	2019
Net income	\$ 91.1	\$ 31.7
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	90.8	79.8
Depletion of landfill operating lease obligations	7.8	7.7
Interest accretion on landfill and environmental remediation liabilities	7.1	7.0
Amortization of debt issuance costs and discount on long-term debt	2.2	2.3
Stock-based compensation	8.2	7.2
Operating lease right-of-use assets expense	8.5	9.6
Loss (gain) on sale of property and equipment	0.9	(0.9)
Southbridge Landfill non-cash closure charge	0.3	0.1
Non-cash expense from acquisition activities and other items	0.6	0.1
Withdrawal costs - multiemployer pension plan	—	2.2
Deferred income taxes	(52.3)	(1.2)
	165.2	145.6
Changes in assets and liabilities, net	(25.3)	(28.8)
Net cash provided by operating activities	\$ 139.9	\$ 116.8

Net cash provided by operating activities increased \$23.1 million in fiscal year 2020 as compared to fiscal year 2019. 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 2020 as compared to fiscal year 2019, see *Results of Operations* included in 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 2020 as compared to fiscal year 2019 was due primarily to the following:

- a \$13.8 million favorable impact to operating cash flows associated with the change in accrued expenses and other liabilities due primarily to the timing of environmental remediation payments and final capping, closure and post-closure payments, which increased in fiscal year 2019 and then decreased in fiscal year 2020; and
- a \$11.3 million favorable impact to operating cash flows associated with the change in accounts receivable; and
- a \$0.5 million favorable impact to operating cash flows associated with the change in prepaid expenses, inventories and other assets; partially offset by
- a \$(22.0) million unfavorable impact to operating cash flows associated with the change in accounts payable based on differences in the timing of payments.

Cash flows from investing activities.

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

	Fiscal Year Ended December 31,	
	2020	2019
Acquisitions, net of cash acquired	\$ (32.5)	\$ (75.4)
Additions to property, plant and equipment	(108.0)	(103.2)
Proceeds from sale of property and equipment	0.5	0.8
Proceeds from property insurance settlement	—	0.3
Net cash used in investing activities	<u>\$ (140.0)</u>	<u>\$ (177.5)</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 2020, we acquired seven tuck-in solid waste collection businesses and a solid waste collection business, a transportation business, and one recycling operation for total consideration of \$33.5 million, including \$29.0 million in cash, and paid \$3.5 million in holdback payments on businesses previously acquired, as compared to fiscal year 2019, during which we acquired seven tuck-in solid waste collection businesses, a business comprised of solid waste collection, transfer and recycling operations and a business comprised of solid waste hauling and transfer assets for total consideration of \$82.2 million, including \$72.1 million in cash and \$3.3 million in holdback payments on businesses previously acquired.

Capital expenditures. Capital expenditures were \$4.8 million higher in fiscal year 2020 as compared to fiscal year 2019 primarily due to timing differences and the following items:

- \$5.7 million in additional capital expenditures from phase VI construction and development costs related to long-term infrastructure at the Subtitle D landfill in Coventry, Vermont ("Waste USA Landfill") to facilitate future landfill airspace construction which will significantly enhance the economic useful life of the Waste USA Landfill once construction is finished; partially offset by
- \$(1.8) million from lower capital expenditures associated with the integration of newly acquired operations, which includes planned capital expenditures following an acquisition, as well as non-routine development investments that are expected to provide long-term returns.

Proceeds from property insurance settlement. Recovery of insurance proceeds was \$(0.3) million lower in fiscal year 2020 as compared to fiscal year 2019 due to increased recoveries in prior year pertaining to property damage related to a fire at a transfer station in our Western region.

Cash flows from financing activities.

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

	Fiscal Year Ended December 31,	
	2020	2019
Proceeds from debt borrowings	\$ 157.0	\$ 197.8
Principal payments on debt	(149.4)	(243.4)
Payments of debt issuance costs	(1.5)	(0.7)
Proceeds from the exercise of share-based awards	0.1	3.4
Proceeds from the public offering of Class A Common Stock	144.8	100.4
Proceeds from unregistered sale of Class A Common Stock	—	2.6
Net cash provided by financing activities	<u>\$ 151.0</u>	<u>\$ 60.1</u>

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

Debt activity. Net cash provided by debt activity increased \$53.2 million year-over-year. The increase in financing cash flows related to debt activity is primarily associated with the timing of the pay down of our Revolving Credit Facility and an increase in new finance lease obligations.

Payments of debt issuance costs. We made \$1.5 million of debt issuance cost payments in fiscal year 2020 related to the issuance of \$40.0 million aggregate principal amount of New York State Environmental Facilities Corporation Solid Waste Disposal Revenue Bonds Series 2020 ("New York Bonds 2020") as compared to \$0.7 million of debt issuance cost payments in fiscal year 2019 related to the remarketing of \$11.0 million aggregate principal amount of New Hampshire Bonds and \$25.0 million aggregate principal amount of New York Bonds 2014R-1.

Proceeds from the exercise of share-based awards. We received \$0.1 million of cash receipts associated with the exercise of stock options in fiscal year 2020 as compared to \$3.4 million in the prior year.

Proceeds from the public offering of Class A Common Stock. In fiscal year 2020, we completed a public offering of 2.7 million 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 \$144.8 million, after deducting underwriting discounts, commissions and offering expenses. The net proceeds from the offering were and are to be used for general corporate purposes, including potential acquisitions or development of new operations or assets with the goal of complementing or expanding our business, and for working capital and capital expenditures.

In fiscal year 2019, we completed a public offering of 3.6 million shares of our Class A common stock at a public offering price of \$29.50 per share. The offering resulted in net proceeds to us of \$100.4 million, after deducting underwriting discounts, commissions and offering expenses. The net proceeds from the offering were used for general corporate purposes, including acquisitions, development of new operations or assets with the goal of complementing or expanding our business, working capital and capital expenditures.

Proceeds from the unregistered sale of Class A Common Stock. In fiscal year 2019, we completed the unregistered sale of 59,307 shares of our Class A common stock at a price of \$44.15 per share. The sale resulted in net proceeds to us of \$2.6 million. The shares were previously held in escrow according to the terms of our acquisition of Waste Stream Inc. ("WSI") in 1999 and released to us for liquidation to offset costs associated with the environmental remediation of WSI's Potsdam, New York site. 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 additional disclosure.

Outstanding Long-Term Debt**Credit Facility**

As of December 31, 2020, under our credit agreement ("Credit Agreement"), we had outstanding \$350.0 million aggregate principal amount of borrowings under our Term Loan Facility and no borrowings under our \$200.0 million Revolving Credit Facility. 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 May 2023 and bears interest at a rate of LIBOR plus 1.75% per annum, which will be reduced to a rate of LIBOR plus as low as 1.25% 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, 2020, further advances were available under the Credit Facility in the amount of \$173.6 million. The available amount is net of outstanding irrevocable letters of credit totaling \$26.4 million, at which date no amount had been drawn.

The 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, 2020, 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, 2020	Covenant Requirements at December 31, 2020
Maximum consolidated net leverage ratio (1)	2.76	4.00
Minimum interest coverage ratio	8.71	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 \$50.0 million (calculated at \$498.4 million as of December 31, 2020, or \$548.4 million of consolidated funded debt less \$50.0 million of cash and cash equivalents in excess of \$2.0 million and up to \$50.0 million as of December 31, 2020), divided by consolidated EBITDA. Consolidated EBITDA is based on operating results for the twelve months preceding the measurement date of December 31, 2020. Consolidated funded debt, net of unencumbered cash and cash equivalents in excess of \$2.0 million and up to \$50.0 million, and consolidated EBITDA as defined by the 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, 2020
Net cash provided by operating activities	\$ 139.9
Changes in assets and liabilities, net of effects of acquisitions and divestitures	25.3
Loss on sale of property and equipment	(0.9)
Non-cash expense from acquisition activities and other items	(0.6)
Stock based compensation	(8.2)
Operating lease right-of-use assets expense	(8.5)
Southbridge Landfill non-cash closure charge	(0.3)
Interest expense, less amortization of debt issuance costs	20.2
Benefit for income taxes, net of deferred income taxes	(0.5)
Adjustments as allowed by the Credit Agreement	14.1
Consolidated EBITDA	\$ 180.5

In addition to the financial covenants described above, the Credit Agreement also 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, 2020, 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.

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

New York Bonds. In fiscal year 2020, we completed the issuance of \$40.0 million 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. As of December 31, 2020, we had outstanding \$40.0 million aggregate principal amount of New York Bonds 2020.

In fiscal year 2019, we completed the remarketing of \$25.0 million aggregate principal amount of New York Bonds 2014R-1. As of December 31, 2020, we had outstanding \$25.0 million aggregate principal amount of New York Bonds 2014R-1 and \$15.0 million aggregate principal amount of New York State Environmental Facilities Corporation Solid Waste Disposal Revenue Bonds Series 2014R-2 ("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"). 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 and to pay certain costs of issuance of the New York Bonds 2014.

Maine Bonds. As of December 31, 2020, we had outstanding \$25.0 million aggregate principal amount of Finance Authority of Maine Solid Waste Disposal Revenue Bonds Series 2005 ("FAME Bonds 2005R-3"), \$15.0 million aggregate principal amount Finance Authority of Maine Solid Waste Disposal Revenue Bonds Series 2015 ("FAME Bonds 2015R-1"), and \$15.0 million aggregate principal amount of Finance Authority of Maine Solid Waste Disposal Revenue Bonds Series 2015R-2 ("FAME Bonds 2015R-2"). 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 2005R-3, 2015R-1 and 2015R-2 (collectively, 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, and to pay certain costs of the issuance of the FAME Bonds.

Vermont Bonds. As of December 31, 2020, we had outstanding \$16.0 million aggregate principal amount of Vermont Economic Development Authority Solid Waste Disposal Long-Term Revenue Bonds Series 2013 ("Vermont Bonds"). The Vermont Bonds, 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 mature on April 1, 2036. We borrowed the proceeds of the Vermont Bonds to finance or refinance certain qualifying property, plant and equipment assets purchased in the state of Vermont.

New Hampshire Bonds. In fiscal year 2019, we completed the remarketing of \$11.0 million aggregate principal amount of senior unsecured New Hampshire Bonds. As of December 31, 2020, we had outstanding \$11.0 million 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. During the fixed interest rate period, the New Hampshire Bonds are not supported by a letter of credit. Interest is payable on April 1 and October 1 of each year. 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.

Contractual Obligations

The following table summarizes our significant contractual obligations and commitments as of December 31, 2020 (in thousands) and the anticipated effect of these obligations on our liquidity in future years:

	Less than one year	1 - 3 years	3 - 5 years	More than 5 years	Total
Debt	\$ 9,240	\$ 360,143	\$ 36,066	\$ 142,970	\$ 548,419
Interest obligations (1)	14,575	27,999	13,932	68,440	124,946
Non-cancellable operating leases	6,097	6,109	1,740	4,698	18,644
Landfill operating lease contracts	5,605	10,990	12,410	42,872	71,877
Pension plan contributions	147	294	294	1,583	2,318
Environmental remediations	377	654	665	4,667	6,363
Final capping, closure and post-closure	8,840	12,286	13,089	180,919	215,134
Total contractual cash obligations (2)	\$ 44,881	\$ 418,475	\$ 78,196	\$ 446,149	\$ 987,701

(1) Based on debt balances as of December 31, 2020. Interest obligations related to variable rate debt were calculated using variable rates in effect at December 31, 2020.

(2) Contractual cash obligations do not include accounts payable or accrued liabilities, which will be paid in the fiscal year ending December 31, 2021.

We have no contractual obligations related to unrecognized tax benefits at December 31, 2020. For further description over contractual obligations, see Note 9, *Leases*, Note 11, *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

Although inflationary increases in costs have affected our historical operating margins, we believe that inflation generally has not had a significant impact on our operating results. Consistent with industry practice, most of our contracts provide for a pass-through of certain costs to our customers, including increases in landfill tipping fees and in some 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 a fuel surcharge, which is designed to recover escalating fuel price fluctuations above an annually reset floor. Based on these implementations, we believe we should be able to sufficiently offset most cost increases resulting from inflation. However, competitive factors may require us to absorb at least a portion of these cost increases. 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 results of operations are susceptible to downturns in the general economy in this geographic region and other factors affecting the region, such as state regulations and severe weather conditions. We are unable to forecast or determine the timing and/or the future impact of a sustained economic slowdown.

Critical Accounting Estimates and Assumptions

Our consolidated financial statements have been prepared in accordance with 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. 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.

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. 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 permittable airspace. See Note 11, *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.

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.

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.

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 2020 consider the current economic conditions associated with the COVID-19 pandemic 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.

Goodwill and Other Intangibles

We annually assess goodwill for impairment at the end 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. Effective January 1, 2020, we adopted Accounting Standards Update 2017-04, Intangibles - Goodwill and Other (Topic 350). Under this guidance, Step 2 of the testing for goodwill impairment was eliminated and going forward 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.

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 recycling, and customer solutions lines-of-business, which are included in 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 2020. As of October 1, 2020, our Eastern, Western, recycling, and customer 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, recycling, and customer solutions reporting units exceeded its carrying value by in excess of 77.2%. We incurred no impairment of goodwill as a result of our annual goodwill impairment tests in fiscal years 2020, 2019 or 2018. 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 and customer lists. Intangible assets are recorded at fair value and are amortized based on the economic benefit provided or using the straight-line method over their estimated useful lives. Covenants not-to-compete and customer lists are typically amortized over a term of no more than 10 years. See Note 10, *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.

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 applicable. 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.

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 current estimates of fair value could differ significantly from the amounts presented.

Self-Insurance Liabilities and Related Costs

We are self-insured for vehicles and workers' compensation with reinsurance coverage limiting our maximum exposure. Our maximum exposure in fiscal year 2020 under the workers' compensation plan was \$1.25 million per individual event. Our maximum exposure in fiscal year 2020 under the automobile plan was \$3.65 million per individual event. 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 sheet 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.

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, de-recognition 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.

In the fourth quarter of 2020, we determined it was more likely than not that 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 of \$61.3 million in income taxes. 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. 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 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.

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, including market-based performance stock options, restricted stock, restricted stock units and performance stock units, including market-based performance stock units.

The fair value of each stock option grant is estimated using a Black-Scholes option-pricing model, with the exception of market-based performance stock option grants which are valued using a Monte Carlo option-pricing model. The fair value of restricted stock, restricted stock unit and performance 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.

Defined Benefit Pension Plan

We make contributions to one qualified multiemployer defined benefit pension plan, the New England Teamsters and Trucking Industry Pension Fund ("Pension Plan"). The Pension Plan provides retirement benefits to participants based on their service to contributing employers. 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* 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 DISCLOSURE ABOUT MARKET RISK

In the normal course of business we are exposed to market risks, including changes in interest rates and certain commodity prices. We have a variety of strategies to mitigate these market risks, including at times using derivative instruments to hedge some portion of these risks.

Interest Rate Volatility

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. In fiscal year 2020, we entered into three forward starting interest rate derivative agreements with a total notional amount of \$60.0 million that will serve to replace existing interest rate derivative agreements upon their expiration between June 2022 and May 2023. In fiscal year 2020, we also amended three interest rate derivative agreements to settle each of the 1.0% floors and replace each with a 0.0% floor in line with our Term Loan Facility, which resulted in us redesignating the original hedging relationships. We subsequently designated new hedging relationships between the three interest rate derivative agreements and the variable rate interest payments related to the Term Loan Facility based on a quantitative assessment that was performed using regression analysis, which indicated that the hedging relationships were highly effective. Because the interest rate payments associated with the variable rate portion of our long-term debt will still occur, the net loss of \$(0.8) million associated with the redesignated interest rate derivative agreements and the \$0.4 million cash settlement received in exchange for settling the 1.0% floors in accumulated other comprehensive loss were not reclassified into earnings. Instead, this loss and settlement amount will continue to be reclassified from accumulated other comprehensive loss into interest expense as the interest payments affect earnings.

As of both December 31, 2020 and December 31, 2019, our interest rate derivative agreements have a total notional amount of \$190.0 million. According to the terms of the agreements, we receive interest based on the 1-month LIBOR index and pay interest at a weighted average rate of approximately 2.5%. The agreements mature between February 2021 and May 2023.

Additionally, we have forward starting interest rate derivative agreements with a total notional amount of \$125.0 million that mature between February 2026 and May 2028. We receive interest based on the 1-month LIBOR index, restricted by a 0.0% floor, and will pay interest at a weighted average rate of approximately 1.6%.

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, 2020, we have \$198.4 million of fixed rate debt as of December 31, 2020 in addition to the \$190.0 million fixed through our interest rate derivative agreements. We had interest rate risk relating to approximately \$160.0 million of long-term debt as of December 31, 2020. The weighted average interest rate on the variable rate portion of long-term debt was approximately 1.9% at December 31, 2020. 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 \$1.6 million.

Commodity Price Volatility

Through our recycling operation, 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 commodity price fluctuations including: (1) charging collection customers a floating sustainability recycling adjustment fee to offset recycling commodity risks; (2) in-bound material recovery facilities ("MRF") customers receiving 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 recycling 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. We do not use financial instruments for trading purposes and are not a party to any leveraged derivatives. As of December 31, 2020, we were not party to any commodity hedging agreements.

Should commodity prices change by \$10 per ton, we estimate that our annual operating income margin would change by approximately \$0.3 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.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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, 2020 and 2019, and the related consolidated statements of operations, comprehensive income, stockholders' equity (deficit) and cash flows for each of the three years in the period ended December 31, 2020, and the related notes (collectively, the financial statements). We also have audited the Company's internal control over financial reporting as of December 31, 2020, 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, 2020 and 2019, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2020, 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, 2020, based on criteria established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013.

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 Matters

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

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 8 of the consolidated financial statements, as of December 31, 2020, the Company's landfill assets totaled \$635.1 million, and the associated amortization expense for the year ended December 31, 2020 was \$27.5 million. As described in Note 11 of the consolidated financial statements, as of December 31, 2020, the Company estimated its accrued capping, closure and post-closure costs at \$82.5 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), are estimated using a process that considers the measured density obtained from annual aerial surveys.
- Inflation rates and 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.

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 discount and inflation rates and the amount and timing of expected future cash flows.
- We tested internal and external data used by management in the future cost estimates for both landfill asset amortization expense 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 AUF 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.

Realizability of Deferred Tax Assets

As described in Note 3 and Note 17 of the consolidated financial statements, the Company utilizes estimates to determine its provision for income taxes and related assets and liabilities and any valuation allowance recorded against its gross deferred tax assets. Valuation allowances are established when a Company concludes that based on an analysis of all positive and negative evidence, it is more likely than not that a deferred tax asset will not be realized. As of December 31, 2020, the Company's deferred tax assets, before valuation allowance, were \$86.8 million. During the year ended December 31, 2020, the Company recorded a deferred tax benefit of \$61.3 million related to the reduction of a previously established valuation allowance against 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. Deferred tax assets are recorded to the extent management concludes that the assets will more likely than not be realized. Valuation allowances are established for the possibility that tax benefits may not be realized for certain deferred tax assets. In making the determination of the realizability of deferred tax assets, management considered all available positive and negative evidence, including projected future taxable income, recent financial results and estimates of future reversals of deferred tax assets and liabilities.

We identified the realizability of deferred tax assets as a critical audit matter because of the significant assumptions and judgments use by management, including projections of future taxable income and estimates of future reversals of deferred tax assets and liabilities. Auditing management's assumptions and judgements regarding the realizability of the Company's deferred tax assets involved a high degree of auditor judgment and increased audit effort, including the use of our income tax professionals.

Our audit procedures related to the realizability of the Company's deferred tax assets included the following, among others:

- We obtained an understanding of the relevant controls related to the realizability of deferred tax assets and tested such controls for design and operating effectiveness, including controls over management's evaluation of the positive and negative evidence such as future reversals of deferred tax assets and liabilities and projections of future taxable income.
- We tested the completeness and accuracy of the underlying data used by management in developing the projections of future taxable income.
- With the assistance of our tax professionals, we evaluated the reasonableness of the Company's projections of future taxable income, including the taxable income by tax jurisdiction, by comparing the projections to historical results.
- With the assistance of our tax professionals, we evaluated that the future reversals of deferred tax assets and liabilities by:
 - Recalculating the underlying schedule of reversals of deferred tax assets and liabilities.
 - Confirming that the expected reversals of deferred tax assets and liabilities are based on the actual amounts that would reverse in a particular year or are reasonably supported by the nature of the reversing item and period in which the item would be deductible.
 - Confirming that the reversals of deferred tax assets and liabilities are supported by the appropriate tax law.

/s/ RSM US LLP

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

Boston, Massachusetts

February 19, 2021

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

	December 31, 2020	December 31, 2019
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	\$ 154,342	\$ 3,471
Accounts receivable, net of allowance for credit losses of \$2,333 and \$1,468, respectively	74,198	80,205
Refundable income taxes	229	1,251
Prepaid expenses	9,289	8,994
Inventory	7,868	7,679
Other current assets	1,328	1,213
Total current assets	247,254	102,813
Property, plant and equipment, net of accumulated depreciation and amortization of \$900,882 and \$844,874, respectively	510,512	443,825
Operating lease right-of-use assets	95,310	108,025
Goodwill	194,901	185,819
Intangible assets, net	58,324	58,721
Restricted assets	1,848	1,586
Cost method investments	11,264	11,264
Deferred income taxes	61,163	8,577
Other non-current assets	13,322	11,552
Total assets	<u>\$ 1,193,898</u>	<u>\$ 932,182</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, 2020	December 31, 2019
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Current maturities of debt	\$ 9,240	\$ 4,301
Current operating lease liabilities	8,547	9,356
Accounts payable	49,198	64,396
Accrued payroll and related expenses	17,282	14,375
Accrued interest	2,126	2,041
Contract liabilities	2,685	2,299
Current accrued capping, closure and post-closure costs	10,268	10,223
Other accrued liabilities	31,862	23,598
Total current liabilities	131,208	130,589
Debt, less current portion	530,411	509,021
Operating lease liabilities, less current portion	60,979	70,709
Accrued capping, closure and post-closure costs, less current portion	72,265	61,704
Deferred income taxes	912	2,643
Other long-term liabilities	35,981	34,763
COMMITMENTS AND CONTINGENCIES		
STOCKHOLDERS' EQUITY:		
Casella Waste Systems, Inc. stockholders' equity:		
Class A common stock, \$0.01 par value per share; 100,000,000 shares authorized; 50,101,000 and 46,803,000 shares issued and outstanding, respectively	501	468
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	639,247	485,332
Accumulated deficit	(266,099)	(357,016)
Accumulated other comprehensive loss, net of tax	(11,517)	(6,041)
Total stockholders' equity	362,142	122,753
Total liabilities and stockholders' equity	\$ 1,193,898	\$ 932,182

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

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

	Fiscal Year Ended December 31,		
	2020	2019	2018
Revenues	\$ 774,584	\$ 743,290	\$ 660,660
Operating expenses:			
Cost of operations	515,646	508,656	453,291
General and administration	102,410	92,782	84,791
Depreciation and amortization	90,782	79,790	70,508
Southbridge Landfill closure charge, net	4,587	2,709	8,054
Expense from acquisition activities and other items	1,862	2,687	1,872
Withdrawal costs - multiemployer pension plan	—	3,591	—
Contract settlement charge	—	—	2,100
Development project charge	—	—	311
	<u>715,287</u>	<u>690,215</u>	<u>620,927</u>
Operating income	<u>59,297</u>	<u>53,075</u>	<u>39,733</u>
Other expense (income):			
Interest income	(303)	(367)	(273)
Interest expense	22,371	25,102	26,294
Loss on debt extinguishment	—	—	7,352
Impairment of investments	—	—	1,069
Other income	(1,073)	(1,439)	(745)
Other expense, net	<u>20,995</u>	<u>23,296</u>	<u>33,697</u>
Income before income taxes	38,302	29,779	6,036
Benefit for income taxes	(52,804)	(1,874)	(384)
Net income	<u>\$ 91,106</u>	<u>\$ 31,653</u>	<u>\$ 6,420</u>

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

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

	Fiscal Year Ended December 31,		
	2020	2019	2018
Basic earnings per common share:			
Weighted average common shares outstanding	48,793	47,226	42,688
Basic earnings per common share	\$ 1.87	\$ 0.67	\$ 0.15
Diluted earnings per common share:			
Weighted average common shares outstanding	49,045	47,966	44,168
Diluted earnings per common share	\$ 1.86	\$ 0.66	\$ 0.15

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,		
	2020	2019	2018
Net income	\$ 91,106	\$ 31,653	\$ 6,420
Other comprehensive loss, before tax:			
Hedging activity:			
Interest rate swap settlements	(3,644)	(498)	(361)
Interest rate swap amounts reclassified into interest expense	3,679	115	287
Unrealized loss resulting from changes in fair value of derivative instruments	(7,540)	(4,350)	(1,400)
Other comprehensive loss	(7,505)	(4,733)	(1,474)
Tax effect related to items of other comprehensive loss	(2,029)	—	—
Other comprehensive loss, net of tax	(5,476)	(4,733)	(1,474)
Comprehensive income	\$ 85,630	\$ 26,920	\$ 4,946

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

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

	Casella Waste Systems, Inc. Stockholders' Equity (Deficit)							
	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, 2017	\$ (37,862)	41,298	\$ 413	988	\$ 10	\$ 356,638	\$ (395,107)	\$ 184
Cumulative effect of new accounting principle	—	—	—	—	—	—	18	(18)
Issuances of Class A common stock	1,017	496	5	—	—	1,012	—	—
Issuance of Class A common stock - acquisition	7,622	150	1	—	—	7,621	—	—
Stock-based compensation	8,445	—	—	—	—	8,445	—	—
Comprehensive income:								
Net income	6,420	—	—	—	—	—	6,420	—
Other comprehensive loss								
Hedging activity	(1,474)	—	—	—	—	—	—	(1,474)
Balance, December 31, 2018	(15,832)	41,944	419	988	10	373,716	(388,669)	(1,308)
Cumulative effect of new accounting principle	100,446	3,565	36	—	—	100,410	—	—
Issuances of Class A common stock	3,996	1,227	12	—	—	3,984	—	—
Issuance of Class A common stock - acquisition	—	67	1	—	—	(1)	—	—
Stock-based compensation	7,223	—	—	—	—	7,223	—	—
Comprehensive income:								
Net income	31,653	—	—	—	—	—	31,653	—
Other comprehensive loss								
Hedging activity	(4,733)	—	—	—	—	—	—	(4,733)
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 - acquisition	—	36	1	—	—	(1)	—	—
Issuances of Class A common stock	939	559	5	—	—	934	—	—
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	<u>\$ 362,142</u>	<u>50,101</u>	<u>\$ 501</u>	<u>988</u>	<u>\$ 10</u>	<u>\$ 639,247</u>	<u>\$ (266,099)</u>	<u>\$ (11,517)</u>

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,		
	2020	2019	2018
Cash Flows from Operating Activities:			
Net income	\$ 91,106	\$ 31,653	\$ 6,420
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	90,782	79,790	70,508
Depletion of landfill operating lease obligations	7,781	7,711	9,724
Interest accretion on landfill and environmental remediation liabilities	7,090	6,976	5,708
Amortization of debt issuance costs and discount on long-term debt	2,169	2,293	2,449
Stock-based compensation	8,219	7,223	8,445
Operating lease right-of-use assets expense	8,476	9,559	—
Loss (gain) on sale of property and equipment	936	(892)	(492)
Southbridge Landfill non-cash closure charge, net	263	74	16,179
Southbridge Landfill insurance recovery for investing activities	—	—	(3,506)
Development project charge	—	—	311
Non-cash expense from acquisition activities and other items	554	65	757
Loss on debt extinguishment	—	—	7,352
Impairment of investments	—	—	1,069
Withdrawal costs - multiemployer pension plan	—	2,230	—
Deferred income taxes	(52,288)	(1,244)	1,250
Changes in assets and liabilities, net of effects of acquisitions and divestitures:			
Accounts receivable	5,815	(5,464)	(5,833)
Landfill operating lease contract expenditures	(5,386)	(5,307)	—
Accounts payable	(15,226)	6,762	9,091
Prepaid expenses, inventories and other assets	(1,211)	(1,669)	535
Accrued expenses, contract liabilities and other liabilities	(9,158)	(22,931)	(9,133)
Net cash provided by operating activities	139,922	116,829	120,834
Cash Flows from Investing Activities:			
Acquisitions, net of cash acquired	(32,457)	(75,379)	(88,918)
Additions to property, plant and equipment	(108,108)	(103,165)	(73,232)
Payments on landfill operating lease contracts	—	—	(7,415)
Proceeds from sale of property and equipment	533	750	870
Proceeds from Southbridge Landfill insurance recovery for investing activities	—	—	3,506
Proceeds from property insurance settlement	—	332	992
Net cash used in investing activities	(140,032)	(177,462)	(164,197)
Cash Flows from Financing Activities:			
Proceeds from debt borrowings	157,000	197,800	634,700
Principal payments on debt	(149,378)	(243,374)	(584,223)
Payments of debt issuance costs	(1,531)	(749)	(5,573)
Proceeds from the exercise of share based awards	100	3,355	471
Proceeds from the public offering of Class A Common Stock	144,790	100,446	—
Proceeds from unregistered sale of Class A Common Stock	—	2,619	—
Net cash provided by financing activities	150,981	60,097	45,375
Net increase (decrease) in cash and cash equivalents	150,871	(536)	2,012
Cash and cash equivalents, beginning of period	3,471	4,007	1,995
Cash and cash equivalents, end of period	\$ 154,342	\$ 3,471	\$ 4,007

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,		
	2020	2019	2018
Supplemental Disclosures of Cash Flow Information:			
Cash paid during the period for:			
Interest	\$ 20,117	\$ 23,183	\$ 23,523
Income tax (refunds) payments, net	\$ (1,534)	\$ (1,631)	\$ 105
Supplemental Disclosures of Non-Cash Investing and Financing Activities:			
Non-current assets acquired through long-term obligations	\$ 18,069	\$ 13,053	\$ 7,092

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"), its consolidated subsidiaries and any partially owned entities over which it has a controlling financial interest (collectively, "we", "us" or "our"), is a regional, vertically integrated solid waste services company that provides collection, transfer, disposal, landfill, landfill gas-to-energy, recycling and organics services in the northeastern United States. We market recyclable metals, aluminum, plastics, paper, and corrugated cardboard, which have been processed at our recycling facilities, as well as recyclables purchased from third-parties. Effective January 1, 2020, we reorganized our operations to consist of a single resource-renewal focused operation by combining our larger-scale recycling and commodity brokerage operations along with our organics services and large scale commercial and industrial services into our Resource Solutions operating segment. We continue to 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. Legal, tax, information technology, human resources, certain finance and accounting and other administrative functions are included in our Corporate Entities operating segment. Segment information reported in the fiscal years ended December 31, 2019 ("fiscal year 2019") and 2018 ("fiscal year 2018"), and as of December 31, 2019 has been reclassified to conform with the fiscal year ended December 31, 2020 ("fiscal year 2020") and as of December 31, 2020 presentation.

The accompanying consolidated financial statements, which include the accounts of the Parent, our wholly-owned subsidiaries and any partially owned entities over which we have a controlling financial interest, 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.

Recent Events

With the global outbreak of the novel coronavirus ("COVID-19") and the declaration of a pandemic by the World Health Organization in March 2020, the U.S. Government and all of the states in which we operate have declared the waste services industry as an essential services provider and as a result we are committed to continue to operate and provide our full breadth of services. We have prioritized the safety and well-being of our employees by strictly adhering to recommendations of the Centers for Disease Control and Prevention as well as executive orders of the states in which we operate.

The COVID-19 pandemic has caused, and will continue to cause, economic disruption across our geographic footprint and has adversely affected, and is expected to continue to adversely affect, our business. The COVID-19 pandemic negatively impacted our revenues starting at the end of the first quarter of fiscal year 2020, as many small business and construction collection customers required service level changes and volumes into our landfills declined due to lower economic activity. Even with the continued negative impact of the COVID-19 pandemic, we did experience improved demand for services as local economies started to reopen as allowed by State Governments. This positive trend continued through December 31, 2020, as additional small business collection customers increased service levels, construction activity continued to rebound, and overall higher economic activity across the northeast led to higher landfill volumes. Despite these positive trends, our collection and disposal operations were negatively impacted by lower volumes attributable to the COVID-19 pandemic in fiscal year 2020, extending into the first quarter of fiscal year 2021.

The COVID-19 pandemic has negatively impacted and will continue to impact our business in other ways, as we have experienced and continue to experience increased costs in response to the COVID-19 pandemic, including, but not limited to, higher costs associated with providing a safe working environment for our employees (such as increased costs associated with the protection of our employees, including costs for additional safety equipment, hygiene products and enhanced facility cleaning), potential employee layoffs or furloughs, employee impacts from illness, supporting a remote administration workforce, community response measures, the inability of customers to continue to pay for services, and temporary closures of our facilities or the facilities of our customers. In early September 2020, we also paid a special bonus to all our hourly employees (both frontline and administrative) to recognize their hard work and commitment to safety, environmental compliance and high customer service standards as essential service providers during the COVID-19 pandemic. We have taken measures to reduce costs in other areas and preserve liquidity during this period of uncertainty. As of the date of this filing, we are unable to determine or predict the nature, duration or scope of the overall impact that the COVID-19 pandemic will have on our business, results of operations, liquidity and capital resources. For further information regarding the impact of the COVID-19 pandemic on us, see Item 1A, "Risk Factors" included in this Annual Report on Form 10-K.

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 we adopted and deemed to have a 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
Accounting standards adopted effective January 1, 2020		
ASU No. 2016-13, as amended through March 2020: Financial Instrument Credit Losses (Topic 326)	Requires that an entity measures all of its expected credit losses for financial assets held based on historical experience, current conditions, and reasonable and supportable forecasts.	We adopted this guidance effective January 1, 2020 using the required modified-retrospective approach. We recognized a cumulative effect adjustment of \$(189) to retained earnings upon implementation. This guidance replaces the incurred loss methodology with an expected loss methodology that is referred to as the current expected credit loss ("CECL") methodology. CECL requires consideration of past events, current conditions, and reasonable and supportable forecasts about the future to assess credit loss estimates and will generally result in the earlier recognition of an allowance for credit losses. We have updated our business processes and systems and controls to support recognition and disclosure under the new guidance. See Note 6, <i>Accounts Receivable, Net of Allowance for Credit Losses</i> for additional disclosure.

A table providing a brief description of recent ASUs to the ASC issued by the 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
Accounting standards issued pending adoption		
ASU No. 2020-04: Reference Rate Reform (Topic 848)	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 or another reference rate expected to be discontinued, subject to meeting certain criteria.	We are currently assessing the provisions of this guidance and do not expect that its adoption will have an impact on our consolidated financial statements and related disclosures. This guidance will be in effect from March 12, 2020 through December 31, 2022.
ASU No. 2019-12: Income Taxes (Topic 740)	Reduces the complexity over accounting for income taxes by removing certain exceptions and amending guidance to improve consistent application of accounting over income taxes.	We don't anticipate that this guidance will have a material impact on our consolidated financial statements and related disclosures upon adoption, but may in the future. This guidance is effective January 1, 2021.

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, accounts receivable valuation allowance, 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 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, 2020, 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. Additions – charged to expense in the fiscal year 2020 consider the current economic conditions associated with the COVID-19 pandemic 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* 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 over the amortization of landfill development costs and Note 8, *Property, Plant and Equipment* for disclosure over 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 2020, 2019 and 2018 was \$413, \$263 and \$140, 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 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.

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 (1.6% as of December 31, 2020). 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, 2020 is between approximately 8.2% and 10.2%, 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 \$6,436, \$6,227 and \$5,556 in fiscal years 2020, 2019 and 2018, 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 11, *Final Capping, Closure and Post-Closure Costs* for disclosure over 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, 2020 and December 31, 2019 totaled \$205,048 and \$220,633, respectively. Letters of credit securing closure and post-closure obligations as of December 31, 2020 and December 31, 2019 totaled \$0 and \$0, respectively. See Note 7, *Restricted Assets* for disclosure over 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. 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.

Under ASU No. 2016-02, Leases ("Topic 842"), 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 sheet. For other non-core operating leases, which is comprised of small-dollar-value items such as office equipment, we continued to expense these costs in the period incurred rather than capitalizing such expenditures on our consolidated balance sheet. 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 9, *Leases* for further disclosure over lease costs and other lease information.

Goodwill and Intangible Assets

Goodwill. Goodwill is the excess of our purchase cost 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 10, *Goodwill and Intangible Assets* for disclosure over goodwill.

Intangible Assets. Intangible assets consist primarily of covenants not-to-compete and customer lists. Intangible assets are recorded at fair value and are amortized based on the economic benefit provided or using the straight-line method over their estimated useful lives. Covenants not-to-compete and customer lists are typically amortized over a term of no more than 10 years. See Note 10, *Goodwill and Intangible Assets* for disclosure over 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, 2020 and December 31, 2019, 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 both December 31, 2020 and December 31, 2019, we had cost method investments totaling \$11,264.

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, restricted cash reserved to finance certain capital projects, interest rate derivatives, 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 over debt and financial instruments, respectively. See the “*Derivatives and Hedging*” accounting policy below for the fair value disclosure over 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 over 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 over 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. Our maximum exposure in fiscal year 2020 under the workers' compensation plan was \$1,250 per individual event. Our maximum exposure in fiscal year 2020 under the automobile plan was \$3,650 per individual event. 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 \$16,946 and \$16,853 as of December 31, 2020 and December 31, 2019, 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, de-recognition 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.

In the fourth quarter of fiscal year 2020, we determined it was more likely than not that its deferred tax assets would be realized in the future and released the valuation allowance on the majority of its net operating loss carryforwards and other deferred tax assets as of December 31, 2020, resulting in a benefit of \$54,966 in income taxes. See Note 17, *Income Taxes* for disclosure related to income taxes, including the effect of the valuation allowance release.

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 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 objective for utilizing derivative instruments is to reduce our exposure to fluctuations in cash flows due to changes in the commodity prices of recycled paper and adverse movements in interest rates.

Our strategy to hedge against fluctuations in the commodity prices of recycled paper is to enter into hedges to mitigate the variability in cash flows generated from the sales of recycled paper at floating prices, resulting in a fixed price being received from these sales. We evaluate the hedges and ensure that these instruments qualify for hedge accounting pursuant to derivative and hedging guidance. Designated as highly effective cash flow hedges, both the effective and ineffective portion of the change in the fair value of these derivatives is recorded in our stockholders' equity as a component of accumulated other comprehensive loss until the hedged item is settled and recognized as part of commodity revenue. If the price per short ton of the underlying commodity, as reported on the Official Board Market, is less than the contract price per short ton, we receive the difference between the average price and the contract price (multiplied by the notional tons) from the respective counter-party. If the price per short ton of the underlying commodity exceeds the contract price per short ton, we pay the calculated difference to the counter-party. The fair value of commodity hedges is obtained or derived from our counter-parties using valuation models that take into consideration market price assumptions for commodities based on underlying active markets. We were not party to any commodity hedge contracts as of December 31, 2020.

Our strategy to hedge against fluctuations in variable interest rates involves entering into interest rate derivative agreements to hedge against adverse movements in interest rates. For interest rate derivatives deemed to be highly effective cash flow hedges, both the effective and ineffective portion of the change in fair value of these derivatives is recorded in our stockholders' equity as a component of accumulated other comprehensive loss and reclassified into earnings through interest expense in the same period or periods during which the hedged transaction affects earnings. See Note 15, *Fair Value of Financial Instruments* for fair value disclosure over derivative instruments and Note 12, *Debt* for further disclosure over 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 over 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.

Revenue Recognition

We disaggregate our revenues by applicable service line: collection, landfill, transfer, customer solutions, recycling, organics, transportation and landfill gas-to-energy. 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. Rebates to certain customers associated with payments for recycled or organic materials that are received and subsequently processed and sold to other third-parties amounted to \$4,960 and \$4,428 in fiscal years 2020 and 2019, respectively. 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 2020, 2019, or 2018 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 \$74,162 and \$80,191 as of December 31, 2020 and December 31, 2019, 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 transferred to the customer. Contract liabilities of \$2,685 and \$2,299 as of December 31, 2020 and December 31, 2019, respectively, are presented separately on the face of 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, 2019 and December 31, 2018 was recognized as revenue during fiscal years 2020 and 2019, respectively, when the services were performed. See Note 4, *Revenue Recognition* for disclosure over the new guidance.

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 at the end 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 recycling and customer solutions lines-of-business, which are included in 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 2020. As of October 1, 2020, our Eastern, Western, recycling and customer 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, recycling and customer solutions reporting units exceeded its carrying value by in excess of 77.2%. We incurred no impairment of goodwill as a result of our annual goodwill impairment tests in fiscal years 2020, 2019 or 2018. 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 2020 or 2019.

As of December 31, 2018, we owned 6.8% of the outstanding common stock of Recycle Rewards, Inc. ("Recycle Rewards"), a company that markets an incentive-based recycling service. In fiscal year 2018, it was determined based on the operating performance of Recycle Rewards that our cost method investment in Recycle Rewards was potentially impaired. As a result, we performed a valuation analysis in fiscal year 2018, which used an income approach based on discounted cash flows to determine an equity value for Recycle Rewards in order to properly value our cost method investment in Recycle Rewards. Based on this analysis, it was determined that the fair value of our cost method investment in Recycle Rewards was less than the carrying amount and, therefore, we recorded an other-than-temporary investment impairment charge for the full cost method investment amount of \$1,069 in fiscal year 2018. In October 2019, Recycle Rewards sold all or substantially all of its assets comprising the business to RTS RecycleBank, LLC, a subsidiary of Recycle Track Systems, pursuant to an asset purchase agreement. Based on our junior ownership position, we did not receive any proceeds from this disposition.

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, the New England Teamsters and Trucking Industry Pension Fund ("Pension Plan"). The Pension Plan provides retirement benefits to participants based on their service to contributing employers. 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 over the Pension Plan.

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, including market-based performance stock options, restricted stock, restricted stock units and performance stock units, including market-based performance stock units.

The fair value of each stock option grant is estimated using a Black-Scholes option-pricing model, with the exception of market-based performance stock option grants which are valued using a Monte Carlo option-pricing model. The fair value of restricted stock, restricted stock unit and performance 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* for disclosure over stock-based compensation.

Earnings per Share

Basic earnings per share is computed by dividing the net income by the weighted average number of common shares outstanding during the period. Diluted earnings per share is calculated based on the combined weighted average number of common shares and potentially dilutive shares. Dilutive shares include the assumed exercise of employee stock options, including market-based performance stock options based on the expected achievement of performance targets, unvested restricted stock awards, unvested restricted stock units and unvested performance stock units, including market-based performance 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 over the calculation of earnings per share.

Subsequent Events

Except as disclosed, no material subsequent events have occurred since December 31, 2020 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, customer solutions, recycling, organics, transportation and landfill gas-to-energy.

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 and industrial services, which typically have a standard contract duration of three years, along with municipal services that are generally performed pursuant to contracts with municipalities with varying terms. The majority of our residential collection services are performed on a subscription basis with individual households.

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.

Recycling

Recycling services primarily consist of the collection and/or receipt of recycled materials at one of our materials recovery facilities; the processing or sorting of the recycled materials; and the disposal or sale of the recycled materials. Revenues from recycling services consist of revenues derived from municipalities and customers in the form of processing fees, tipping fees and commodity sales. 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.

Customer solutions

Customer solutions services consist of commercial and industrial offerings. Commercial services consist of traditional collection, disposal and recycling services provided to large account multi-site customers. Industrial services consist of overall resource management services provided to large and complex organizations, such as universities, hospitals, manufacturers and municipalities, delivering a wide range of environmental services and zero waste solutions.

Organics

Organics services primarily consist of the collection and/or receipt of organic materials at one of our processing or disposal facilities; the processing of the organic materials; and the disposal or sale of the organic materials.

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.

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

Fiscal Year Ended December 31, 2020

	Eastern	Western	Resource Solutions	Total Revenues
Collection	\$ 153,815	\$ 243,740	\$ —	\$ 397,555
Landfill	20,696	64,833	—	85,529
Transfer	44,751	34,166	—	78,917
Customer solutions	—	—	86,680	86,680
Recycling	8	1,251	50,236	51,495
Organics	—	—	59,394	59,394
Transportation	—	10,942	—	10,942
Landfill gas-to-energy	1,015	3,057	—	4,072
Total revenues	\$ 220,285	\$ 357,989	\$ 196,310	\$ 774,584
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	\$ 220,285	\$ 357,989	\$ 196,310	\$ 774,584

Fiscal Year Ended December 31, 2019

	Eastern	Western	Resource Solutions	Total Revenues
Collection	\$ 154,805	\$ 223,034	\$ —	\$ 377,839
Landfill	19,362	73,657	—	93,019
Transfer	44,413	31,725	—	76,138
Customer solutions	—	—	79,457	79,457
Recycling	5	1,486	42,820	44,311
Organics	—	—	56,326	56,326
Transportation	—	12,624	—	12,624
Landfill gas-to-energy	890	2,686	—	3,576
Total revenues	\$ 219,475	\$ 345,212	\$ 178,603	\$ 743,290
Transferred at a point-in-time	\$ 159	\$ 921	\$ 23,206	\$ 24,286
Transferred over time	219,316	344,291	155,397	719,004
Total revenues	\$ 219,475	\$ 345,212	\$ 178,603	\$ 743,290

Fiscal Year Ended December 31, 2018

	Eastern	Western	Resource Solutions	Total Revenues
Collection	\$ 136,661	\$ 170,278	\$ —	\$ 306,939
Landfill	28,419	66,567	—	94,986
Transfer	39,991	27,592	—	67,583
Customer solutions	—	—	67,464	67,464
Recycling	5	3,823	42,191	46,019
Organics	—	—	54,174	54,174
Transportation	—	18,366	—	18,366
Landfill gas-to-energy	1,397	3,732	—	5,129
Total revenues	\$ 206,473	\$ 290,358	\$ 163,829	\$ 660,660
Transferred at a point-in-time	\$ 648	\$ 1,145	\$ 31,181	\$ 32,974
Transferred over time	205,825	289,213	132,648	627,686
Total revenues	\$ 206,473	\$ 290,358	\$ 163,829	\$ 660,660

5. BUSINESS COMBINATIONS

In fiscal year 2020, we acquired ten businesses: seven tuck-in solid waste collection businesses and a solid waste collection business in our Western region, a transportation business in our Eastern region, and one recycling operation in our Resource Solutions operating segment. In fiscal year 2019, we acquired nine businesses: three tuck-in solid waste collection businesses in our Eastern region, four tuck-in solid waste collection businesses, a business comprised of solid waste collection, transfer and recycling operations, and a business comprised of solid waste hauling and transfer assets in our Western region. In fiscal year 2018 we acquired nine businesses: six solid waste collection businesses and one transfer business in our Western region; and two businesses comprised of solid waste collection and transfer operations in our Eastern region.

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. Acquired intangible assets other than goodwill that are subject to amortization include client lists and non-compete covenants. These are amortized over a five to ten-year period from the date of acquisition. All amounts recorded to goodwill in fiscal years 2020 and 2019, except goodwill related to certain acquisitions are expected to be deductible for tax purposes.

The purchase price paid for these acquisitions and the allocation of the purchase price is as follows:

	Fiscal Year Ended December 31,		
	2020	2019	2018
Purchase Price:			
Cash used in acquisitions, net of cash acquired	\$ 28,990	\$ 72,118	\$ 86,686
Notes payable	—	2,714	—
Class A common stock issued	—	—	4,258
Other non-cash considerations	—	5,470	—
Contingent consideration and holdbacks	4,490	1,875	8,521
Total	33,480	82,177	99,465
Current assets	181	2,051	3,276
Non-current assets	—	367	—
Land	895	2,487	—
Buildings	1,908	5,422	7,889
Equipment	13,493	20,482	23,882
Other liabilities, net	(484)	(3,122)	(4,708)
Deferred tax liability	—	(2,385)	(937)
Intangible assets	8,405	31,171	29,934
Fair value of assets acquired and liabilities assumed	24,398	56,473	59,336
Excess purchase price to be allocated to goodwill	\$ 9,082	\$ 25,704	\$ 40,129

The following unaudited pro forma combined information shows our operational results as though each of the acquisitions completed had occurred as of January 1, 2018.

	Fiscal Year Ended December 31,		
	2020	2019	2018
Revenues	\$ 783,177	\$ 794,840	\$ 774,210
Operating income	\$ 59,467	\$ 56,674	\$ 49,586
Net income	\$ 91,064	\$ 33,424	\$ 11,708
Basic weighted average shares outstanding	48,793	47,226	42,688
Basic earnings per common share	\$ 1.87	\$ 0.71	\$ 0.27
Diluted weighted average shares outstanding	49,045	47,966	44,168
Diluted earnings per common share	\$ 1.86	\$ 0.70	\$ 0.27

The pro forma results 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, 2018 or the results of our future operations. Furthermore, the 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,		
	2020	2019	2018
Balance at beginning of period	\$ 1,468	\$ 931	\$ 809
Cumulative effect of new accounting principle	189	—	—
Additions - charged to expense	1,971	1,360	1,620
Deductions - bad debts written off, net of recoveries	(1,295)	(823)	(1,498)
Balance at end of period	<u>\$ 2,333</u>	<u>\$ 1,468</u>	<u>\$ 931</u>

7. RESTRICTED ASSETS

Restricted assets consist of 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.

A summary of restricted assets is as follows:

	December 31,	
	2020	2019
Non Current:		
Restricted investment securities - landfill closure	<u>\$ 1,848</u>	<u>\$ 1,586</u>

8. PROPERTY, PLANT AND EQUIPMENT

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

	December 31,	
	2020	2019
Land	\$ 30,061	\$ 28,703
Landfills	635,144	578,814
Finance lease right-of-use assets	39,683	24,038
Buildings and improvements	169,325	161,316
Machinery and equipment	178,104	168,735
Rolling stock	204,333	183,145
Containers	154,744	143,948
	1,411,394	1,288,699
Less: accumulated depreciation and amortization	(900,882)	(844,874)
	<u>\$ 510,512</u>	<u>\$ 443,825</u>

Depreciation expense for fiscal years 2020, 2019 and 2018 was \$54,370, \$45,060 and \$35,351, respectively. Landfill amortization expense for fiscal years 2020, 2019 and 2018 was \$27,520, \$27,512 and \$31,841, respectively.

9. LEASES

A schedule of lease costs and other lease information follows:

	Fiscal Year Ended December 31, 2020	Fiscal Year Ended December 31, 2019
Lease cost:		
Amortization of right-of-use assets	\$ 3,736	\$ 2,122
Interest expense	1,201	767
Fixed lease cost - vehicles, equipment and property	8,476	9,559
Fixed lease cost - landfill operating leases	7,781	7,711
Fixed lease cost	16,257	17,270
Short-term lease cost	3,430	3,878
Variable lease cost	514	190
Total lease cost	\$ 25,138	\$ 24,227

Other information:

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

Financing cash flows for finance leases	\$ 4,940	\$ 2,601
Operating cash flows for operating leases	\$ 13,078	\$ 13,840
Right-of-use assets obtained in exchange for new finance lease liabilities	\$ 18,003	\$ 9,433
Right-of-use assets obtained in exchange for new operating lease liabilities	\$ 3,845	\$ 3,351

	December 31, 2020
Weighted-average remaining lease term - finance leases (years)	5.7
Weighted-average remaining lease term - operating leases (years)	10.6
Weighted-average discount rate - finance leases	4.2 %
Weighted-average discount rate - operating leases	4.8 %

Estimated minimum future lease obligations are as follows:

	Operating Leases	Finance Leases
Fiscal year ending December 31, 2021	\$ 11,702	\$ 6,286
Fiscal year ending December 31, 2022	9,664	6,058
Fiscal year ending December 31, 2023	7,435	5,860
Fiscal year ending December 31, 2024	6,638	5,760
Fiscal year ending December 31, 2025	7,512	5,605
Thereafter	47,570	6,861
Total lease payments	90,521	36,430
Less: interest expense	(20,995)	(4,944)
Lease liability balance	\$ 69,526	\$ 31,486

10. GOODWILL AND INTANGIBLE ASSETS

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

	December 31, 2019	Acquisitions	December 31, 2020
Eastern	\$ 30,720	\$ 153	\$ 30,873
Western	141,055	8,929	149,984
Resource Solutions	14,044	—	14,044
Total	\$ 185,819	\$ 9,082	\$ 194,901

	December 31, 2018	Acquisitions	Other (1)	December 31, 2019
Eastern	\$ 28,154	\$ 2,566	\$ —	\$ 30,720
Western	120,536	23,138	(2,619)	141,055
Resource Solutions	14,044	—	—	14,044
Total	<u>\$ 162,734</u>	<u>\$ 25,704</u>	<u>\$ (2,619)</u>	<u>\$ 185,819</u>

(1) Relates to unregistered sale of Class A common stock that was previously held in escrow and released to us for liquidation. See Note 14, *Stockholders' Equity* for additional disclosure.

A summary of intangible assets is as follows:

	Covenants Not-to-Compete	Client Lists	Total
Balance, December 31, 2020			
Intangible assets	\$ 26,971	\$ 78,809	\$ 105,780
Less accumulated amortization	(20,547)	(26,909)	(47,456)
	<u>\$ 6,424</u>	<u>\$ 51,900</u>	<u>\$ 58,324</u>

	Covenants Not-to-Compete	Client Lists	Total
Balance, December 31, 2019			
Intangible assets	\$ 26,162	\$ 71,122	\$ 97,284
Less accumulated amortization	(18,968)	(19,595)	(38,563)
	<u>\$ 7,194</u>	<u>\$ 51,527</u>	<u>\$ 58,721</u>

Intangible amortization expense for fiscal years 2020, 2019 and 2018 was \$8,893, \$7,218 and \$3,316, respectively.

The intangible amortization expense estimated for the five fiscal years following fiscal year 2020 and thereafter is as follows:

Estimated Future Amortization Expense as of December 31, 2020

Fiscal year ending December 31, 2021	\$ 7,869
Fiscal year ending December 31, 2022	\$ 7,208
Fiscal year ending December 31, 2023	\$ 6,969
Fiscal year ending December 31, 2024	\$ 7,898
Fiscal year ending December 31, 2025	\$ 8,116
Thereafter	\$ 20,264

11. 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,	
	2020	2019
Beginning balance	\$ 71,927	\$ 73,075
Obligations incurred	3,840	2,549
Revisions in estimates (1)	4,531	(1,538)
Accretion expense	6,436	6,227
Obligations settled (2)	(4,201)	(8,386)
Ending balance	<u>\$ 82,533</u>	<u>\$ 71,927</u>

(1) Relates to changes in estimates and assumptions concerning anticipated waste flow, cost 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.

12. DEBT

A summary of debt is as follows:

	December 31,	
	2020	2019
Senior Secured Credit Facility:		
Revolving Credit Facility due May 2023 ("Revolving Credit Facility"); bearing interest at LIBOR plus 1.75%	\$ —	\$ 26,900
Term Loan A Facility due May 2023 ("Term Loan Facility"); bearing interest at LIBOR plus 1.75%	350,000	350,000
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	—
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") due April 2036 - fixed rate interest period through 2028; bearing interest at 4.625%	16,000	16,000
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 4.2%	31,486	18,364
Notes payable maturing through June 2027; bearing interest at a weighted average of 3.5%	4,933	5,464
Principal amount of debt	548,419	522,728
Less—unamortized discount and debt issuance costs (1)	8,768	9,406
Debt less unamortized discount and debt issuance costs	539,651	513,322
Less—current maturities of debt	9,240	4,301
	<u>\$ 530,411</u>	<u>\$ 509,021</u>

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

	December 31,	
	2020	2019
Revolving Credit Facility and Term Loan Facility (collectively, the "Credit Facility")	\$ 3,839	\$ 5,478
New York Bonds 2014R-1	1,000	1,057
New York Bonds 2014R-2	329	390
New York Bonds 2020	1,461	—
FAME Bonds 2005R-3	347	432
FAME Bonds 2015R-1	482	552
FAME Bonds 2015R-2	343	417
Vermont Bonds	487	541
New Hampshire Bonds	480	539
	<u>\$ 8,768</u>	<u>\$ 9,406</u>

Credit Facility

In fiscal year 2018, we entered into a credit agreement ("Credit Agreement"), which provides for a \$350,000 aggregate principal amount Term Loan Facility and a \$200,000 Revolving Credit Facility. The net proceeds from this transaction were used to repay in full the amounts outstanding of the \$350,000 aggregate principal amount term loan B facility ("Term Loan B Facility") and the \$160,000 revolving line of credit facility plus accrued and unpaid interest thereon and to pay related transaction expenses. 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 May 2023 and bears interest at a rate of LIBOR plus 1.75% per annum, which will be reduced to a rate of LIBOR plus as low as 1.25% 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, 2020, further advances were available under the Credit Facility in the amount of \$173,575. The available amount is net of outstanding irrevocable letters of credit totaling \$26,425, at which date no amount had been drawn.

The 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, 2020, we were in compliance with the covenants contained in the Credit Agreement. In addition to these financial covenants, the Credit Agreement also 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. 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. As of December 31, 2020, we had outstanding \$40,000 aggregate principal amount of New York Bonds 2020.

In fiscal year 2019, we completed the remarketing of \$25,000 aggregate principal amount of New York Bonds 2014R-1. As of December 31, 2020, 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"). 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 and to pay certain costs of issuance of the New York Bonds 2014.

Maine Bonds. In fiscal year 2018, we completed the issuance of \$15,000 aggregate principal amount of FAME Bonds 2015R-2. As of December 31, 2020, 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, and to pay certain costs of the issuance of the FAME Bonds.

Vermont Bonds. In fiscal year 2018, we completed the remarketing of \$16,000 aggregate principal amount of 4.75% fixed rate senior unsecured Vermont Bonds. As of December 31, 2020, we had outstanding \$16,000 aggregate principal amount of Vermont Bonds. The Vermont Bonds, 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 mature on April 1, 2036. We borrowed the proceeds of the Vermont Bonds to finance or refinance certain qualifying property, plant and equipment assets purchased in the state of Vermont.

New Hampshire Bonds. In fiscal year 2019, we completed the remarketing of \$11,000 aggregate principal amount of senior unsecured New Hampshire Bonds. As of December 31, 2020, 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. During the fixed interest rate period, the New Hampshire Bonds are not supported by a letter of credit. Interest is payable on April 1 and October 1 of each year. 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.

Loss on Debt Extinguishment

In order to lower our borrowing costs and reduce our market risk we completed the following transactions that resulted in a loss on debt extinguishment in fiscal years 2020, 2019 and 2018 of \$0, \$0 and \$7,352, respectively:

- the write-off of debt issuance costs and unamortized discount, in the case of our Term Loan B Facility in fiscal year 2018, associated with the refinancing of our previously outstanding senior secured credit facility in fiscal year 2018; and
- the write-off of debt issuance costs in connection with the remarketing of our Vermont Bonds in fiscal year 2018.

Interest Expense

The components of interest expense are as follows:

	Fiscal Year Ended December 31,		
	2020	2019	2018
Interest expense on long-term debt and finance leases	\$ 20,084	\$ 22,553	\$ 23,431
Amortization of debt issuance costs and discount on long-term debt	2,169	2,293	2,449
Letter of credit fees	531	519	554
Less: capitalized interest	(413)	(263)	(140)
Total interest expense	\$ 22,371	\$ 25,102	\$ 26,294

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 enter into interest rate derivative agreements to manage exposure to fluctuations in interest rates related to variable rate interest payments of our long-term debt.

In fiscal year 2020, we entered into three forward starting interest rate derivative agreements with a total notional amount of \$60,000 that will serve to replace existing interest rate derivative agreements upon their expiration between June 2022 and May 2023. In fiscal year 2020, we also amended three interest rate derivative agreements to settle each of the 1.0% floors and replace each with a 0.0% floor in line with our Term Loan Facility, which resulted in us redesignating the original hedging relationships. We subsequently designated new hedging relationships between the three interest rate derivative agreements and the variable rate interest payments related to the Term Loan Facility based on a quantitative assessment that was performed using regression analysis, which indicated that the hedging relationships were highly effective. Because the interest rate payments associated with the variable rate portion of our long-term debt will still occur, the net loss of \$(765) associated with the redesignated interest rate derivative agreements and the \$430 cash settlement received in exchange for settling the 1.0% floors in accumulated other comprehensive loss were not reclassified into earnings. Instead, this loss and settlement amount will continue to be reclassified from accumulated other comprehensive loss into interest expense as the interest payments affect earnings.

As of both December 31, 2020 and December 31, 2019, our interest rate derivative agreements had a total notional amount of \$190,000. According to the terms of the agreements, we receive interest based on the 1-month LIBOR index and pay interest at a weighted average rate of approximately 2.5%. The agreements mature between February 2021 and May 2023.

Additionally, we have forward starting interest rate derivative agreements with a total notional amount of \$125,000 that mature between February 2026 and May 2028. We receive interest based on the 1-month LIBOR index, restricted by a 0.0% floor, and will pay interest at a weighted average rate of approximately 1.6%.

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.

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

	Balance Sheet Location	Fair Value	
		December 31, 2020	December 31, 2019
Interest rate swaps	Other accrued liabilities	\$ 4,774	\$ 1,824
Interest rate swaps	Other long-term liabilities	8,463	3,603
Total		\$ 13,237	\$ 5,427
Interest rate swaps	Accumulated other comprehensive loss, net	\$ (13,434)	\$ (5,929)
Interest rate swaps - tax benefit (provision)	Accumulated other comprehensive loss, net	1,917	(112)
		\$ (11,517)	\$ (6,041)

A summary of the impact of the cash flow hedging relationships related to interest rate swaps reclassified from accumulated other comprehensive loss, net into earnings follows:

Statement of Operations Location	Fiscal Year Ended December 31,		
	2020	2019	2018
	(Expense) Income		
Interest expense	\$ (3,679)	\$ (115)	\$ (287)

Fair Value of Debt

As of December 31, 2020, the fair value of our fixed rate debt, including the FAME Bonds, Vermont Bonds, New York Bonds 2020, New York Bonds 2014 and New Hampshire Bonds was approximately \$174,161 and the carrying value was \$162,000. The fair value of the FAME Bonds, Vermont Bonds, 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, 2020, the carrying value of our Term Loan Facility was \$350,000 and the carrying value of our Revolving Credit Facility was \$0. 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, 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 are as follows:

Estimated Future Payments as of December 31, 2020

Fiscal year ending December 31, 2021	\$	9,240
Fiscal year ending December 31, 2022		16,700
Fiscal year ending December 31, 2023		343,443
Fiscal year ending December 31, 2024		5,502
Fiscal year ending December 31, 2025		30,564
Thereafter		142,970
	\$	<u>548,419</u>

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.

In accordance with FASB ASC 450 - Contingencies, we accrue for legal proceedings, inclusive of legal costs, when losses become probable and reasonably estimable. 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.

Environmental Remediation Liability (including related litigation)

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. The following matters represent our material outstanding claims.

Southbridge Recycling & Disposal Park, Inc.

In October 2015, our Southbridge Recycling and Disposal Park, Inc. ("SRD") subsidiary reported to the Massachusetts Department of Environmental Protection ("MADEP") results of analysis of samples collected pursuant to our existing permit from private drinking water wells located near the Town of Southbridge, Massachusetts ("Town") Landfill ("Southbridge Landfill"), which was operated by SRD and later closed in November 2018 when Southbridge Landfill reached its final capacity. Those results indicated the presence of contaminants above the levels triggering notice and response obligations under MADEP regulations. In response to those results, we carried out an Immediate Response Action pursuant to Massachusetts General Law Chapter 21E (the "Charlton 21E Obligations"). Further, we implemented a plan to analyze and better understand the groundwater near the Southbridge Landfill and we investigated with the objective of identifying the source or sources of the elevated levels of contamination measured in the well samples. If it is determined that some or all of the contamination originated at the Southbridge Landfill, we will work with the Town (the Southbridge Landfill owner and the former operator of an unlined portion of the Southbridge Landfill, which was used prior to our operation of a double-lined portion of the Southbridge Landfill commencing in 2004) to evaluate and allocate the liabilities related to the Charlton 21E Obligations. In July 2016, we sent correspondence to the Town pursuant to Chapter 21E of Massachusetts General Laws demanding that the Town reimburse us for the environmental response costs we had spent and that the Town be responsible for all such costs in the future, as well as any other costs or liabilities resulting from the release of contaminants from the unlined portion of the Southbridge Landfill. The Town responded in September 2016, denying that the Southbridge Landfill is the source of such contamination, and claiming that if it is, that we may owe an indemnity to the Town pursuant to the Operating Agreement between us and the Town dated May 29, 2007, as amended. We entered into a Tolling Agreement with the Town to delay any further administrative or legal actions until our work with MADEP more specifically defines the parties' responsibilities for the Charlton 21E Obligations, if any. Please see below for further discussion of our relationship with the Town regarding the Charlton 21E Obligations.

In February 2016, we and the Town received a Notice of Intent to Sue under the Resource Conservation and Recovery Act ("RCRA") from a law firm purporting to represent residents proximate to the Southbridge Landfill ("Residents"), indicating its intent to file suit against us on behalf of the Residents alleging the groundwater contamination originated from the Southbridge Landfill. In February 2017, we received an additional Notice of Intent to Sue from the National Environmental Law Center ("NELC") under the Federal Clean Water Act ("CWA") and RCRA (collectively the "Acts") on behalf of Environment America, Inc., d/b/a Environment Massachusetts, and Toxics Action Center, Inc., which have referred to themselves as the Citizen Groups. The Citizen Groups alleged that we had violated the Acts, and that they intended to seek appropriate relief in federal court for those alleged violations. On or about June 17, 2017, a lawsuit was filed against us, SRD and the Town in the United States District Court for the District of Massachusetts (the "Massachusetts Court") by the Citizen Groups and the Residents alleging violations of the Acts (the "Litigation"), and demanding a variety of remedies under the Acts, including fines, remediation, mitigation and costs of litigation, and remedies for violations of Massachusetts civil law related to personal and property damages, including remediation, diminution of property values, compensation for lost use and enjoyment of properties, enjoinder of further operation of the Southbridge Landfill, and costs of litigation, plus interest on any damage award, on behalf of the Residents. We believed the Litigation to be factually inaccurate, and without legal merit, and we and SRD vigorously defended the Litigation.

In December 2017, we filed a Motion to Dismiss the Litigation, and on October 1, 2018, the Massachusetts Court granted our Motion to Dismiss, and accordingly, dismissed the Citizen Groups' claims under the Acts. The Massachusetts Court retained jurisdiction of the Residents' claims. The Citizen Groups indicated an intent to appeal the Massachusetts Court's decision to grant our Motion to Dismiss. In this regard, the Massachusetts Court denied the Citizen Groups' motion for an interlocutory appeal. The Residents moved for a stay of their case until the Citizen Groups appealed. We opposed the stay and in March 2019, the Massachusetts Court denied the Residents motion for a stay.

On September 18, 2020, we and the Town reached an agreement for settlement of all claims by the Citizens Groups and the Residents, upon the payment of \$2,000 by us, and \$1,000 by the Town, for a total of \$3,000 to the Residents (the "Settlement"). In addition to resolving the claims of the Residents, the Citizens Groups have agreed to not appeal the decision of the Massachusetts Court to dismiss their previously alleged claims, although we have agreed to assent to a motion by the Citizens Groups to the Massachusetts Court to vacate the Massachusetts Court's earlier decision. The settlement documents were finalized on October 23, 2020, and we made a settlement payment of \$2,000 in the fiscal year ended December 31, 2020. See Note 18, *Other Items and Charges* for further discussion.

We entered into an Administrative Consent Order on April 26, 2017 (the "ACO"), with MADEP, the Town, and the Town of Charlton, committing us to equally share the costs with MADEP, of up to \$10,000 (\$5,000 each) for the Town to install a municipal waterline in the Town of Charlton ("Waterline"). Upon satisfactory completion of that Waterline, and other matters covered by the ACO, we and the Town will be released by MADEP from any future responsibilities for the Charlton 21E Obligations. We also entered into an agreement with the Town on April 28, 2017 entitled the "21E Settlement and Water System Construction Funding Agreement" (the "Waterline Agreement"), wherein we and the Town released each other from claims arising from the Charlton 21E Obligations. Pursuant to the Waterline Agreement, the Town issued a twenty (20) year bond for our portion of the Waterline costs in the amount of \$4,089. We have agreed to reimburse the Town for periodic payments under such bond. Construction of the Waterline is complete and homeowners are relying on municipal water supply. Bond reimbursement to the Town commenced in the quarter ended June 30, 2020.

We have recorded an environmental remediation liability related to our obligation associated with installation of the Waterline in other accrued liabilities and other long-term liabilities. 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 of 2.6%. Our expenditures could be significantly higher if costs exceed estimates.

A summary of the changes to the environmental remediation liability associated with the Southbridge Landfill follows:

	Fiscal Year Ended December 31,	
	2020	2019
Beginning balance	\$ 4,596	\$ 5,173
Accretion expense	118	124
Obligations incurred	28	—
Revisions in estimates (1)	(188)	—
Obligations settled (2)	(293)	(701)
Ending balance	<u>\$ 4,261</u>	<u>\$ 4,596</u>

(1) The revision of estimate is associated with the completion of the environmental remediation at the site. See Note 18, *Other Items and Charges* to our consolidated financial statements for further discussion.

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

During 2020, we received permit approvals to cap the entire Southbridge Landfill, and we completed capping of the side slopes during the 2020 construction season. Capping of the remaining top deck will be completed during 2021, and full approval for closure is anticipated during 2022.

The costs and liabilities we may be required to incur in connection with the foregoing Southbridge Landfill matters could be material to our results of operations, our cash flows and our financial condition.

Potsdam Environmental Remediation Liability

On December 20, 2000, the State of New York Department of Environmental Conservation (“DEC”) issued an Order on Consent (“Order”) which named Waste-Stream, Inc. (“WSI”), our subsidiary, General Motors Corporation (“GM”) and Niagara Mohawk Power Corporation (“NiMo”) as Respondents. The Order required that the Respondents undertake certain work on a 25-acre scrap yard and solid waste transfer station owned by WSI in Potsdam, New York, including the preparation of a Remedial Investigation and Feasibility Study (“Study”). A draft of the Study was submitted to the DEC in January 2009 (followed by a final report in May 2009). The Study estimated that the undiscounted costs associated with implementing the preferred remedies would be approximately \$10,219. On February 28, 2011, the DEC issued a Proposed Remedial Action Plan for the site and accepted public comments on the proposed remedy through March 29, 2011. We submitted comments to the DEC on this matter. In April 2011, the DEC issued the final Record of Decision (“ROD”) for the site. The ROD was subsequently rescinded by the DEC for failure to respond to all submitted comments. The preliminary ROD, however, estimated that the present cost associated with implementing the preferred remedies would be approximately \$12,130. The DEC issued the final ROD in June 2011 with proposed remedies consistent with its earlier ROD. An Order on Consent and Administrative Settlement naming WSI and NiMo as Respondents was executed by the Respondents and DEC with an effective date of October 25, 2013. On January 29, 2016, a Cost-Sharing Agreement was executed between WSI, NiMo, Alcoa Inc. (“Alcoa”) and Reynolds Metal Company (“Reynolds”) whereby Alcoa and Reynolds elected to voluntarily participate in the onsite remediation activities at a combined 15% participant share. The majority of the remediation work has been completed as of December 31, 2020. WSI is jointly and severally liable with NiMo, Alcoa and Reynolds for the total cost to remediate.

We have recorded an environmental remediation liability associated with the Potsdam site based on incurred costs to date and estimated costs to complete the remediation in other accrued liabilities and other long-term liabilities. 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 of 1.9%.

A summary of the changes to the environmental remediation liability associated with the Potsdam site follows:

	Fiscal Year Ended December 31,	
	2020	2019
Beginning balance	\$ 1,151	\$ 5,614
Obligations settled (1)	(212)	(4,463)
Ending balance	\$ 939	\$ 1,151

(1) May include amounts that are being processed through accounts payable as a part of our disbursements cycle.

The total expected environmental remediation payments, in today’s dollars, for each of the five succeeding fiscal years and the aggregate amount thereafter are as follows:

Estimated Future Environmental Remediation Payments as of December 31, 2020

Fiscal year ending December 31, 2021	\$ 377
Fiscal year ending December 31, 2022	319
Fiscal year ending December 31, 2023	335
Fiscal year ending December 31, 2024	320
Fiscal year ending December 31, 2025	345
Thereafter	4,667
Total	\$ 6,363

A reconciliation of the expected aggregate non-inflated, undiscounted environmental remediation liability to the amount recognized in the statement of financial position is as follows:

Undiscounted liability	\$ 6,363
Less discount, net	(1,163)
Liability balance - December 31, 2020	\$ 5,200

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. We are not presently aware of any other situations that would have a material adverse impact on our business, financial condition, results of operations or cash flows.

Legal Proceedings

North Country Environmental Services

On or about March 8, 2018, NELC and the Conservation Law Foundation ("CLF") (the "NH Citizen Groups") delivered correspondence to our subsidiary, North Country Environmental Services, Inc. ("NCES"), and us, providing notice of the NH Citizen Groups' intent to sue NCES and us for violations of the CWA in conjunction with NCES's operation of its landfill in Bethlehem, New Hampshire ("NCES Landfill"). On May 14, 2018, the NH Citizen Groups filed a lawsuit against NCES and us in the United States District Court for the District of New Hampshire (the "New Hampshire Court") alleging violations of the CWA, arguing that ground water discharging into the Ammonoosuc River is a "point source" under the CWA (the "New Hampshire Litigation"). The New Hampshire Litigation seeks remediation and fines under the CWA and an order requiring NCES to seek a Federal National Pollutant Discharge Elimination System permit for the operation of the NCES Landfill. On June 15, 2018, we and NCES filed a Motion to Dismiss the New Hampshire Litigation. On July 13, 2018, the NH Citizen Groups filed objections to our Motion to Dismiss. On July 27, 2018, we filed a reply in support of our Motion to Dismiss. On September 25, 2018, the New Hampshire Court denied our Motion to Dismiss. In March of 2019, we filed a motion in the New Hampshire Litigation asking for a stay of this litigation until certain appeals from discordant federal circuit courts were heard by the Supreme Court of the United States ("SCOTUS"), in the case identified as "County of Maui v. Hawaii Wildlife Fund ("MAUI")". Our motion for a stay was granted in the New Hampshire Litigation, and SCOTUS heard the case in 2019 and issued a ruling on April 23, 2020. SCOTUS remanded the case to the U.S. Court of Appeals for the Ninth Circuit in San Francisco (the "Circuit Court") ruling that the Circuit Court's standard as to whether ground water impacts navigable waters is too broad. We do not believe that the MAUI decision resolves the issues presented in the New Hampshire Litigation, and until the Circuit Court rules in the remanded MAUI case, we intend to continue to vigorously defend against the New Hampshire Litigation, which we believe is without merit. The NH Citizens Groups filed a motion with the New Hampshire Court on July 15, 2020 to amend their complaint based on MAUI. The New Hampshire Court has granted the NH Citizen Groups' motion on September 2, 2020 and encouraged the parties to file Motions for Summary Judgments. We filed our Motion for Summary Judgment on November 20, 2020.

On October 9, 2020, we received a Type I-A Permit Modification for Expansion in the Stage VI area of the NCES Landfill (the "Permit"). On November 9, 2020, CLF filed an appeal of the Permit to the New Hampshire Waste Management Council on the grounds it failed to meet the public benefit criteria. On January 19, 2021, CLF filed a Complaint for Injunctive Relief with the Grafton Superior Court to enjoin NCES from accepting waste pursuant to the new Permit until such a time as CLF has exhausted its appeal rights. We will continue to vigorously defend against this litigation.

Ontario County, New York Class Action Litigation

On or about September 17, 2019, Richard Vandemortel and Deb Vandemortel ("Named Plaintiffs") filed a class action complaint against us on behalf of similarly situated citizens ("Class Members") in Ontario County, New York (the "New York Litigation") The lawsuit has been filed in Ontario County Supreme Court (the "New York Court"). It alleges that over one thousand (1,000) citizens constitute the putative class in the New York Litigation, and it seeks damages for diminution of property values and infringement of the putative class' rights to live without interference to their daily lives due to odors emanating from the Subtitle D landfill located in Seneca, New York , which is operated by us pursuant to a long-term Operation, Maintenance and Lease Agreement with Ontario County. The New York Litigation was served on us on October 14, 2019, and the parties commenced settlement negotiations in early 2020. On December 1, 2020, the parties entered into a settlement agreement (the "Settlement Agreement") and thereafter the Named Plaintiffs and Class Members' counsel ("Counsel") moved the New York Court for entry of the Order on Notice/Preliminary Approvals. The proposed settlement payment includes a \$750 payment to a Qualified Settlement Fund for the benefit of Counsel and one-time lump sum payments to the Named Plaintiffs and Class Members who opt into the Settlement Agreement. We will also commit \$900 in expenses and capital improvements for remediation measures to be completed by December 31, 2022.

Hakes Landfill Litigation

On or about December 19, 2019, the New York State Department of Environmental Conservation ("Department") issued certain permits to us to expand the landfill owned and operated by Hakes C&D Disposal Inc. in the Town of Campbell, Steuben County, New York ("Hakes Landfill"). The permits authorize approximately five years of expansion capacity at the Hakes Landfill. The authorizations issued by the Department followed approvals issued by the Town of Campbell Planning Board ("Planning Board") in January 2019, and the Town Board of the Town of Campbell ("Town Board") in March 2019, granting site plan review and a zoning change for the project.

Litigation was commenced by the Sierra Club, several other non-governmental organizations, and several individuals ("the Petitioners"), challenging the approvals issued by the Department, the Planning Board and the Town Board in New York State Supreme Court, Steuben County (the "Hakes Litigation"). The challenge was based upon allegations that the agencies issuing these approvals did not follow the requirements of Article 8 of the Environmental Conservation Law of the State of New York, the State Environmental Quality Review Act ("SEQRA"), by failing to address certain radioactivity issues alleged by

Petitioners to be associated with certain drilling wastes authorized for disposal at the Hakes Landfill. The Department opposed the Hakes Litigation on procedural grounds. We and the Town of Campbell opposed the Hakes Litigation on the merits, and on July 31, 2020, the Court dismissed the Hakes Litigation on the merits. The Petitioners filed a notice of appeal. The time to appeal expired on February 10, 2021, and the attorney for the Petitioners confirmed that they are not pursuing the appeal. Accordingly, all approvals issued for the expansion project are now final and binding.

Conservation Law Foundation, Inc. v Robert R. Scott, Commissioner, New Hampshire Department of Environmental Services

On or about February 11, 2021, the Conservation Law Foundation filed a complaint against Robert R. Scott, Commissioner of the New Hampshire Department of Environmental Services ("DES"), in the Merrimac County (NY) Superior Court. The complaint alleges that DES has failed to comply with the duty to establish and update a solid waste plan for the State of New Hampshire, and the duty to rely on that solid waste plan in determining whether to grant permits for proposed waste disposal facilities, and seeks a declaratory judgment that DES is violating statutory solid waste planning and regulatory requirements; a writ of mandamus ordering DES to achieve compliance with the statutory solid waste plan requirement; and an order enjoining DES from reviewing, and issuing decisions on, permit applications for new or expanded waste facilities, including a landfill under development by us in Dalton, New Hampshire ("Granite Site Landfill"), as well as any further review and decision-making required for permits it has already granted, including our NCES Landfill, until it has a legally valid state solid waste plan. On or about February 16, 2021, our subsidiary, Granite State Landfill, LLC, filed a motion to intervene in the action.

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 are to be used for general corporate purposes, including potential acquisitions or development of new operations or assets with the goal of complementing or expanding our business, and for working capital and capital expenditures.

In fiscal year 2019, we completed a public offering of 3,565 shares of our Class A common stock at a public offering price of \$29.50 per share. The offering resulted in net proceeds to us of \$100,446, after deducting underwriting discounts and commissions and offering expenses. The net proceeds from the offering were and are to be used for general corporate purposes, including potential acquisitions or development of new operations or assets with the goal of complementing or expanding our business, working capital and capital expenditures.

In fiscal year 2019, we completed the unregistered sale of 59 shares of our Class A common stock at a price of \$44.15 per share. The sale resulted in net proceeds to us of \$2,619. The shares were previously held in escrow according to the terms of our acquisition of WSI and released to us for liquidation to offset costs associated with the environmental remediation of the WSI's Potsdam, New York site. We recorded a \$2,619 reduction of goodwill in line with business combination standards in place at the time the shares held in escrow were issued. See Note 13, *Commitments and Contingencies* for additional disclosure.

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, 2020 and December 31, 2019, 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, 2020, there were 1,104 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, including market-based performance stock options, restricted stock, restricted stock units and performance stock units, including 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 four year period from the date of grant.

The fair value of each stock option granted, with the exception of market-based performance stock option grants, 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 stock option holders will retain their vested stock options before exercising them and the estimated volatility of our Class A common stock price over the expected term. The fair value of each market-based performance stock option granted is estimated using a Monte Carlo option-pricing model, which also requires extensive use of accounting judgment and financial estimation, including estimates of the expected term stock option holders will retain their vested stock options before exercising them and the estimated volatility of our Class A common stock price over the expected term, but also including estimates of share price appreciation of our Class A common stock as compared to the Russell 2000 Index over the requisite service period.

Restricted stock, restricted stock units and performance 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. Performance stock units and 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, 2019	98	\$ 9.20		
Granted	—	\$ —		
Exercised	(8)	\$ 12.48		
Forfeited or expired	—	\$ —		
Outstanding, December 31, 2020	90	\$ 8.91	4.7	\$ 4,780
Exercisable, December 31, 2020	90	\$ 8.91	4.7	\$ 4,780

During fiscal years 2020, 2019 and 2018, stock-based compensation expense for stock options was \$0, \$0 and 474, respectively.

During fiscal years 2020, 2019 and 2018, the aggregate intrinsic value of stock options exercised was \$296, \$19,475 and \$1,916, respectively.

As of December 31, 2020, there was no remaining unrecognized stock-based compensation expense related to outstanding stock options.

Our calculation of stock-based compensation expense associated with stock options granted, with the exception of market-based performance stock option grants which are valued using a Monte Carlo option-pricing model, was made using the Black-Scholes valuation model. We did not grant any new stock options in fiscal years 2020, 2019 or 2018.

Expected life is calculated based on the weighted average historical life of the vested stock options, giving consideration to vesting schedules and historical exercise patterns. Risk-free interest rate is based on the U.S. Treasury yield curve for the period of the expected life of the stock option. Expected volatility is calculated using the weekly historical volatility of our Class A common stock over the expected life, except in the case of market-based performance stock option where the daily historical volatility of our Class A common stock over the expected life is used.

The Black-Scholes valuation model and the Monte Carlo option-pricing model each require 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, 2019	393	\$ 28.23		
Granted	162	\$ 47.86		
Class A common stock vested	(240)	\$ 24.17		
Forfeited or canceled	(8)	\$ 36.05		
Outstanding, December 31, 2020	307	\$ 41.55	1.7	\$ 19,009
Unvested, December 31, 2020	509	\$ 42.77	1.6	\$ 31,527

- (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 202 shares of Class A common stock currently included in unvested. The market-based performance stock unit grants that vested in fiscal year 2020 resulted in the issuance of 87 additional shares of Class A common stock.

During fiscal years 2020, 2019 and 2018, stock-based compensation expense related to restricted stock, restricted stock units and performance stock units was \$7,965, \$7,036 and \$7,821, respectively.

During fiscal years 2020, 2019 and 2018, the total fair value of other stock awards vested was \$18,329, \$8,177 and \$10,529, respectively.

As of December 31, 2020, total unrecognized stock-based compensation expense related to outstanding restricted stock was \$76, which will be recognized over a weighted average period of 2.3 years. As of December 31, 2020, total unrecognized stock-based compensation expense related to outstanding restricted stock units was \$3,751, which will be recognized over a weighted average period of 1.8 years. As of December 31, 2020, total unrecognized stock-based compensation expense related to performance stock units was \$4,597, which will be recognized over a weighted average period of 1.7 years.

The weighted average fair value of market-based performance stock units granted during fiscal year 2020 was \$50.25 per award, which was calculated using a Monte Carlo pricing model assuming a risk free interest rate of 0.57% and an expected volatility of 31.0% 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 \$254, \$186 and \$150 of stock-based compensation expense related to our Amended and Restated 1997 Employee Stock Purchase Plan during fiscal years 2020, 2019 and 2018, respectively.

Tax benefit for income taxes associated with stock-based compensation during fiscal years 2020, 2019 and 2018 of \$(6,796), \$(97) and \$(23), respectively.

Accumulated Other Comprehensive Income (Loss)

Accumulated other comprehensive income (loss) 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) are as follows:

	Marketable Securities	Interest Rate Swaps	Total
Balance as of December 31, 2017	\$ 18	\$ 166	\$ 184
Cumulative effect of new accounting principle	(18)	—	(18)
Other comprehensive loss before reclassifications	—	(1,837)	(1,837)
Amounts reclassified from accumulated other comprehensive income	—	363	363
Other comprehensive loss	—	(1,474)	(1,474)
Balance as of December 31, 2018	—	(1,308)	(1,308)
Other comprehensive loss before reclassifications	—	(5,286)	(5,286)
Amounts reclassified from accumulated other comprehensive loss	—	553	553
Other comprehensive loss	—	(4,733)	(4,733)
Balance as of December 31, 2019	—	(6,041)	(6,041)
Cumulative effect of new accounting principle	—	—	—
Other comprehensive loss before reclassifications	—	(11,184)	(11,184)
Amounts reclassified from accumulated other comprehensive loss	—	3,679	3,679
Income tax benefit related to items in other comprehensive loss	—	2,029	2,029
Other comprehensive loss	—	(5,476)	(5,476)
Balance as of December 31, 2020	\$ —	\$ (11,517)	\$ (11,517)

A summary of reclassifications out of accumulated other comprehensive income (loss) for fiscal years 2020, 2019 and 2018 is as follows:

Details About Accumulated Other Comprehensive Income (Loss) Components	Fiscal Year Ended December 31,			Affected Line Item in the Consolidated Statements of Operations
	2020	2019	2018	
Interest rate swaps	\$ 3,679	\$ 115	\$ 287	Interest expense
	3,679	115	287	Income before income taxes
	(2,029)	—	—	Benefit for income taxes
	<u>\$ 5,708</u>	<u>\$ 115</u>	<u>\$ 287</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, trade payables and long-term 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. We recognize all derivatives accounted for on the balance sheet at fair value. See Note 12, *Debt* for disclosure over 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, 2020 Using:			
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:			
Restricted investment securities - landfill closure	\$ 1,848	\$ —	\$ —
Liabilities:			
Interest rate swaps	\$ —	\$ 13,237	\$ —

Fair Value Measurement at December 31, 2019 Using:			
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:			
Restricted investment securities - landfill closure	\$ 1,586	\$ —	\$ —
Liabilities:			
Interest rate swaps	\$ —	\$ 5,427	\$ —

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 2020, 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, subject to revision. In fiscal year 2020, 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 per employee per calendar year, subject to revision. Participants vest in employer contributions ratable over a two-year period. Employer contributions for fiscal years 2020, 2019 and 2018 amounted to \$2,357, \$1,608 and \$1,319, 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. During fiscal years 2020, 2019 and 2018, 20, 23 and 26 shares, respectively, of Class A common stock were issued under this plan. As of December 31, 2020, 74 shares of Class A common stock were available for distribution under this plan.

Multiemployer Pension Plan

We make contributions to a multiemployer defined benefit pension plan, the New England Teamsters and Trucking Industry Pension Fund (the “Pension Plan”), under the terms of a collective bargaining agreement (“CBA”) that covers certain of our union represented employees. The EIN or Pension Plan Number for the Pension Plan is 04-6372430. The Pension Plan provides retirement benefits to participants based on their service to contributing employers. We do not administer the Pension Plan. The risks of participating in a multiemployer pension plan are different from a single-employer pension plan in that: (i) assets contributed to the multiemployer pension plan by one employer may be used to provide benefits to employees or former employees of other participating employers; (ii) if a participating employer stops contributing to the plan, the unfunded obligations of the plan may be required to be assumed by the remaining participating employers; and (iii) if we choose to stop participating in our multiemployer Pension Plan, we may be required to pay the plan a withdrawal amount based on the underfunded status of the plan.

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. In accordance with FASB ASC 450 - Contingencies, because of our withdrawal from the Pension Plan, we recorded an obligation of \$3,194 and a charge of \$3,591 as pension withdrawal expense, offset by a \$397 retroactive contribution credit recorded as cost of operations, in fiscal year 2019. While the withdrawal generates a fixed yearly contingent liability for us for a period of approximately seventeen (17) years, it caps 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 per the Re-entry Agreements and upon withdrawal, we re-entered the Pension Plan as a new employer with certainty from a liability perspective. As of December 31, 2020, we had a remaining obligation of \$1,757 in aggregate principal amount associated with our withdrawal. We did not, however, change the terms of our CBA with Local 170, which remained in effect until it expired on June 30, 2020, at which time a new agreement was entered into. As a new employer in the Pension Plan, our contributions are projected to fully fund the benefits accrued by our employee's in the Pension Plan. As of December 31, 2020, our employees were fully funded as a new employer in the Pension Plan, subject to the terms of the 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 2020, 2019 and 2018, we made contributions to the Pension Plan of \$390, \$409 and \$726, respectively.

17. INCOME TAXES

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

	Fiscal Year Ended December 31,		
	2020	2019	2018
Federal			
Current	\$ (951)	\$ (951)	\$ (1,902)
Deferred	(35,177)	(699)	1,255
	<u>(36,128)</u>	<u>(1,650)</u>	<u>(647)</u>
State			
Current	435	321	268
Deferred	(17,111)	(545)	(5)
	<u>(16,676)</u>	<u>(224)</u>	<u>263</u>
Benefit for income taxes	<u>\$ (52,804)</u>	<u>\$ (1,874)</u>	<u>\$ (384)</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. As of December 31, 2020, we maintained a valuation allowance of \$6,482 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 \$61,317 for fiscal year 2020 and \$3,539 from fiscal year 2019. 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.

During fiscal year 2019, we recognized a \$(2,385) deferred tax benefit, due to a reduction of the valuation allowance on acquisitions. In determining the need for a valuation allowance, we have assessed the available means of recovering deferred tax assets, including the existence of reversing temporary differences. The valuation allowance decreased due to the recognition of additional reversing temporary differences from the \$2,385 deferred tax liability recorded through goodwill on the acquisition of a company in May 2019. The deferred tax liabilities related to the acquisition was based on 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. The valuation allowance was reduced by \$(2,137) in the quarter ended June 30, 2019, with the offsetting increase in the goodwill, based on initial estimates of the acquired temporary differences. The valuation allowance was decreased by \$(248) in the quarter ended December 31, 2019, with an offsetting adjustment to goodwill, based on the availability of better estimates upon the filing of the prior year returns by the sellers.

During fiscal year 2019, we recognized a \$(297) deferred tax benefit due to a reduction of the deferred tax liability related to indefinite lived assets. The financial statement value of indefinite lived goodwill was reduced as a result of a settlement of an acquisition contingency that pre-dated the effective date of ASC 805, which resulted in a reduction of the related deferred tax liability.

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

	Fiscal Year Ended December 31,		
	2020	2019 (1)	2018
Federal statutory rate	21 %	21 %	21 %
Tax at statutory rate	\$ 8,043	\$ 6,254	\$ 1,268
State income taxes, net of federal benefit	1,615	1,008	(89)
Change in valuation allowance	(61,317)	(4,420)	(1,613)
Federal effect of change in state valuation allowance	3,803	—	—
Deductible stock awards	(3,790)	(6,004)	(2,048)
Deferred tax adjustments	(2,047)	—	—
Non-deductible expenses	656	638	633
Non-deductible officer compensation	487	1,359	2,214
Tax credits	(130)	(82)	(686)
Other, net	(124)	(627)	(63)
Benefit for income taxes	<u>\$ (52,804)</u>	<u>\$ (1,874)</u>	<u>\$ (384)</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,	
	2020	2019 (1)
Deferred tax assets:		
Accrued expenses and reserves	\$ 35,444	\$ 36,559
Net operating loss carryforwards	34,364	40,556
General business and state tax credit carryforwards	8,044	8,422
Unrealized loss on hedges and swaps	3,798	1,768
Stock awards	2,824	3,097
Book over tax depreciation of property and equipment	—	2,882
Alternative minimum tax credit carryforwards	—	951
Other	2,307	2,600
Total deferred tax assets	86,781	96,835
Less: valuation allowance	(6,482)	(67,799)
Total deferred tax assets after valuation allowance	80,299	29,036
Deferred tax liabilities:		
Amortization of intangibles	(18,044)	(22,910)
Tax over book depreciation of property and equipment	(1,875)	—
Other	(129)	(192)
Total deferred tax liabilities	(20,048)	(23,102)
Net deferred tax asset	<u>\$ 60,251</u>	<u>\$ 5,934</u>

(1) Adjusted for deductibility of certain stock awards and state tax credits, with an offset to the valuation allowance.

The net deferred tax asset at December 31, 2020 is reflected on the balance sheet as a long-term deferred federal and state tax asset of \$61,163 and a long-term deferred state tax liability of \$(912).

As of December 31, 2020, we have, for federal income tax purposes, net operating loss carryforwards of approximately \$92,494 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 \$68,195 that expire in the fiscal years ending December 31, 2021 through 2040 or that do not expire in certain jurisdictions. In addition, we have \$6,416 general business credit carryforwards which expire in the fiscal years ending December 31, 2022 through 2040 and \$2,060 state credit carryforwards which expire in fiscal years ending December 31, 2028 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 de-recognition, 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.

A reconciliation of the beginning and ending amount of gross unrecognized tax benefits is as follows:

	Fiscal Year Ended December 31,	
	2020	2019
Unrecognized tax benefits at beginning of period	\$ 1	\$ 2
Reductions resulting from lapse of statute of limitations	(1)	(1)
Unrecognized tax benefits at end of period	\$ —	\$ 1

Included in the balances at December 31, 2019 is \$1 of unrecognized tax benefits (net of the federal benefit on state issues) that, if recognized, would favorably affect the effective income tax rate in future periods.

Our continuing practice is to recognize interest and penalties related to income tax matters in income tax expense. Related to uncertain tax positions during fiscal years 2020 and 2019, we have accrued interest of \$0 and \$1 and penalties of \$0 and \$1, respectively. We accrued \$(1), \$(1) and \$(2) for interest and penalties in income tax expense related to uncertain tax positions during fiscal years 2020, 2019 and 2018, respectively.

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.

We are subject to U.S. federal income tax, as well as income tax of multiple state jurisdictions. Due to Federal and state net operating loss carryforwards, income tax returns from years ending in 1998 through 2020 remain open for examination, with limited exceptions.

18. OTHER ITEMS AND CHARGES

Southbridge Landfill Closure Charge, Net

In the fiscal year ended December 31, 2017, we initiated the plan to cease operations of our Southbridge Landfill and later closed it in November 2018 when Southbridge Landfill reached its final capacity. Accordingly, in fiscal years 2020, 2019 and 2018, we recorded charges associated with the closure of our Southbridge Landfill as follows:

	Fiscal Year Ended December 31,		
	2020	2019	2018
Legal and transaction costs (1)	\$ 2,285	\$ 2,709	\$ 2,102
Legal settlement charge (2)	2,000	—	1,216
Landfill closure project charge (3)	490	—	6,012
Environmental remediation charge (4)	(188)	—	—
Contract settlement charge (5)	—	—	8,724
Recovery on insurance settlement (6)	—	—	(10,000)
Southbridge Landfill closure charge, net	\$ 4,587	\$ 2,709	\$ 8,054

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

- (2) We established reserves and made payments associated with legal settlements associated with claims against us as part of the Southbridge Landfill closure.
- (3) We recorded a landfill closure project charge associated with increased costs under the revised closure plan at our Southbridge Landfill.
- (4) We recorded an environmental remediation reversal associated with the completion of environmental remediation at the site.
- (5) We recorded a contract settlement charge associated with the closure of Southbridge Landfill and the remaining future obligations due to the Town of Southbridge under the landfill operating agreement with the Town of Southbridge.
- (6) We recorded a recovery on an environmental insurance settlement associated with the Southbridge Landfill closure.

See Note 13, *Commitments and Contingencies* for further disclosure over the Southbridge Landfill closure..

Expense from Acquisition Activities and Other Items

In fiscal year 2020, we recorded a charge of \$1,862 comprised primarily of legal, consulting and other similar costs associated with the acquisition and integration of acquired businesses or select development projects. In fiscal year 2019, we recorded a charge of \$2,687 associated primarily with acquisition activities. In fiscal year 2018, we recorded a charge of \$1,872 associated with acquisition activities and the write-off of deferred costs related to the expiration of our shelf registration statement. See Note 5, *Business Combinations* for disclosure regarding acquisition activity.

Contract Settlement Charge

In fiscal year 2018, we recorded a contract settlement charge of \$2,100 associated with the termination and discounted buy-out of a commodities marketing and brokerage agreement.

Development Project Charge

In fiscal year 2018, we recorded a development project charge of \$311 associated with previously deferred costs that were written off as a result of the negative vote in a public referendum relating to the NCES Landfill.

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,		
	2020	2019	2018
Numerator:			
Net income	\$ 91,106	\$ 31,653	\$ 6,420
Denominator:			
Class A common stock	50,101	46,803	41,944
Class B common stock	988	988	988
Shares to be issued - acquisition	—	36	103
Unvested restricted stock	(2)	—	(9)
Effect of weighted average shares outstanding	(2,294)	(601)	(338)
Basic weighted average common shares outstanding	48,793	47,226	42,688
Impact of potentially dilutive securities:			
Dilutive effect of stock options and stock awards	252	740	1,480
Diluted weighted average common shares outstanding	49,045	47,966	44,168
Antidilutive potentially issuable shares	—	2	2

20. RELATED PARTY TRANSACTIONS

Services

During fiscal years 2020, 2019 and 2018, 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 services. Total purchased services charged to operations or capitalized to landfills for fiscal years 2020, 2019 and 2018 were \$13,046, \$7,574 and \$3,442, respectively, of which \$1,297 and \$851 were outstanding and included in either accounts payable or other current liabilities as of December 31, 2020 and December 31, 2019, respectively.

In addition to the total purchased services, we provided various waste collection and disposal services to CCI. Total revenues recorded for fiscal years 2020, 2019 and 2018 were \$288, \$132 and \$156, 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 2020, 2019 and 2018 under these agreements was \$319, \$339 and \$349, 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 the fiscal year ending December 31, 2024. In fiscal years 2020, 2019 and 2018, we paid \$8, \$9 and \$14, respectively, pursuant to this agreement. As of December 31, 2020 and December 31, 2019, we have accrued \$25 and \$37, 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, landfill, landfill gas-to-energy, transfer and recycling services in the northeastern United States. We classify our resource-renewal services by service in our Resource Solutions operating segment. Revenues associated with our resource-renewal operations are derived from organics services, large scale commercial and industrial services, as well as recycling services generated from both municipalities and customers in the form of processing fees, tipping fees and commodity sales. Legal, tax, information technology, human resources, certain finance and accounting and other administrative functions are included in our Corporate Entities operating segment.

Fiscal Year Ended December 31, 2020

Operating 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)	—	—	—	—	—	—
Total	\$ 774,584	\$ —	\$ 90,782	\$ 59,297	\$ 22,068	\$ 108,108	\$ 194,901	\$ 1,193,898

Fiscal Year Ended December 31, 2019

Operating Segment	Outside revenues	Inter-company revenue	Depreciation and amortization	Operating income (loss)	Interest expense, net	Capital expenditures	Goodwill	Total assets
Eastern	\$ 219,475	\$ 54,738	\$ 24,322	\$ 9,503	\$ 218	\$ 24,499	\$ 30,720	\$ 207,060
Western	345,212	98,420	47,650	42,019	63	63,547	141,055	599,047
Resource Solutions	178,603	10,762	5,342	5,807	156	12,475	14,044	90,660
Corporate Entities	—	—	2,476	(4,254)	24,298	2,644	—	35,415
Eliminations	—	(163,920)	—	—	—	—	—	—
Total	\$ 743,290	\$ —	\$ 79,790	\$ 53,075	\$ 24,735	\$ 103,165	\$ 185,819	\$ 932,182

Fiscal Year Ended December 31, 2018

Operating Segment	Outside revenues	Inter-company revenue	Depreciation and amortization	Operating income (loss)	Interest expense, net	Capital expenditures	Goodwill	Total assets
Eastern	\$ 206,473	\$ 52,866	\$ 26,538	\$ 4,684	\$ 12	\$ 23,393	\$ 28,154	\$ 184,679
Western	290,358	82,240	35,827	41,631	405	41,821	120,536	430,045
Resource Solutions	163,829	7,684	5,697	(1,916)	(3,104)	5,360	14,044	79,403
Corporate Entities	—	—	2,446	(4,666)	28,708	2,658	—	38,283
Eliminations	—	(142,790)	—	—	—	—	—	—
Total	\$ 660,660	\$ —	\$ 70,508	\$ 39,733	\$ 26,021	\$ 73,232	\$ 162,734	\$ 732,410

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

	Fiscal Year Ended December 31,					
	2020		2019		2018	
Collection	\$ 391,438	50.5 %	\$ 372,041	50.1 %	\$ 303,418	45.9 %
Disposal	175,546	22.7 %	181,895	24.5 %	181,110	27.4 %
Power generation	4,072	0.5 %	3,576	0.5 %	5,129	0.8 %
Processing	7,218	1.0 %	7,175	0.9 %	7,174	1.1 %
Solid waste operations	578,274	74.7 %	564,687	76.0 %	496,831	75.2 %
Organics	59,394	7.6 %	56,326	7.5 %	54,174	8.2 %
Customer solutions	86,680	11.2 %	79,457	10.7 %	67,464	10.2 %
Recycling	50,236	6.5 %	42,820	5.8 %	42,191	6.4 %
Resource Solutions	196,310	25.3 %	178,603	24.0 %	163,829	24.8 %
Total revenues	\$ 774,584	100.0 %	\$ 743,290	100.0 %	\$ 660,660	100.0 %

22. QUARTERLY FINANCIAL INFORMATION (UNAUDITED)

The following is a summary of certain items in the consolidated statements of operations by quarter:

Fiscal Year 2020	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Revenues	\$ 182,910	\$ 188,767	\$ 202,667	\$ 200,240
Operating income	\$ 7,012	\$ 17,444	\$ 20,633	\$ 14,208
Net income	\$ 959	\$ 12,113	\$ 15,117	\$ 62,917
Earnings per common share:				
Basic weighted average common shares outstanding	48,005	48,348	48,370	50,436
Basic earnings per share	\$ 0.02	\$ 0.25	\$ 0.31	\$ 1.25
Diluted weighted average common shares outstanding	48,262	48,563	48,619	50,719
Diluted earnings per share	\$ 0.02	\$ 0.25	\$ 0.31	\$ 1.24

Fiscal Year 2019	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Revenues	\$ 163,664	\$ 187,459	\$ 198,547	\$ 193,619
Operating income	\$ 4,442	\$ 15,544	\$ 18,485	\$ 14,604
Net (loss) income	\$ (1,714)	\$ 11,915	\$ 12,386	\$ 9,066
Earnings per common share:				
Basic weighted average common shares outstanding	45,913	47,464	47,690	47,811
Basic earnings per share	\$ (0.04)	\$ 0.25	\$ 0.26	\$ 0.19
Diluted weighted average common shares outstanding	45,913	48,221	48,361	48,583
Diluted earnings per share	\$ (0.04)	\$ 0.25	\$ 0.26	\$ 0.19

Our transfer and disposal revenues historically have been lower from the months of November through March. This seasonality reflects the lower volume of waste during the late fall, winter and early spring months. Since certain of our operating and fixed costs remain constant throughout fiscal year, operating income is impacted by a similar seasonality. In addition, particularly harsh weather conditions typically result in increased operating costs.

Our recycling business experiences increased volumes of newspaper in November and December due to increased retail activity during the holiday season.

In the fourth quarter of fiscal year 2020, we unwound the valuation allowance on the majority of our net operating loss carryforwards and other deferred tax assets as of December 31, 2020, resulting in an increase in a benefit for income taxes of \$(53,644) in the three months ended December 31, 2020.

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, 2020. 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, 2020, 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, 2020. 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, 2020, 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, 2020 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.

Changes in Internal Control Over Financial Reporting

No change in our internal control over financial reporting occurred during the fiscal quarter ended December 31, 2020 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

On February 17, 2021, our Board of Directors amended our Third Amended and Restated By-Laws to add a new Section 5.10 to Article V containing exclusive forum selection provisions. The new Section 5.10 provides that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware (or, if the Court of Chancery of the State of Delaware does not have jurisdiction, the federal district court for the District of Delaware) shall, to the fullest extent permitted by law, be the sole and exclusive forum for: (i) any derivative action or proceeding brought on behalf of us, (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers, other employees or stockholders to us or our stockholders, (iii) any action asserting a claim arising pursuant to any provision of the General Corporation Law of the State of Delaware or as to which the General Corporation Law of the State of Delaware confers jurisdiction on the Court of Chancery of the State of Delaware, or (iv) any action asserting a claim arising pursuant to any provision of our certificate of incorporation or the Third Amended and Restated By-Laws or governed by the internal affairs doctrine; provided, however, that this exclusive forum selection provision shall not apply to claims arising under the Securities Act of 1933 or the Securities Exchange Act of 1934 or any other claim for which the federal courts have exclusive jurisdiction. In addition, unless we consent in writing to the selection of an alternative forum, the federal district courts of the United States of America shall, to the fullest extent permitted by law, be the sole and exclusive forum for the resolution of any claims arising under the Securities Act of 1933.

The foregoing description is qualified in its entirety by reference to the full text of Amendment No. 1 to Third Amended and Restated By-Laws, a copy of which is included as part of Exhibit 3.2 to this Annual Report on Form 10-K and is incorporated in this Item 9B, "*Other Information*" by reference.

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 2021 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, 2020 (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 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, 2020:

Plan Category	(a) Number of securities to be issued upon exercise of outstanding options, warrants and rights (1)	(b) Weighted-average exercise price of outstanding options, warrants and rights (2)	(c) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a) (3))
Equity compensation plans approved by security holders	395,343	\$ 8.91	1,178,181
Equity compensation plans not approved by security holders	—	—	—
Total	395,343	\$ 8.91	1,178,181

- (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 202,061 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 1,103,971 shares of our Class A common stock issuable under our 2016 Incentive Plan and 74,210 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, 2020 and December 31, 2019.
 Consolidated Statements of Operations for fiscal years 2020, 2019 and 2018.
 Consolidated Statements of Comprehensive Income for fiscal years 2020, 2019 and 2018.
 Consolidated Statement of Stockholders' Equity (Deficit) for fiscal years 2020, 2019 and 2018.
 Consolidated Statements of Cash Flows for fiscal years 2020, 2019 and 2018.
 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
2.1	Agreement and Plan of Merger dated as of January 12, 1999 and as amended by Amendments No. 1, 2 and 3 thereto, among Casella Waste Systems, Inc. ("Casella"), KTI, Inc. ("KTI") and Rutland Acquisition Sub, Inc. (incorporated herein by reference to Annex A to the registration statement on Form S-4 of Casella as filed November 12, 1999(file no. 333-90913)).
2.2	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)).
2.3	Stock Purchase Agreement dated as of December 6, 2012 among Casella, Blow Bros., the stockholders of Blow Bros. named therein, Arthur E. St. Hilaire (solely in his capacity as the Representative), and Trash Lady, LLC and Trash Lady NH, LLC (incorporated herein by reference to Exhibit 10.1 to the current report on Form 8-K of Casella as filed on December 10, 2012 (file no. 000-23211)).
2.4	Membership Interest Purchase Agreement dated December 5, 2013, by and among Casella Waste Systems, Inc. and the other parties named therein (incorporated herein by reference to Exhibit 10.1 to the current report on Form 8-K of Casella as filed on December 5, 2013 (file no. 000-23211)).
3.1	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)).
3.2 +	Third Amended and Restated By-Laws of Casella Waste Systems, Inc., as amended (incorporated herein by reference to Exhibit 3.1 to the current report on Form 8-K of Casella as filed on February 27, 2009 (file no. 000-23211)).
4.1	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)).
4.2	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)).
4.3 +	Description of Securities Registered Under Section 12 of the Exchange Act.
4.4	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)).
4.5	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)).

Exhibit No.	Description
4.6	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)).
4.7	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)).
4.8	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)).
4.9	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)).
4.10	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)).
4.11	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)).
4.12	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)).
4.13	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)).
4.14	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)).
4.15	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)).
4.16	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)).
4.17	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)).
10.1	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)).
10.2	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)).
10.3	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)).

Exhibit No.	Description
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>
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>Employment Agreement between Casella and Edwin D. Johnson dated as of July 6, 2010 (incorporated herein by reference to Exhibit 10.1 to the quarterly report on Form 10-Q of Casella as filed on September 3, 2010 (file no. 000-23211)).</u>
10.20*	<u>Letter Agreement between Casella and Edwin D. Johnson dated as of February 12, 2013 (incorporated herein by reference to Exhibit 10.26 to the annual report on Form 10-K of Casella as filed on June 27, 2014 (file no. 000-23211)).</u>

Exhibit No.	Description
10.21*	Employment Agreement between Casella and David L. Schmitt dated as of May 31, 2006, as amended (incorporated herein by reference to Exhibit 10.27 to the annual report on Form 10-K of Casella as filed on June 27, 2014 (file no. 000-23211)).
10.22*	Employment Agreement between Casella and Edmond Coletta dated as of September 1, 2012 (incorporated herein by reference to Exhibit 10.28 to the annual report on Form 10-K of Casella as filed on June 27, 2014 (file no. 000-23211)).
10.23*	Employment Agreement between Casella and Christopher B. Heald dated as of March 1, 2016 (incorporated herein by reference to Exhibit 10.4 to the current report on Form 8-K of Casella as filed on March 7, 2016 (file no. 000-23211)).
10.24*+	Letter to David L. Schmitt from Casella dated as of October 13, 2020.
10.25*+	Employment Agreement between Casella and Shelley E. Sayward dated as of January 1, 2021.
10.26*+	Letter Agreement between Casella and Edmond Coletta dated as of February 17, 2021.
10.27*+	Letter Agreement between Casella and Christopher B. Heald dated as of February 17, 2021.
10.28	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)).
10.29*	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)).
10.30*	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)).
10.31*	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)).
10.32*	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)).
10.33*	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)).
10.34*	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)).
10.35*	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)).
10.36*	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)).
10.37*	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)).
10.38*	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)).
10.39*	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)).

Exhibit No.	Description
10.40*	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)).
10.41*	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)).
10.42*	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)).
10.43	Credit Agreement, dated as of May 14, 2018, 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 9-K of Casella as filed on May 15, 2018 (file No. 000-23211)).
10.44	Master Lease Agreement dated as of July 20, 2020 by and between Banc 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)).
10.45	Addendum to Master Lease Agreement No. 36629-90000 dated as of July 20, 2020 by and among Banc 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)).
21.1 +	Subsidiaries of Casella Waste Systems, Inc.
23.1 +	Consent of RSM US LLP
31.1 +	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.
31.2 +	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.
32.1 +	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.
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, 2020 and December 31, 2019, (ii) Consolidated Statements of Operations for fiscal years 2020, 2019 and 2018, (iii) Consolidated Statements of Comprehensive Income for fiscal years 2020, 2019 and 2018, (iv) Consolidated Statement of Stockholders' Equity (Deficit) for fiscal years 2020, 2019 and 2018, (v) Consolidated Statements of Cash Flows for fiscal years 2020, 2019 and 2018, 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.

Dated: February 19, 2021

Casella Waste Systems, Inc.

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 19, 2021
<u>/s/ Edmond R. Coletta</u> Edmond R. Coletta	Senior Vice President and Chief Financial Officer (Principal Financial Officer)	February 19, 2021
<u>/s/ Christopher B. Heald</u> Christopher B. Heald	Vice President and Chief Accounting Officer (Principal Accounting Officer)	February 19, 2021
<u>/s/ Douglas R. Casella</u> Douglas R. Casella	Director	February 19, 2021
<u>/s/ Joseph G. Doody</u> Joseph G. Doody	Director	February 19, 2021
<u>/s/ Rose Stuckey Kirk</u> Rose Stuckey Kirk	Director	February 19, 2021
<u>/s/ James F. Callahan, Jr.</u> James F. Callahan, Jr.	Director	February 19, 2021
<u>/s/ James E. O'Connor</u> James E. O'Connor	Director	February 19, 2021
<u>/s/ William P. Hulligan</u> William P. Hulligan	Director	February 19, 2021
<u>/s/ Michael K. Burke</u> Michael K. Burke	Director	February 19, 2021
<u>/s/ Michael L. Battles</u> Michael L. Battles	Director	February 19, 2021
<u>/s/ Emily Nagle Green</u> Emily Nagle Green	Director	February 19, 2021

THIRD AMENDED AND RESTATED
BY-LAWS
OF
CASELLA WASTE SYSTEMS, INC.

Effective: February 26, 2009

CASELLA WASTE SYSTEMS, INC.
BY-LAWS
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BY-LAWS
OF
CASELLA WASTE SYSTEMS, INC.

ARTICLE 1 - Stockholders

1.1. Place of Meetings. All meetings of stockholders shall be held at such place within or without the State of Delaware as may be designated from time to time by the Board of Directors or the Chief Executive Officer or, if not so designated, at the registered office of the corporation.

1.2. Annual Meeting. The annual meeting of stockholders for the election of directors and for the transaction of such other business as may properly be brought before the meeting shall be held on a date to be fixed by the Board of Directors or the Chief Executive Officer (which date shall not be a legal holiday in the place where the meeting is to be held) at the time and place to be fixed by the Board of Directors or the Chief Executive Officer and stated in the notice of the meeting. If no annual meeting is held in accordance with the foregoing provisions, the Board of Directors shall cause the meeting to be held as soon thereafter as convenient. If no annual meeting is held in accordance with the foregoing provisions, a special meeting may be held in lieu of the annual meeting, and any action taken at that special meeting shall have the same effect as if it had been taken at the annual meeting, and in such case all references in these By-laws to the annual meeting of the stockholders shall be deemed to refer to such special meeting.

1.3. Special Meetings. Special meetings of stockholders may be called at any time by the Chief Executive Officer or by the Chairman of the Board. Business transacted at any special meeting of stockholders shall be limited to matters relating to the purpose or purposes stated in the notice of meeting.

1.4. Notice of Meetings. Except as otherwise provided by law, written notice of each meeting of stockholders, whether annual or special, shall be given not less than 10 nor more than 60 days before the date of the meeting to each stockholder entitled to vote at such meeting. The notices of all meetings shall state the place, date and hour of the meeting. The notice of a special meeting shall state, in addition, the purpose or purposes for which the meeting is called. If mailed, notice is given when deposited in the United States mail, postage prepaid, directed to the stockholder at his address as it appears on the records of the corporation.

1.5. Voting List. The officer who has charge of the stock ledger of the corporation shall prepare, at least 10 days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, during ordinary business hours, for a period of at least 10 days prior to the meeting, at a place within the city where the meeting is to be held. The list shall also be produced and kept at

the time and place of the meeting during the whole time of the meeting, and may be inspected by any stockholder who is present.

1.6. Quorum. Except as otherwise provided by law, the Certificate of Incorporation or these By-laws, the holders of shares representing a majority of the votes entitled to be cast on matters other than the election of the Class A Director, present in person or represented by proxy, shall constitute a quorum for the transaction of business; provided, however, that a quorum shall only be deemed to be present for purposes of the election of the Class A Director if the holders of shares representing a majority of the votes entitled to be cast by the holders of the Class A Common Stock are present or represented by proxy.

1.7. Adjournments. Any meeting of stockholders may be adjourned to any other time and to any other place at which a meeting of stockholders may be held under these By-laws by the stockholders present or represented at the meeting and entitled to vote, although less than a quorum, or, if no stockholder is present, by any officer entitled to preside at or to act as Secretary of such meeting. It shall not be necessary to notify any stockholder of any adjournment of less than 30 days if the time and place of the adjourned meeting are announced at the meeting at which adjournment is taken, unless after the adjournment a new record date is fixed for the adjourned meeting. At the adjourned meeting, the corporation may transact any business which might have been transacted at the original meeting.

1.8. Voting and Proxies. Each stockholder shall have one vote for each share of stock entitled to vote held of record by such stockholder and a proportionate vote for each fractional share so held, unless otherwise provided in the Certificate of Incorporation. Each stockholder of record entitled to vote at a meeting of stockholders, or to express consent or dissent to corporate action in writing without a meeting, may vote or express such consent or dissent in person or may authorize another person or persons to vote or act for him by written proxy executed by the stockholder or his authorized agent and delivered to the Secretary of the corporation. No such proxy shall be voted or acted upon after three years from the date of its execution, unless the proxy expressly provides for a longer period.

1.9. Action at Meeting. When a quorum is present at any meeting, the holders of shares of stock representing a majority of the votes cast on a matter (or if there are two or more classes of stock entitled to vote as separate classes, then in the case of each such class, the holders of shares of stock of that class representing a majority of the votes cast on a matter) shall decide any matter to be voted upon by the stockholders at such meeting, except when a different vote is required by express provision of law, the Certificate of Incorporation or these By-Laws. Except as otherwise provided by these By-laws, when a quorum is present at any meeting, any election by stockholders shall be determined by a plurality of the votes cast on the election.

1.10. Notice of Business at Annual Meetings.

(a) At any annual meeting of the stockholders, only such business shall be conducted as shall have been properly brought before the meeting. To be properly brought before an annual meeting, business must be (1) specified in the notice of meeting (or any supplement thereto) given by or at the direction of the Board of Directors, (2) otherwise properly brought before the meeting by or at the direction of the Board of Directors, or (3) properly

brought before the meeting by a stockholder. For business to be properly brought before an annual meeting by a stockholder, (i) if such business relates to the nomination of a person for election as a director of the corporation, the procedures in Section 1.12 must be complied with and (ii) if such business relates to any other matter, the business must constitute a proper matter under Delaware law for stockholder action and the stockholder must (x) have given timely notice thereof in writing to the Secretary in accordance with the procedures in Section 1.10(b), (y) be a stockholder of record on the date of the giving of such notice and on the record date for the determination of stockholders entitled to vote at such annual meeting and (z) be entitled to vote at such annual meeting.

(b) To be timely, a stockholder's notice must be received in writing by the Secretary at the principal executive offices of the corporation not less than 90 days nor more than 120 days prior to the first anniversary of the preceding year's annual meeting; provided, however, that in the event that the date of the annual meeting is advanced by more than 20 days, or delayed by more than 60 days, from the first anniversary of the preceding year's annual meeting, a stockholder's notice must be so received not earlier than the 120th day prior to such annual meeting and not later than the close of business on the later of (A) the 90th day prior to such annual meeting and (B) the tenth day following the day on which notice of the date of such annual meeting was mailed or public disclosure of the date of such annual meeting was made, whichever first occurs. In no event shall the adjournment or postponement of an annual meeting (or the public announcement thereof) commence a new time period (or extend any time period) for the giving of a stockholder's notice.

The stockholder's notice to the Secretary shall set forth: (A) as to each matter the stockholder proposes to bring before the annual meeting (1) a brief description of the business desired to be brought before the annual meeting, (2) the text of the proposal (including the exact text of any resolutions proposed for consideration and, in the event that such business includes a proposal to amend the By-laws, the exact text of the proposed amendment), and (3) the reasons for conducting such business at the annual meeting, and (B) as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the proposal is being made (1) the name and address of such stockholder, as they appear on the corporation's books, and of such beneficial owner, (2) the class and series and number of shares of stock of the corporation that are, directly or indirectly, owned, beneficially or of record, by such stockholder and such beneficial owner, (3) a description of any material interest of such stockholder or such beneficial owner and the respective affiliates and associates of, or others acting in concert with, such stockholder or such beneficial owner in such business, (4) a description of any agreement, arrangement or understanding between such stockholder and/or such beneficial owner and any other person or persons (including their names) in connection with the proposal of such business or who may participate in the solicitation of proxies in favor of such proposal, (5) a description of any agreement, arrangement or understanding (including any derivative or short positions, swaps, profit interests, options, warrants, stock appreciation or similar rights, hedging transactions, and borrowed or loaned shares) that has been entered into by, or on behalf of, such stockholder or such beneficial owner, the effect or intent of which is to mitigate loss to, manage risk or benefit of share price changes for, or increase or decrease the voting power of, such stockholder or such beneficial owner with respect to shares of stock of the corporation, (6) any other information relating to such stockholder and such beneficial owner that would be required to be disclosed in a proxy statement or other filings required to be made in connection with

solicitations of proxies for the business proposed pursuant to Section 14 of the Exchange Act and the rules and regulations promulgated thereunder, (7) a representation that such stockholder intends to appear in person or by proxy at the annual meeting to bring such business before the meeting and (8) a representation whether such stockholder and/or such beneficial owner intends or is part of a group which intends (x) to deliver a proxy statement and/or form of proxy to holders of at least the percentage of the corporation's outstanding capital stock required to approve or adopt the proposal (and such representation shall be included in any such proxy statement and form of proxy) and/or (y) otherwise to solicit proxies from stockholders in support of such proposal (and such representation shall be included in any such solicitation materials). Not later than 10 days after the record date for the meeting, the information required by Items (A)(3) and (B)(1)-(6) of the prior sentence shall be supplemented by the stockholder giving the notice to provide updated information as of the record date. Notwithstanding anything in these By-laws to the contrary, no business shall be conducted at any annual meeting of stockholders except in accordance with the procedures in this Section 1.10; provided that any stockholder proposal which complies with Rule 14a-8 of the proxy rules (or any successor provision) promulgated under the Exchange Act and is to be included in the corporation's proxy statement for an annual meeting of stockholders shall be deemed to comply with the notice requirements of this Section 1.10. A stockholder shall not have complied with this Section 1.10(b) if the stockholder (or beneficial owner, if any, on whose behalf the proposal is made) solicits or does not solicit, as the case may be, proxies in support of such stockholder's proposal in contravention of the representations with respect thereto required by this Section 1.10.

(c) The chairman of any annual meeting shall have the power and duty to determine whether business was properly brought before the annual meeting in accordance with the provisions of this Section 1.10 (including whether the stockholder or beneficial owner, if any, on whose behalf the proposal is made solicited (or is part of a group which solicited) or did not so solicit, as the case may be, proxies in support of such stockholder's proposal in compliance with the representation with respect thereto required by this Section 1.10), and if the chairman should determine that business was not properly brought before the annual meeting in accordance with the provisions of this Section 1.10, the chairman shall so declare to the meeting and such business shall not be brought before the annual meeting.

(d) Except as otherwise required by law, nothing in this Section 1.10 shall obligate the corporation or the Board of Directors to include in any proxy statement or other stockholder communication distributed on behalf of the corporation or the Board of Directors information with respect to any proposal submitted by a stockholder.

(e) Notwithstanding the foregoing provisions of this Section 1.10, if the stockholder (or a qualified representative of the stockholder) does not appear at the annual meeting to present business, such business shall not be considered, notwithstanding that proxies in respect of such business may have been received by the corporation.

(f) For purposes of this Section 1.10, the terms "qualified representative of the stockholder" and "public disclosure" shall have the same meaning as in Section 1.12.

1.11. Action without Meeting. Stockholders of the corporation may not take any action by written consent in lieu of a meeting.

1.12. Nomination of Directors.

(a) Except for (1) any directors entitled to be elected by the holders of preferred stock, (2) any directors elected in accordance with Section 2.8 hereof by the Board of Directors to fill a vacancy or newly-created directorship or (3) as otherwise required by applicable law or stock exchange regulation, at any meeting of stockholders, only persons who are nominated in accordance with the procedures in this Section 1.12 shall be eligible for election as directors. Nomination for election to the Board of Directors at a meeting of stockholders may be made (i) by or at the direction of the Board of Directors or (ii) by any stockholder of the corporation who (x) timely complies with the notice procedures in Section 1.12(b), (y) is a stockholder of record on the date of the giving of such notice and on the record date for the determination of stockholders entitled to vote at such meeting and (z) is entitled to vote at such meeting.

(b) To be timely, a stockholder's notice must be received in writing by the Secretary at the principal executive offices of the corporation as follows: (i) in the case of an election of directors at an annual meeting of stockholders, not less than 90 days nor more than 120 days prior to the first anniversary of the preceding year's annual meeting; provided, however, that in the event that the date of the annual meeting is advanced by more than 20 days, or delayed by more than 60 days, from the first anniversary of the preceding year's annual meeting, a stockholder's notice must be so received not earlier than the 120th day prior to such annual meeting and not later than the close of business on the later of (A) the 90th day prior to such annual meeting and (B) the tenth day following the day on which notice of the date of such annual meeting was mailed or public disclosure of the date of such annual meeting was made, whichever first occurs; or (ii) in the case of an election of directors at a special meeting of stockholders, provided that the Board of Directors, the Chairman of the Board or the Chief Executive Officer has determined, in accordance with Section 1.3, that directors shall be elected at such special meeting and provided further that the nomination made by the stockholder is for one of the director positions that the Board of Directors, the Chairman of the Board or the Chief Executive Officer, as the case may be, has determined will be filled at such special meeting, not earlier than the 120th day prior to such special meeting and not later than the close of business on the later of (x) the 90th day prior to such special meeting and (y) the tenth day following the day on which notice of the date of such special meeting was mailed or public disclosure of the date of such special meeting was made, whichever first occurs. In no event shall the adjournment or postponement of a meeting (or the public announcement thereof) commence a new time period (or extend any time period) for the giving of a stockholder's notice.

The stockholder's notice to the Secretary shall set forth: (A) as to each proposed nominee (1) such person's name, age, business address and, if known, residence address, (2) such person's principal occupation or employment, (3) the class and series and number of shares of stock of the corporation that are, directly or indirectly, owned, beneficially or of record, by such person, (4) a description of all direct and indirect compensation and other material monetary agreements, arrangements and understandings during the past three years, and any other material relationships, between or among (x) the stockholder, the beneficial owner, if any, on whose behalf the nomination is being made and the respective affiliates and associates of, or others acting in concert with, such stockholder and such beneficial owner, on the one hand, and (y) each

proposed nominee, and his or her respective affiliates and associates, or others acting in concert with such nominee(s), on the other hand, including all information that would be required to be disclosed pursuant to Item 404 of Regulation S-K if the stockholder making the nomination and any beneficial owner on whose behalf the nomination is made or any affiliate or associate thereof or person acting in concert therewith were the “registrant” for purposes of such Item and the proposed nominee were a director or executive officer of such registrant, and (5) any other information concerning such person that must be disclosed as to nominees in proxy solicitations pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended (the “Exchange Act”); and (B) as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the nomination is being made (1) the name and address of such stockholder, as they appear on the corporation’s books, and of such beneficial owner, (2) the class and series and number of shares of stock of the corporation that are, directly or indirectly, owned, beneficially or of record, by such stockholder and such beneficial owner, (3) a description of any agreement, arrangement or understanding between such stockholder and/or such beneficial owner and each proposed nominee and any other person or persons (including their names) pursuant to which the nomination(s) are being made or who may participate in the solicitation of proxies in favor of electing such nominee(s), (4) a description of any agreement, arrangement or understanding (including any derivative or short positions, swaps, profit interests, options, warrants, stock appreciation or similar rights, hedging transactions, and borrowed or loaned shares) that has been entered into by, or on behalf of, such stockholder or such beneficial owner, the effect or intent of which is to mitigate loss to, manage risk or benefit of share price changes for, or increase or decrease the voting power of, such stockholder or such beneficial owner with respect to shares of stock of the corporation, (5) any other information relating to such stockholder and such beneficial owner that would be required to be disclosed in a proxy statement or other filings required to be made in connection with solicitations of proxies for the election of directors in a contested election pursuant to Section 14 of the Exchange Act and the rules and regulations promulgated thereunder, (6) a representation that such stockholder intends to appear in person or by proxy at the meeting to nominate the person(s) named in its notice and (7) a representation whether such stockholder and/or such beneficial owner intends or is part of a group which intends (x) to deliver a proxy statement and/or form of proxy to holders of at least the percentage of the corporation’s outstanding capital stock reasonably believed by such stockholder or such beneficial owner to be sufficient to elect the nominee (and such representation shall be included in any such proxy statement and form of proxy) and/or (y) otherwise to solicit proxies from stockholders in support of such nomination (and such representation shall be included in any such solicitation materials). Not later than 10 days after the record date for the meeting, the information required by Items (A)(1)-(5) and (B)(1)-(5) of the prior sentence shall be supplemented by the stockholder giving the notice to provide updated information as of the record date. In addition, to be effective, the stockholder’s notice must be accompanied by the written consent of the proposed nominee to serve as a director if elected. The corporation may require any proposed nominee to furnish such other information as may reasonably be required to determine the eligibility of such proposed nominee to serve as a director of the corporation or whether such nominee would be independent under applicable Securities and Exchange Commission and stock exchange rules and the corporation’s publicly disclosed corporate governance guidelines. A stockholder shall not have complied with this Section 1.12(b) if the stockholder (or beneficial owner, if any, on whose behalf the nomination is made) solicits or does not solicit, as the case may be, proxies in support of such stockholder’s

nominee in contravention of the representations with respect thereto required by this Section 1.12.

(c) The chairman of any meeting shall have the power and duty to determine whether a nomination was made in accordance with the provisions of this Section 1.12 (including whether the stockholder or beneficial owner, if any, on whose behalf the nomination is made solicited (or is part of a group which solicited) or did not so solicit, as the case may be, proxies in support of such stockholder's nominee in compliance with the representations with respect thereto required by this Section 1.12), and if the chairman should determine that a nomination was not made in accordance with the provisions of this Section 1.12, the chairman shall so declare to the meeting and such nomination shall not be brought before the meeting.

(d) Except as otherwise required by law, nothing in this Section 1.12 shall obligate the corporation or the Board of Directors to include in any proxy statement or other stockholder communication distributed on behalf of the corporation or the Board of Directors information with respect to any nominee for director submitted by a stockholder.

(e) Notwithstanding the foregoing provisions of this Section 1.12, if the stockholder (or a qualified representative of the stockholder) does not appear at the meeting to present a nomination, such nomination shall not be brought before the meeting, notwithstanding that proxies in respect of such nominee may have been received by the corporation. For purposes of this Section 1.12, to be considered a "qualified representative of the stockholder", a person must be authorized by a written instrument executed by such stockholder or an electronic transmission delivered by such stockholder to act for such stockholder as proxy at the meeting of stockholders and such person must produce such written instrument or electronic transmission, or a reliable reproduction of the written instrument or electronic transmission, at the meeting of stockholders.

(f) For purposes of this Section 1.12, "public disclosure" shall include disclosure in a press release reported by the Dow Jones News Service, Associated Press or comparable national news service or in a document publicly filed by the corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the Exchange Act.

1.13. Conduct of Meetings.

(a) Meetings of stockholders shall be presided over by the Chairman of the Board, if any, or in the Chairman's absence by the Vice Chairman of the Board, if any, or in the Vice Chairman's absence by the Chief Executive Officer, or in the Chief Executive Officer's absence, by the President, or in the President's absence by a Vice President, or in the absence of all of the foregoing persons by a chairman designated by the Board of Directors. The Secretary shall act as secretary of the meeting, but in the Secretary's absence the chairman of the meeting may appoint any person to act as secretary of the meeting.

(b) The Board of Directors may adopt by resolution such rules, regulations and procedures for the conduct of any meeting of stockholders of the corporation as it shall deem appropriate including, without limitation, such guidelines and procedures as it may deem appropriate regarding the participation by means of remote communication of stockholders and

proxyholders not physically present at a meeting. Except to the extent inconsistent with such rules, regulations and procedures as adopted by the Board of Directors, the chairman of any meeting of stockholders shall have the right and authority to prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of such chairman, are appropriate for the proper conduct of the meeting. Such rules, regulations or procedures, whether adopted by the Board of Directors or prescribed by the chairman of the meeting, may include, without limitation, the following: (i) the establishment of an agenda or order of business for the meeting; (ii) rules and procedures for maintaining order at the meeting and the safety of those present; (iii) limitations on attendance at or participation in the meeting to stockholders of record of the corporation, their duly authorized and constituted proxies or such other persons as shall be determined; (iv) restrictions on entry to the meeting after the time fixed for the commencement thereof; and (v) limitations on the time allotted to questions or comments by participants. Unless and to the extent determined by the Board of Directors or the chairman of the meeting, meetings of stockholders shall not be required to be held in accordance with the rules of parliamentary procedure.

(c) The chairman of the meeting shall announce at the meeting when the polls for each matter to be voted upon at the meeting will be opened and closed. After the polls close, no ballots, proxies or votes or any revocations or changes thereto may be accepted.

(d) In advance of any meeting of stockholders, the Board of Directors, the Chairman of the Board, the Chief Executive Officer or the President shall appoint one or more inspectors of election to act at the meeting and make a written report thereof. One or more other persons may be designated as alternate inspectors to replace any inspector who fails to act. If no inspector or alternate is present, ready and willing to act at a meeting of stockholders, the chairman of the meeting shall appoint one or more inspectors to act at the meeting. Unless otherwise required by law, inspectors may be officers, employees or agents of the corporation. Each inspector, before entering upon the discharge of such inspector's duties, shall take and sign an oath faithfully to execute the duties of inspector with strict impartiality and according to the best of such inspector's ability. The inspector shall have the duties prescribed by law and shall take charge of the polls and, when the vote is completed, shall make a certificate of the result of the vote taken and of such other facts as may be required by law. Every vote taken by ballots shall be counted by a duly appointed inspector or duly appointed inspectors.

ARTICLE 2 - Directors

2.1. General Powers. The business and affairs of the corporation shall be managed by or under the direction of a Board of Directors, who may exercise all of the powers of the corporation except as otherwise provided by law or the Certificate of Incorporation. In the event of a vacancy in the Board of Directors, the remaining directors, except as otherwise provided by law, may exercise the powers of the full Board until the vacancy is filled.

2.2. Number of Directors. The number of directors which shall constitute the whole Board of Directors shall be determined by resolution of a majority of the Board of Directors, but in no event shall be less than three. The number of directors may be decreased at any time and from time to time by a majority of the directors then in office, but only to eliminate vacancies

existing by reason of the death, resignation, removal or expiration of the term of one or more directors. The directors shall be elected at the annual meeting of the stockholders by such stockholders as have the right to vote on such election. Directors need not be stockholders of the corporation.

2.3. Classes of Directors. The Board of Directors shall be and is divided into three classes: Class I, Class II and Class III. No one class shall have more than one director more than any other class. If a fraction is contained in the quotient arrived at by dividing the authorized number of directors by three, then, if such fraction is one-third, the extra director shall be a member of Class I and, if such fraction is two-thirds, one of the extra directors shall be a member of Class I and the other extra director shall be a member of Class II unless otherwise provided for from time to time by resolution adopted by a majority of the Board of Directors. The Class A Director shall be in Class II.

2.4. Election of Directors. The holders of Class A Common Stock, voting separately as a class, shall be entitled to elect one director (the "Class A Director"). All other directors shall be elected by the holders of the Class A Common Stock and Class B Common Stock, if any, voting together as a single class.

2.5. Terms of Office. Each director shall serve for a term ending on the date of the third annual meeting following the annual meeting at which such director was elected; provided, however, that each initial director in Class I shall serve for a term ending on the date of the annual meeting next following the end of the Corporation's fiscal year ending April 30, 1998; each initial director in Class II shall serve for a term ending on the date of the annual meeting next following the end of the Corporation's fiscal year ending April 30, 1999; and each initial director in Class III shall serve for a term ending on the date of the annual meeting next following the end of the Corporation's fiscal year ending April 30, 2000.

2.6. Allocation of Directors Among Classes in the Event of Increases or Decreases in the Number of Directors. In the event of any increase or decrease in the authorized number of directors, (i) each director then serving as such shall nevertheless continue as director of the class of which he is a member until the expiration of his current term or his prior death, retirement or resignation and (ii) the newly created or eliminated directorships resulting from such increase or decrease shall be apportioned by the Board of Directors among the three classes of directors so as to ensure that no one class has more than one director more than any other class. To the extent possible, consistent with the foregoing rule, any newly created directorships shall be added to those classes whose terms of office are to expire at the latest dates following such allocation, and any newly eliminated directorships shall be subtracted from those classes whose terms of office are to expire at the earliest dates following such allocation, unless otherwise provided for from time to time by resolution adopted by a majority of the directors then in office, although less than a quorum.

2.7. Tenure. Notwithstanding any provisions to the contrary contained herein, each director shall hold office until his successor is elected and qualified, or until his earlier death, resignation or removal.

2.8. Vacancies. Any vacancy in the Board of Directors, however occurring, including a vacancy resulting from an enlargement of the Board, may be filled only by a vote of a majority of the directors then in office, although less than a quorum, or by a sole remaining director. The term of any director elected to fill a vacancy between annual meetings will last until the next annual meeting and until such director's successor has been elected and qualified, or until his earlier death, resignation or removal.

2.9. Quorum. A majority of the total number of the whole Board of Directors shall constitute a quorum at all meetings of the Board of Directors. In the event one or more of the directors shall be disqualified to vote at any meeting, then the required quorum shall be reduced by one for each such director so disqualified; provided, however, that in no case shall less than one-third ($\frac{1}{3}$) of the number so fixed constitute a quorum. In the absence of a quorum at any such meeting, a majority of the directors present may adjourn the meeting from time to time without further notice other than announcement at the meeting, until a quorum shall be present.

2.10. Action at Meeting. At any meeting of the Board of Directors at which a quorum is present, the vote of a majority of those present shall be sufficient to take any action, unless a different vote is specified by law or the Certificate of Incorporation or these By-Laws.

2.11. Removal. Any one or more or all of the directors may be removed, with or without cause, by the holders of shares representing at least seventy-five percent (75%) of the votes which all the stockholders would be entitled to cast at any election of directors or class of directors (other than an election of the Class A Director); provided, however, that the Class A Director may be removed only by the holders of at least seventy-five percent (75%) of the outstanding shares of Class A Common Stock.

2.12. Resignation. Any director may resign by delivering his written resignation to the corporation at its principal office or to the Chief Executive Officer or Secretary. Such resignation shall be effective upon receipt unless it is specified to be effective at some other time or upon the happening of some other event.

2.13. Regular Meetings. Regular meetings of the Board of Directors may be held without notice at such time and place, either within or without the State of Delaware, as shall be determined from time to time by the Board of Directors; provided that any director who is absent when such a determination is made shall be given notice of the determination; provided further that the Board of Directors shall meet at least once during each of the corporation's fiscal quarters. A regular meeting of the Board of Directors may be held without notice immediately after and at the same place as the annual meeting of stockholders.

2.14. Special Meetings. Special meetings of the Board of Directors may be held at any time and place, within or without the State of Delaware, designated in a call by the Chairman of the Board, Chief Executive Officer, two or more directors, or by one director in the event that there is only a single director in office.

2.15. Notice of Special Meetings. Notice of any special meeting of directors shall be given to each director by the Secretary or by the officer or one of the directors calling the meeting. Notice shall be duly given to each director (i) by giving notice to such director in

person or by telephone at least 48 hours in advance of the meeting, (ii) by sending a telegram or telex, or delivering written notice by hand, to his last known business or home address at least 48 hours in advance of the meeting, or (iii) by mailing written notice to his last known business or home address at least 72 hours in advance of the meeting. A notice or waiver of notice of a meeting of the Board of Directors need not specify the purposes of the meeting.

2.16. Meetings by Telephone Conference Calls. Directors or any members of any committee designated by the directors may participate in a meeting of the Board of Directors or such committee by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other, and participation by such means shall constitute presence in person at such meeting.

2.17. Action by Consent. Any action required or permitted to be taken at any meeting of the Board of Directors or of any committee of the Board of Directors may be taken without a meeting, if all members of the Board or committee, as the case may be, consent to the action in writing, and the written consents are filed with the minutes of proceedings of the Board or committee.

2.18. Committees. The Board of Directors may designate one or more committees, each committee to consist of one or more of the directors of the corporation. The Board may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member or members of the committee present at any meeting and not disqualified from voting, whether or not he or they constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of any such absent or disqualified member. Any such committee, to the extent provided in the resolution of the Board of Directors and subject to the provisions of the General Corporation Law of the State of Delaware, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the corporation and may authorize the seal of the corporation to be affixed to all papers which may require it. Each such committee shall keep minutes and make such reports as the Board of Directors may from time to time request. Except as the Board of Directors may otherwise determine, any committee may make rules for the conduct of its business, but unless otherwise provided by the directors or in such rules, its business shall be conducted as nearly as possible in the same manner as is provided in these By-laws for the Board of Directors.

2.19. Compensation of Directors. Directors may be paid such compensation for their services and such reimbursement for expenses of attendance at meetings as the Board of Directors may from time to time determine. No such payment shall preclude any director from serving the corporation or any of its parent or subsidiary corporations in any other capacity and receiving compensation for such service.

ARTICLE 3 - Officers

3.1. Enumeration. The officers of the corporation shall consist of a Chief Executive Officer, a Secretary, a Treasurer and such other officers with such other titles as the Board of Directors shall determine, including a Chairman of the Board, a Vice-Chairman of the Board,

and one or more Vice Presidents, Assistant Treasurers, and Assistant Secretaries. The Board of Directors may appoint such other officers as it may deem appropriate.

3.2. Election. The Chief Executive Officer, Treasurer and Secretary shall be elected annually by the Board of Directors at its first meeting following the annual meeting of stockholders. Other officers may be appointed by the Board of Directors at such meeting or at any other meeting.

3.3. Qualification. No officer need be a stockholder. Any two or more offices may be held by the same person.

3.4. Tenure. Except as otherwise provided by law, by the Certificate of Incorporation or by these By-laws, each officer shall hold office until his successor is elected and qualified, unless a different term is specified in the vote choosing or appointing him, or until his earlier death, resignation or removal.

3.5. Resignation and Removal. Any officer may resign by delivering his written resignation to the corporation at its principal office or to the Chief Executive Officer or Secretary. Such resignation shall be effective upon receipt unless it is specified to be effective at some other time or upon the happening of some other event.

Any officer may be removed at any time, with or without cause, by vote of a majority of the entire number of directors then in office.

Except as the Board of Directors may otherwise determine, no officer who resigns or is removed shall have any right to any compensation as an officer for any period following his resignation or removal, or any right to damages on account of such removal, whether his compensation be by the month or by the year or otherwise, unless such compensation is expressly provided in a duly authorized written agreement with the corporation.

3.6. Vacancies. The Board of Directors may fill any vacancy occurring in any office for any reason and may, in its discretion, leave unfilled for such period as it may determine any offices other than those of Chief Executive Officer, Treasurer and Secretary. Each such successor shall hold office for the unexpired term of his predecessor and until his successor is elected and qualified, or until his earlier death, resignation or removal.

3.7. Chairman of the Board and Vice-Chairman of the Board. The Board of Directors may appoint a Chairman of the Board and may designate the Chairman of the Board as Chief Executive Officer. If the Board of Directors appoints a Chairman of the Board, he shall perform such duties and possess such powers as are assigned to him by the Board of Directors. If the Board of Directors appoints a Vice-Chairman of the Board, he shall, in the absence or disability of the Chairman of the Board, perform the duties and exercise the powers of the Chairman of the Board and shall perform such other duties and possess such other powers as may from time to time be vested in him by the Board of Directors.

3.8. Chief Executive Officer. The Chief Executive Officer shall, subject to the direction of the Board of Directors, have general charge and supervision of the business of the corporation. Unless otherwise provided by the Board of Directors, he shall preside at all

meetings of the stockholders and, if he is a director, at all meetings of the Board of Directors. The Chief Executive Officer shall perform such other duties and shall have such other powers as the Board of Directors may from time to time prescribe.

3.9. Vice Presidents. Any Vice President shall perform such duties and possess such powers as the Board of Directors or the Chief Executive Officer may from time to time prescribe. In the event of the absence, inability or refusal to act of the Chief Executive Officer, and, if there shall be one, the President, the Vice President (or if there shall be more than one, the Vice Presidents in the order determined by the Board of Directors) shall perform the duties of the Chief Executive Officer and when so performing shall have all the powers of and be subject to all the restrictions upon the Chief Executive Officer. The Board of Directors may assign to any Vice President the title of Executive Vice President, Senior Vice President or any other title selected by the Board of Directors.

3.10. Secretary and Assistant Secretaries. The Secretary shall perform such duties and shall have such powers as the Board of Directors or the Chief Executive Officer may from time to time prescribe. In addition, the Secretary shall perform such duties and have such powers as are incident to the office of the secretary, including without limitation the duty and power to give notices of all meetings of stockholders and special meetings of the Board of Directors, to attend all meetings of stockholders and the Board of Directors and keep a record of the proceedings, to maintain a stock ledger and prepare lists of stockholders and their addresses as required, to be custodian of corporate records and the corporate seal and to affix and attest to the same on documents.

Any Assistant Secretary shall perform such duties and possess such powers as the Board of Directors, the Chief Executive Officer or the Secretary may from time to time prescribe. In the event of the absence, inability or refusal to act of the Secretary, the Assistant Secretary, (or if there shall be more than one, the Assistant Secretaries in the order determined by the Board of Directors) shall perform the duties and exercise the powers of the Secretary.

In the absence of the Secretary or any Assistant Secretary at any meeting of stockholders or directors, the person presiding at the meeting shall designate a temporary secretary to keep a record of the meeting.

3.11. Treasurer and Assistant Treasurers. The Treasurer shall perform such duties and shall have such powers as may from time to time be assigned to him by the Board of Directors or the Chief Executive Officer. In addition, the Treasurer shall perform such duties and have such powers as are incident to the office of treasurer, including without limitation the duty and power to keep and be responsible for all funds and securities of the corporation, to deposit funds of the corporation in depositories selected in accordance with these By-laws, to disburse such funds as ordered by the Board of Directors, to make proper accounts of such funds, and to render as required by the Board of Directors statements of all such transactions and of the financial condition of the corporation.

The Assistant Treasurers shall perform such duties and possess such powers as the Board of Directors, the Chief Executive Officer or the Treasurer may from time to time prescribe. In the event of the absence, inability or refusal to act of the Treasurer, the Assistant Treasurer, (or if

there shall be more than one, the Assistant Treasurers in the order determined by the Board of Directors) shall perform the duties and exercise the powers of the Treasurer.

3.12. Salaries. Officers of the corporation shall be entitled to such salaries, compensation or reimbursement as shall be fixed or allowed from time to time by the Board of Directors.

ARTICLE 4 - Capital Stock

4.1. Issuance of Stock. Unless otherwise voted by the stockholders and subject to the provisions of the Certificate of Incorporation, the whole or any part of any unissued balance of the authorized capital stock of the corporation or the whole or any part of any unissued balance of the authorized capital stock of the corporation held in its treasury may be issued, sold, transferred or otherwise disposed of by vote of the Board of Directors in such manner, for such consideration and on such terms as the Board of Directors may determine.

4.2. Certificates of Stock. Every holder of stock of the corporation shall be entitled to have a certificate, in such form as may be prescribed by law and by the Board of Directors, certifying the number and class of shares owned by him in the corporation. Each such certificate shall be signed by, or in the name of the corporation by, the Chairman or Vice-Chairman, if any, of the Board of Directors, or the President or a Vice President, and the Treasurer or an Assistant Treasurer, or the Secretary or an Assistant Secretary of the corporation. Any or all of the signatures on the certificate may be a facsimile.

Each certificate for shares of stock which are subject to any restriction on transfer pursuant to the Certificate of Incorporation, the By-laws, applicable securities laws or any agreement among any number of shareholders or among such holders and the corporation shall have conspicuously noted on the face or back of the certificate either the full text of the restriction or a statement of the existence of such restriction.

If the corporation shall be authorized to issue more than one class of stock or more than one series of any class, the powers, designations, preferences and relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights shall be set forth in full or summarized on the face or back of each certificate representing shares of such class or series of stock, provided that in lieu of the foregoing requirements there may be set forth on the face or back of each certificate representing shares of such class or series of stock a statement that the corporation will furnish without charge to each stockholder who so requests a copy of the full text of the powers, designations, preferences and relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights.

4.3. Transfers. Except as otherwise established by rules and regulations adopted by the Board of Directors, and subject to applicable law, shares of stock may be transferred on the books of the corporation by the surrender to the corporation or its transfer agent of the certificate representing such shares properly endorsed or accompanied by a written assignment or power of attorney properly executed, and with such proof of authority or the authenticity of signature as

the corporation or its transfer agent may reasonably require. Except as may be otherwise required by law, by the Certificate of Incorporation or by these By-laws, the corporation shall be entitled to treat the record holder of stock as shown on its books as the owner of such stock for all purposes, including the payment of dividends and the right to vote with respect to such stock, regardless of any transfer, pledge or other disposition of such stock until the shares have been transferred on the books of the corporation in accordance with the requirements of these By-laws.

4.4. Lost, Stolen or Destroyed Certificates. The corporation may issue a new certificate of stock in place of any previously issued certificate alleged to have been lost, stolen, or destroyed, upon such terms and conditions as the Board of Directors may prescribe, including the presentation of reasonable evidence of such loss, theft or destruction and the giving of such indemnity as the Board of Directors may require for the protection of the corporation or any transfer agent or registrar.

4.5. Record Date. The Board of Directors may fix in advance a date as a record date for the determination of the stockholders entitled to notice of or to vote at any meeting of stockholders or to express consent (or dissent) to corporate action in writing without a meeting, or entitled to receive payment of any dividend or other distribution or allotment of any rights in respect of any change, conversion or exchange of stock, or for the purpose of any other lawful action. Such record date shall not be more than 60 nor less than 10 days before the date of such meeting, nor more than 10 days after the date of adoption of a record date for a written consent without a meeting, nor more than 60 days prior to any other action to which such record date relates.

If no record date is fixed, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day before the day on which notice is given, or, if notice is waived, at the close of business on the day before the day on which the meeting is held. The record date for determining stockholders entitled to express consent to corporate action in writing without a meeting, when no prior action by the Board of Directors is necessary, shall be the day on which the first written consent is properly delivered to the corporation. The record date for determining stockholders for any other purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating to such purpose.

A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board of Directors may fix a new record date for the adjourned meeting.

ARTICLE 5 - General Provisions

5.1. Fiscal Year. Except as from time to time otherwise designated by the Board of Directors, the fiscal year of the corporation shall begin on the first day of May in each year and end on the last day of April in each year.

5.2. Corporate Seal. The corporate seal shall be in such form as shall be approved by the Board of Directors.

5.3. Waiver of Notice. Whenever any notice whatsoever is required to be given by law, by the Certificate of Incorporation or by these By-laws, a waiver of such notice either in writing signed by the person entitled to such notice or such person's duly authorized attorney, or by telegraph, cable or any other available method, whether before, at or after the time stated in such waiver, or the appearance of such person or persons at such meeting in person or by proxy, shall be deemed equivalent to such notice.

5.4. Voting of Securities. Except as the directors may otherwise designate, the Chief Executive Officer or Treasurer may waive notice of, and act as, or appoint any person or persons to act as, proxy or attorney-in-fact for this corporation (with or without power of substitution) at, any meeting of stockholders or shareholders of any other corporation or organization, the securities of which may be held by this corporation.

5.5. Evidence of Authority. A certificate by the Secretary, or an Assistant Secretary, or a temporary Secretary, as to any action taken by the stockholders, directors, a committee or any officer or representative of the corporation shall as to all persons who rely on the certificate in good faith be conclusive evidence of such action.

5.6. Certificate of Incorporation. All references in these By-laws to the Certificate of Incorporation shall be deemed to refer to the Certificate of Incorporation of the corporation, as amended and in effect from time to time.

5.7. Transactions with Interested Parties. Except as otherwise specified by the Board of Directors, no contract or transaction between the corporation and one or more of the directors or officers, or between the corporation and any other corporation, partnership, association, or other organization in which one or more of the directors or officers are directors or officers, or have a financial interest, shall be void or voidable solely for this reason, or solely because the director or officer is present at or participates in the meeting of the Board of Directors or a committee of the Board of Directors which authorizes the contract or transaction or solely because his or their votes are counted for such purpose, if:

(1) The material facts as to his relationship or interest and as to the contract or transaction are disclosed or are known to the Board of Directors or the committee, and the Board or committee in good faith authorizes the contract or transaction by the affirmative votes of a majority of the disinterested directors, even though the disinterested directors be less than a quorum;

(2) The material facts as to his relationship or interest and as to the contract or transaction are disclosed or are known to the stockholders entitled to vote thereon, and the contract or transaction is specifically approved in good faith by vote of the stockholders; or

(3) The contract or transaction is fair as to the corporation as of the time it is authorized, approved or ratified/ by the Board of Directors, a committee of the Board of Directors, or the stockholders.

Common or interested directors may be counted in determining the presence of a quorum at a meeting of the Board of Directors or of a committee which authorizes the contract or transaction.

5.8. Severability. Any determination that any provision of these By-laws is for any reason inapplicable, illegal or ineffective shall not affect or invalidate any other provision of these By-laws.

5.9. Pronouns. All pronouns used in these By-laws shall be deemed to refer to the masculine, feminine or neuter, singular or plural, as the identity of the person or persons may require.

ARTICLE 6 - Amendments

6.1. By the Board of Directors. These By-laws may be altered, amended or repealed or new by-laws may be adopted by the affirmative vote of a majority of the directors present at any regular or special meeting of the Board of Directors at which a quorum is present.

6.2. By the Stockholders. Subject to the following paragraph, these By-laws may be altered, amended or repealed or new by-laws may be adopted by the affirmative vote of the holders of shares representing a majority of the votes which all of the stockholders would be entitled to cast at any election of directors or class of directors (other than an election of the Class A Director) at any regular meeting of stockholders, or at any special meeting of stockholders, provided notice of such alteration, amendment, repeal or adoption of new by-laws shall have been stated in the notice of such special meeting.

Notwithstanding any other provision of law, the Certificate of Incorporation or these By-Laws (including the preceding paragraph), and notwithstanding the fact that a lesser percentage may be specified by law, the affirmative vote of the holders of shares representing at least 75% of the votes which all the stockholders would be entitled to cast at any election of directors or class of directors (other than an election of the Class A Director) shall be required to amend or repeal, or to adopt any provision inconsistent with, the provisions of Sections 1.10 or 1.11, the provisions of Article II, or the provisions of this Section 6.2.

AMENDMENT NO. 1
TO
THIRD AMENDED AND RESTATED BY-LAWS
OF
CASELLA WASTE SYSTEMS, INC.

Article V of the Third Amended and Restated By-Laws of Casella Waste Systems, Inc. (the “By-Laws”) be and hereby is amended by inserting the following at the end thereof:

“5.10 Exclusive Forum.

(a) Unless the corporation consents in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware (or, if the Court of Chancery of the State of Delaware does not have jurisdiction, the federal district court for the District of Delaware) shall, to the fullest extent permitted by law, be the sole and exclusive forum for: (i) any derivative action or proceeding brought on behalf of the corporation, (ii) any action asserting a claim of breach of a fiduciary duty owed by any director, officer, other employee or stockholder of the corporation to the corporation or the corporation’s stockholders, (iii) any action asserting a claim arising pursuant to any provision of the General Corporation Law of the State of Delaware or as to which the General Corporation Law of the State of Delaware confers jurisdiction on the Court of Chancery of the State of Delaware, or (iv) any action asserting a claim arising pursuant to any provision of the Certificate of Incorporation or these By-Laws (in each case, as they may be amended from time to time) or governed by the internal affairs doctrine. This Section 5.10(a) does not apply to claims arising under the Securities Act of 1933 or the Securities Exchange Act of 1934 or any other claim for which the federal courts have exclusive jurisdiction.

(b) Unless the corporation consents in writing to the selection of an alternative forum, the federal district courts of the United States of America shall, to the fullest extent permitted by law, be the sole and exclusive forum for the resolution of any claims arising under the Securities Act of 1933.

(c) Any person or entity purchasing or otherwise acquiring or holding any interest in shares of capital stock of the corporation shall be deemed to have notice of and consented to the provisions of this Section 5.10.”

In all other respects, the By-Laws shall remain in full force and effect.

Adopted by resolution of the Board of Directors on February 17, 2021.

DESCRIPTION OF SECURITIES REGISTERED UNDER SECTION 12 OF THE EXCHANGE ACT

The following description of the Class A Common Stock, \$0.01 par value per share (the “Class A Common Stock”), of Casella Waste Systems, Inc. (“Company,” “us,” “our” or “we”), which is the only security of the Company registered under Section 12 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), summarizes certain information regarding the Class A Common Stock in our Second Amended and Restated Certificate of Incorporation, as amended (the “Certificate of Incorporation”), our Third Amended and Restated By-Laws (the “By-Laws”) and applicable provisions of the Delaware General Corporation Law (the “DGCL”), and is qualified by reference to our Certificate of Incorporation and By-Laws, which are incorporated by reference as Exhibit 3.1 and Exhibit 3.2, respectively, to the Annual Report on Form 10-K of which this Exhibit 4.3 is a part.

Authorized Capital Stock

Our authorized capital stock consists of 100,000,000 shares of Class A Common Stock, 1,000,000 shares of Class B Common Stock, \$0.01 par value per share (the “Class B Common Stock” and, together with the Class A Common Stock, the “Common Stock”), and 944,250 shares of preferred stock, \$0.01 par value per share (the “Preferred Stock”).

Class A Common Stock

Voting Rights. On all matters submitted to a vote of our stockholders, the holders of our Class A Common Stock are entitled to one vote per share, and the holders of our Class B Common Stock are entitled to ten votes per share. The holders of all classes of our Common Stock entitled to vote will generally vote together as a single class on all matters presented to the stockholders for their vote or approval, except that the holders of Class A Common Stock, voting separately as a class, will at all times be entitled to elect one director (the “Class A Director”), and such director may be removed, with or without cause, only by the holders of our Class A Common Stock. The presence in person or by proxy of the holders of record of shares representing a majority of the votes entitled to be cast on matters other than the election of the Class A Director constitutes a quorum for the transaction of business at meetings of the stockholders. Except as may be otherwise provided by applicable law, our Certificate of Incorporation or our By-Laws, all elections shall be decided by a plurality, and all other questions shall be decided by a majority, of the votes cast by stockholders entitled to vote thereon at a duly held meeting of stockholders at which a quorum is present. Pursuant to our majority vote resignation policy included in our Corporate Governance Guidelines, any nominee who is an incumbent director and who does not receive more votes “for” his or her election than votes “withheld” from his or her election in an uncontested election of directors would be required to offer his or her resignation to our board of directors.

Dividends. The holders of our Common Stock are entitled to receive dividends if, as and when such dividends are declared by our board of directors out of assets legally available therefor, subject to any preferential rights of our Preferred Stock, if any. We may not make any dividend or distribution to any holder of any class of our Common Stock unless simultaneously with such dividend or distribution we make the same dividend or distribution with respect to each outstanding share of our Common Stock regardless of class. In the case of a dividend or other distribution payable in shares of a class of our Common Stock, including distributions pursuant to stock splits or divisions of Common Stock, only shares of our Class A Common Stock may be distributed with respect to Class A Common Stock, and only shares of our Class B Common Stock may be distributed with respect to Class B Common Stock. Whenever a dividend or distribution, including distributions pursuant to stock splits or divisions of Common Stock, is payable in shares of Class A Common Stock or Class B Common Stock, the number of shares of each class of Common Stock payable per share of such class of Common Stock shall be equal in number. In the case of dividends or other distributions consisting of our other voting securities or of voting securities of any corporation which is a wholly-owned subsidiary of ours, we shall declare and pay such dividends in two separate classes of such voting securities, identical in all respects except that:

- the voting rights of each such security issued to the holders of Class A Common Stock shall be one-tenth of the voting rights of each such security issued to holders of Class B Common Stock;
- such security issued to holders of Class B Common Stock shall convert into the security issued to the holders of Class A Common Stock upon the same terms and conditions applicable to the conversion of Class B Common Stock into Class A Common Stock and shall have the same restrictions on transfer and ownership applicable to the transfer and ownership of our Class B Common Stock; and
- with respect only to dividends or other distributions of voting securities of any corporation that is a wholly owned subsidiary of ours, the respective voting rights of each such security issued to holders of Class A Common Stock and

Class B Common Stock with respect to elections of directors shall otherwise be as comparable as is practicable to those of our Class A Common Stock and Class B Common Stock, respectively.

In the case of dividends or other distributions consisting of securities convertible into, or exchangeable for, our voting securities or of voting securities of any corporation that is a wholly owned subsidiary of ours, we are required to provide that such convertible or exchangeable securities and the underlying securities are identical in all respects, including, without limitation, the conversion or exchange rate, except that the underlying securities shall have the same differences as they would have if we issued voting securities of ours or of a wholly-owned subsidiary of ours rather than issuing securities convertible into, or exchangeable for, such securities.

Reclassification and Merger. In the event we enter into any consolidation, merger, combination or other transaction in which shares of our Common Stock are exchanged for or changed into other stock or securities, cash and/or any other property, then, and in such event, the shares of each class of our Common Stock will be exchanged for or changed into either:

- the same amount of stock, securities, cash and/or any other property, as the case may be, into which or for which each share of any other class of Common Stock is exchanged or changed; provided, however, that if shares of Common Stock are exchanged for or changed into shares of capital stock, such share so exchanged for or changed into may differ to the extent and only to the extent that our Class A Common Stock and Class B Common Stock differ as provided in our Certificate of Incorporation; or
- if holders of each class of Common Stock are to receive different distributions of stock, securities, cash and/or any other property, an amount of stock, securities, cash and/or property per share having a value, as determined by an independent investment banking firm of national reputation selected by our board of directors, equal to the value per share into which or for which each share of any other class of Common Stock is exchanged or changed.

Liquidation and Dissolution. In the event of our liquidation, dissolution or winding up, whether voluntary or involuntary, after payment or provision for payment of our debts and our other liabilities and after making provision for the holders of our Preferred Stock, if any, our remaining assets and funds, if any, will be divided among and paid ratably to the holders of our Class A Common Stock and Class B Common Stock treated as a single class.

Other Rights. The holders of our Common Stock are not entitled to preemptive rights. None of the Class A Common Stock or Class B Common Stock may be subdivided or combined in any manner unless the other class of Common Stock is subdivided or combined in the same proportion. If we make an offering of options, rights or warrants to subscribe for shares of any class or classes of capital stock (other than Class B Common Stock) to all holders of a class of Common Stock, then we are required to simultaneously make an identical offering to all holders of the other classes of Common Stock other than to any class the holders of which, voting as a separate class, agree that such offering need not be made to such class. All such options, rights or warrants offerings shall offer the respective holders of Class A Common Stock and Class B Common Stock the right to subscribe at the same rate per share.

Provisions of Our Certificate of Incorporation and By-Laws and the DGCL That May Have Anti-Takeover Effects

Board of Directors. Our Certificate of Incorporation and By-Laws provide for the division of our board of directors into three classes as nearly equal in size as possible, with no class having more than one director more than any other class, with staggered three-year terms. The Class A Director nominated by holders of our Class A Common Stock and elected to office is a class II director. Our Certificate of Incorporation and By-Laws provide that any vacancy on the board of directors, however occurring, including a vacancy resulting from an enlargement of the board, may only be filled by vote of a majority of the directors then in office, or by a sole remaining director. The term of any director elected to fill a vacancy between annual meetings will last until the next annual meeting and until such director's successor has been elected and qualified, or until his earlier death, resignation or removal.

Removal of Directors by Stockholders. Our Certificate of Incorporation and By-Laws provide that directors may be removed with or without cause by the vote of the holders of shares representing at least 75% of the votes which all of our stockholders would be entitled to cast at any election of directors, other than an election of the Class A Director. The Class A Director may be removed only by the holders of at least 75% of the outstanding shares of our Class A Common Stock.

Advance Notice Provisions. Our By-Laws provide that a stockholder must notify us in writing, within timeframes specified in the By-Laws, of any stockholder nomination of a director and of any other business that the stockholder intends to bring at a meeting of stockholders.

No Action By Written Consent. Our Certificate of Incorporation provides that our stockholders may not act by written consent and may only act at duly called meetings of stockholders.

Issuance of Preferred Stock. Our board of directors is authorized, without further action by our stockholders, to issue up to 944,250 shares of Preferred Stock in one or more series, and to fix the designations, powers, preferences and the relative, participating, optional or other special rights, and any qualifications, limitations and restrictions of the shares of each series of

Preferred Stock. The issuance of Preferred Stock could impede the completion of a merger, tender offer or other takeover attempt.

Delaware Business Combination Statute. Section 203 of the DGCL is applicable to us. Section 203 of the DGCL restricts some types of transactions and business combinations between a corporation and a 15% stockholder. A 15% stockholder is generally considered by Section 203 to be a person owning 15% or more of the corporation's outstanding voting stock. Section 203 refers to a 15% stockholder as an "interested stockholder." Section 203 restricts these transactions for a period of three years from the date the stockholder acquires 15% or more of our outstanding voting stock. With some exceptions, unless the transaction is approved by the board of directors and the holders of at least two-thirds of the outstanding voting stock of the corporation, Section 203 prohibits significant business transactions such as:

- a merger with, disposition of significant assets to or receipt of disproportionate financial benefits by the interested stockholder, and
- any other transaction that would increase the interested stockholder's proportionate ownership of any class or series of our capital stock.

The shares held by the interested stockholder are not counted as outstanding when calculating the two-thirds of the outstanding voting stock needed for approval.

The prohibition against these transactions does not apply if:

- prior to the time that any stockholder became an interested stockholder, the board of directors approved either the business combination or the transaction in which such stockholder acquired 15% or more of our outstanding voting stock, or
- the interested stockholder owns at least 85% of our outstanding voting stock as a result of a transaction in which such stockholder acquired 15% or more of our outstanding voting stock. Shares held by persons who are both directors and officers or by some types of employee stock plans are not counted as outstanding when making this calculation.

Exclusive Forum Selection. Our By-Laws provide that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware (or, if the Court of Chancery of the State of Delaware does not have jurisdiction, the federal district court for the District of Delaware) shall, to the fullest extent permitted by law, be the sole and exclusive forum for: (i) any derivative action or proceeding brought on behalf of the Company, (ii) any action asserting a claim of breach of a fiduciary duty owed by any director, officer, other employee or stockholder of the Company to the Company or the Company's stockholders, (iii) any action asserting a claim arising pursuant to any provision of the General Corporation Law of the State of Delaware or as to which the General Corporation Law of the State of Delaware confers jurisdiction on the Court of Chancery of the State of Delaware, or (iv) any action asserting a claim arising pursuant to any provision of our Certificate of Incorporation or our By-Laws or governed by the internal affairs doctrine; provided, however, that this exclusive forum provision shall not apply to claims arising under the Securities Act of 1933 or the Securities Exchange Act of 1934 or any other claim for which the federal courts have exclusive jurisdiction. In addition, unless the Company consents in writing to the selection of an alternative forum, the federal district courts of the United States of America shall, to the fullest extent permitted by law, be the sole and exclusive forum for the resolution of any claims arising under the Securities Act of 1933.

Casella
25 Greens Hill Lane Rutland, VT 05701
p. 802.775.0325 f. 802.775.3290

October 13, 2020

David L. Schmitt
Vice President and General Counsel
25 Greens Hill Lane
Rutland, VT 06702

Re: Departure

Dear Schmitty,

As we have discussed, your employment with Casella Waste Systems, Inc. (the "Company") will end effective December 31, 2020 (the "Separation Date"). Your employment is being terminated other than for "Cause" pursuant to Section 4.3.2 of the Employment Agreement between you and the Company dated as of December 31, 2006, as amended December 29, 2008 (the "Employment Agreement"), and you therefore are eligible to receive the benefits set forth in Section 4.3.2 of the Employment Agreement if you sign the General Release attached as Exhibit 1 to the Employment Agreement (the "General Release") no earlier than the Separation Date but no later than twenty-one (21) days thereafter, and do not revoke it during the Revocation Period (as defined in the General Release). A copy of the General Release is enclosed with this letter for your convenience.

Also detailed below for your convenience are the benefits you are eligible to receive pursuant to Section 4.3.2 of the Employment Agreement (in addition to payment, if not previously paid, for any base salary, unused vacation time, and/or bonus accrued through the Separation Date (provided that any such bonus shall be determined following certification of the Company's performance criteria by the Company's Board of Directors and paid at the same time that bonuses for 2020 are paid to active employees)):

- a. Severance. Commencing on the Company's first regularly scheduled payroll date that follows the expiration of the Revocation Period and continuing for twelve (12) months thereafter in accordance with the Company's regular payroll practices, you will receive severance pay in the form of salary continuation payments, in a total aggregate amount equal to twelve (12) months of pay at your current base salary rate (annualized rate of \$332,200.08), less all applicable taxes and withholdings. On the same date that you receive the first salary continuation payment, you will also receive a lump sum bonus payment in the amount of \$249,150.06, less all applicable taxes and withholdings.
- b. Benefits Contributions. Provided that you are eligible for and timely elect to continue receiving group health insurance coverages (medical and/or dental) pursuant to the law known as "COBRA", the Company will, for one (1) year

following the Separation Date (the “COBRA Contribution Period”), continue to pay the same share of the premiums for such coverages that the Company pays on behalf of active and similarly situated employees. The remaining balance of any premium costs during the COBRA Contribution Period, and all premium costs thereafter, shall be paid by you on a monthly basis for as long as, and to the extent that, you remain eligible for COBRA continuation. Additionally, you will be eligible to continue disability and life insurance coverage during the COBRA Contribution Period at the same rate that the Company pays on behalf of active and similarly situated employees, but only if and to the extent such post-termination coverage is available under the terms of the applicable plan(s).

- c. Equity Acceleration. Effective immediately following the expiration of the Revocation Period, any Restricted Stock Units previously granted to you by the Company shall immediately vest and become fully exercisable, and shall otherwise remain subject to the applicable award agreements and plan documents; provided, however, that any Performance-Based Stock Units held by you shall remain outstanding and shall vest as set forth on Schedule 1 to the applicable Performance-Based Stock Unit Agreement, based on the achievement of the performance goals for the applicable performance period as set forth on such Schedule 1, as if you had remained employed by the Company through the end of the performance period and shall otherwise remain subject to the applicable award agreements and plan documents. Attached for your information is a schedule of your outstanding equity awards.

Additional information about COBRA will be provided under separate cover nearer to the Separation Date.

If you have any questions about the above, please contact me.

Very truly yours,

/s/ John W. Casella
John W. Casella
Chairman & CEO

Enclosure: General Release
Schedule of outstanding equity awards

Casella Waste Systems, Inc.

Schedule #1: David Schmitt - Schedule of outstanding equity awards

Award Type	Grant Date	Maturity Date	Grant Price	Grant at Target	Vested to date	Unvested at Target
RSU	3/12/2018	3/12/2021	\$ 23.70	2,110	1,407	703
RSU	3/12/2019	3/12/2022	\$ 34.49	1,450	483	967
RSU	3/12/2020	3/12/2023	\$ 43.43	1,612	-	1,612
PSU	3/12/2018	12/31/2020	\$ 26.02	6,329	-	6,329
PSU	4/1/2019	12/31/2021	\$ 38.74	4,304	-	4,304
PSU	3/12/2020	12/31/2022	\$ 50.25	4,835	-	4,835

Award Type	Grant Date	Maturity Date	Strike Price	# of Options
Stock Options	11/17/2016	11/17/2026	\$ 12.48	8,988

EXHIBIT 1

GENERAL RELEASE

- a) Any Severance, Accelerated Payment or Severance Benefits paid hereunder are in full settlement of any and all claims Employee may assert against the Company and its affiliates for any reason.
- b) **In consideration of the provision of the Severance, Severance Benefits and the Accelerated Payment¹ described in the Agreement, and Employee's employment and compensation paid to Employee by Company prior to termination, which the Employee acknowledges he would not otherwise be entitled to receive, the Employee hereby agrees at the time of termination and prior to the receipt of Severance, Severance Benefits and the Accelerated Payment, to fully, forever, irrevocably and unconditionally release, remise and discharge the Company, its affiliates and subsidiaries, including all predecessors and successors, assigns, officers, directors, trustees, employees, insurers, agents and attorneys, past and present (hereinafter collectively "Released Parties"), from any and all claims, demands, liens, agreements, contracts, covenants, actions, suits, causes of action, obligations, controversies, debts, attorneys' fees, costs, expenses, damages, judgments, orders and liabilities, of whatever kind or nature, direct or indirect, in law, equity or otherwise, whether now known or unknown, vested or contingent, suspected or unsuspected, which the Employee may have against the Released Parties for any reason, including but not limited to any claims arising out of the Employee's employment by the Company or its affiliates or subsidiaries, the termination thereof, any claims for relief or causes of action under federal, state or local statute, ordinance or regulation dealing in any respect with employment and/or discrimination in employment, including, but not limited to, the Age Discrimination in Employment Act of 1967, 29 U.S.C. § 621 *et seq.*, Title VII of the Civil Rights Act of 1964, 42 U.S.C. §2000e *et seq.*, the Americans With Disabilities Act of 1990, 42 U.S.C., §12101 *et seq.*, all as amended; all claims arising out of the Fair Credit Reporting Act, 15 U.S.C. §1681 *et seq.*; the Worker Adjustment and Retraining Notification Act, 29 U.S.C § 2101 *et seq.*; the Employee Retirement Income Security Act of 1974 ("ERISA"), 29 U.S.C. §1001 *et seq.*, all as amended, all common law claims including, but not limited to, actions in tort, defamation and breach of contract, and any claim or damage arising out of the Executive's employment with or separation from the Company (including all claims for retaliation) under any common law theory or any federal, state or local statute or ordinance not expressly referenced above; provided, however, that nothing in this Agreement prevents the Employee from filing, cooperating with, or participating in any proceeding before the EEOC or state Fair Employment Practices Agency (except that the Employee**

¹ See Attached Schedule A.

acknowledges that he may not be able to recover any monetary benefits in connection with any such claim, charge or proceeding).

- c) The Employee expressly acknowledges and recites that he: (a) entered into this General Release knowingly and voluntarily; (b) has read and understands this General Release in its entirety; (c) has been advised orally and is hereby advised in writing to consult with an attorney with respect to this General Release before signing it; (d) has or has not sought counsel of any attorney in Employee's sole discretion, and (e) has not been forced to sign this General Release by any employee or agent of the Company.
- d) **The Employee expressly acknowledges that the Company has offered the Employee twenty-one (21) days in which to consider this General Release (the "Consideration Period"). For a period of seven (7) days from the date of the execution of this General Release, the Employee has the right to revoke this, and for purposes of this Agreement, this period is defined as the "Revocation Period." The parties agree that this General Release shall not become effective or enforceable until the seven (7) day Revocation Period has expired. The executed General Release shall be effective to commence the Revocation Period, and any notice of revocation of this General Release shall be effective when hand delivered or when sent by certified mail, return receipt requested, addressed to Kelley Robinson, Vice President of Human Resources, 25 Greens Hill Lane, Rutland, VT 05701. Employee further agrees and acknowledges that the offer by the Company of this General Release and its terms is extended to the Employee and remains in effect only for the duration of the Consideration Period.**
- e) **The Employee understands and agrees that by entering into this General Release he is waiving any and all rights or claims he might have under the Age Discrimination in Employment Act, as amended by the Older Workers Benefit Protection Act, and that he has received consideration beyond that to which he was previously entitled.**
- f) The Employee expressly agrees that he does not have any rights to reinstatement with the Company and expressly forever releases and discharges the Company from any obligation to employ him in any capacity.
- g) The Employee acknowledges that he has been or will be reimbursed by the Company for all business expenses, including relocation costs, if any, incurred in conjunction with the performance of his employment and that no other reimbursements are owed to the Employee. The Employee further acknowledges that he has received payment in full for all services rendered in conjunction with his employment by the Company, and that no other Severance, Accelerated Payment or Severance Benefits are owed to him, except as set forth in this General Release or in one or more of the other agreements referred to in this release.
- h) Employee has fully reviewed the terms of this Agreement, acknowledges that he understands the terms of this Agreement and states that he is entering into this Agreement knowingly, voluntarily and, subject to Section 2.1 of this Agreement, in full settlement of

all claims that he may have as a result of his employment with or separation of employment from the Company.

- i) Employee further agrees that, subject to reasonable compensation by the Company for his time and reimbursement by the Company of reasonable out-of-pocket costs and expenses, Employee will cooperate with the Company and its counsel to the extent reasonable with respect to any matter (including litigation, investigation or governmental proceeding) which relates to matters with which Employee was involved during the term of employment with the Company. Such cooperation shall include, to the extent reasonable, appearing from time to time at the offices of the Company or the Company's counsel for conferences and interviews and in general providing the officers of the Company and its counsel with the full benefit of Employee's knowledge with respect to any such matter. Employee agrees to render such cooperation in a timely fashion and at such times as may be reasonable and mutually agreeable to the parties concerned.

Witness: /s/ Shelley E. Sayward

Date: 10/13/20 to be held in escrow until 12/31/20

DAVID L. SCHMITT

/s/ David L. Schmitt

Date: January 1, 2021

Witness: Amy L. Coloutti

Date: October 13, 2020

CASELLA WASTE SYSTEMS, INC.

By: /s/ John W. Casella

Name: John W. Casella

Date: October 13, 2020

SCHEDULE A

SUMMARY OF SEVERANCE, SEVERANCE BENEFITS, AND ACCELERATED PAYMENT BEING PROVIDED PURSUANT TO EMPLOYMENT AGREEMENT BETWEEN DAVID L. SCHMITT ("EMPLOYEE") AND CASELLA WASTE SYSTEMS, INC. ("COMPANY") DATED AS OF DECEMBER 31, 2006, AS AMENDED DECEMBER 29, 2008

Severance	<p>(a) \$332,000.08 (constituting twelve (12) months of pay at current base salary rate), less all applicable taxes and withholdings, paid in installments in the form of salary continuation in accordance with Company's regular payroll practices, with payments commencing on Company's first regularly scheduled payroll date that follows the expiration of the Revocation Period and continuing for twelve (12) months thereafter.</p> <p>(b) \$249,150.06 (constituting bonus at target (75% of base salary rate)), less all applicable taxes and withholdings, payable on date Employee receives the first salary continuation payment.</p>
Benefits Contributions	<p>(a) Provided Employee is eligible for and timely elects COBRA, Company will, for one (1) year following Employee's date of termination (the "COBRA Contribution Period"), continue to pay the same share of the premiums for elected medical and/or dental coverages that it pays on behalf of active and similarly situated employees. The remaining balance of any premium costs during the COBRA Contribution Period, and all premium costs thereafter, will be paid by Employee on a monthly basis for as long as, and to the extent that, Employee remains eligible for COBRA continuation.</p> <p>(b) Employee will be eligible to continue disability and life insurance coverage during the COBRA Contribution Period at the same rate that the Company pays on behalf of active and similarly situated employees, but only if and to the extent such post-termination coverage is available under the terms of the applicable plan(s).</p>

Accelerated Vesting	Effective immediately following the expiration of the Revocation Period, any Restricted Stock Units previously granted to Employee by Company shall immediately vest and become fully exercisable, and shall otherwise remain subject to the applicable award agreements and plan documents; provided, however, that any Performance-Based Stock Units held by Employee shall remain outstanding and shall vest as set forth on Schedule 1 to the applicable Performance-Based Stock Unit Agreement, based on the achievement of the performance goals for the applicable performance period as set forth on such Schedule 1, as if Employee had remained employed by Company through the end of the performance period and shall otherwise remain subject to the applicable award agreements and plan documents.
Accelerated Payment	If not previously paid, Employee will receive payment for any base salary, unused vacation time, and/or bonus accrued through the date of termination (provided that any such bonus shall be determined following certification of Company's performance criteria by Company's Board of Directors and paid at the same time that bonuses for 2020 are paid to active employees).

EMPLOYMENT AGREEMENT

THIS EMPLOYMENT AGREEMENT, dated as of the 1st day of January, 2021 (the “Agreement”), is made by and between Casella Waste Systems, Inc., a Delaware corporation with an address of 25 Greens Hill Lane, Rutland, Vermont 05701 (“Company”), and Shelley Sayward an individual and a resident of Killington, Vermont (“Employee”).

WHEREAS, Company is in the business of providing solid waste management, disposal, resource recovery and recycling services and related businesses; and

WHEREAS, Company and Employee are mutually desirous that Company continue to employ Employee, and Employee accepts such continued employment, upon the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the foregoing and of the respective covenants and agreements of the parties herein contained, Company and Employee, intending to be legally bound, do hereby agree as follows:

1. Duties.

1.1 During the Agreement Term (as defined below), Employee is the Senior Vice President and General Counsel (or such other and comparable titles and positions as shall be given Employee by the Chief Executive Officer of Company), and shall faithfully perform for Company the duties of said office. Employee shall have such corporate power and authority as are necessary to perform the duties of such office and any other office(s) that are so assigned to him. Employee shall report to the Chief Executive Officer of Company. Employee shall devote substantially all of her business time and effort to the performance of her duties hereunder, shall use all reasonable efforts to advance the best interests of Company and shall not engage in outside business activities which materially interfere with the performance of her duties hereunder; provided, however, that, subject to Sections 5 and 6 below, nothing in this Agreement shall preclude Employee from devoting reasonable periods required for participating in professional, educational, philanthropic, public interest, charitable, social or community activities.

The duties to be performed by Employee hereunder shall be performed primarily in Rutland, Vermont, subject to reasonable travel requirements on behalf of Company.

2. Agreement Term. Company hereby employs Employee, and Employee hereby accepts such employment, for an initial term (“Initial Term”) commencing January 1, 2021 and ending on the first anniversary of such date, unless sooner terminated in accordance with the provisions of Section 4. The term of this Agreement shall be automatically extended for an additional year at the expiration of the Initial Term or any succeeding term (such Initial Term and any succeeding terms being hereinafter referred to as “Agreement Term”), unless terminated by Company or Employee pursuant to the terms of Section 4 of this Agreement.

3. Compensation and Expenses.

3.1 Base Salary. Subject to the next sentence of this Section 3.1.1, Employee shall be compensated at the annual rate of Three Hundred Thousand Dollars (\$300,000) (“Base Salary”), payable on a bi-weekly basis in accordance with Company’s standard payroll procedures. The Base Salary will be subject to annual reviews in accordance with Company policy. Such reviews shall form the basis for any increase in Base Salary.

3.2 Incentive Compensation. In addition to the Base Salary, on an annual basis, subject to annual reviews in accordance with Company policy, and also subject to the overall performance of Company, Employee shall be eligible but not guaranteed to receive a bonus (“Bonus”) consisting of (i) a cash bonus of up to seventy five percent (75%) of Employee’s Base Salary, (ii) issuance of additional stock options, restricted stock units (“RSUs”) or performance-based units (“PSUs”) of Company or (iii) a combination of both cash and stock options, RSUs or PSUs in an amount to be determined after the conclusion of each fiscal year of Company during the Agreement Term in the sole discretion of the Compensation Committee of the Board (the “Compensation Committee”). Should a cash Bonus be payable to Employee, it is expected that it will be payable no later than 2½ months after the end of the later of the Employer’s fiscal year or Employee’s taxable year during which the Bonus was earned.

3.3 Business Expenses. Upon submission of appropriate invoices or vouchers, Company shall pay or reimburse Employee for all reasonable and necessary expenses actually incurred or paid by him during the Agreement Term in the performance of her duties hereunder.

3.4 Participation in Benefit Plans. Subject to each plan’s Employee eligibility and contribution requirement, Employee shall be entitled to continue to participate in any health benefit or other employee benefit plans available to Company’s senior executives as in effect from time to time, including, without limitation, any qualified or non-qualified pension, profit sharing and savings plans, any death and disability benefit plans, any medical, dental, health and welfare plans and any stock purchase programs, on terms and conditions at least as favorable as provided to other senior executives of Company, to the extent that she may be eligible to do so under the applicable provisions of any such plan and applicable law. Following the termination of Employee hereunder or the expiration of the Severance Benefit Term (as defined in Section 4.4.1(e)), Employee and her eligible dependents shall be eligible for health care continuation under the Consolidated Omnibus Reconciliation Act of 1985 (“COBRA”) to the extent authorized by law and at Employee’s own cost.

3.5 Vacation. Employee shall be entitled to annual vacation as described in the Company Employee Handbook based on her tenure and shall be subject to the Company’s standard holiday schedule. Company shall have no obligation to pay Employee for any unused vacation, except as provided in the Company Employee Handbook and by applicable law.

3.6 Fringe Benefits and Perquisites. Employee shall be entitled to any fringe benefits and perquisites that are generally made available to senior executives of Company from time to time and that are approved by the Compensation Committee, including, but not limited to a car allowance in the amount of Six Hundred Dollars (\$600.00) per month and a Company gas card.

4. Termination. Employee's employment hereunder may be terminated only under the following circumstances:

4.1 Death. Employee's employment hereunder shall terminate upon her death, in which event Company shall pay to Employee's written designee or, if she has no written designee, to her spouse or, if she leaves no spouse and has no written designee, to her estate, (i) Severance payable in a lump sum within sixty (60) days of the date of Employee's death, (ii) the Acceleration Payment, payable in a lump sum within sixty (60) days of the date of Employee's death, and (iii) all reasonable expenses actually incurred or paid by Employee in the performance of her duties hereunder prior to the date of death.

4.2 Disability. Company may terminate Employee's employment hereunder if (i) as a result of Employee's incapacity due to physical or mental illness, Employee shall have been absent from her duties hereunder on a full-time basis for an aggregate of one hundred eighty (180) consecutive or non-consecutive business days in any twelve (12) consecutive-month period and (ii) within ten (10) days after written notice of termination hereunder is given by Company, Employee shall not have returned to the performance of her duties hereunder on a full-time basis. The determination of incapacity or disability under the preceding sentence shall be made in good faith by Company based upon information supplied by a physician selected by Company or its insurers and reasonably acceptable to Employee or her legal representative. During any period that Employee fails to perform her duties hereunder as a result of incapacity due to physical or mental illness (the "Disability Period"), Employee shall continue to receive her full Base Salary hereunder until her employment is terminated pursuant to this Section 4.2, provided that amounts payable to Employee shall be reduced by the sum of the amounts, if any, paid to Employee during the Disability Period under any disability benefit plans of Company. If Employee is terminated pursuant to this Section 4.2, Company shall pay to Employee (or her legal representative): (i) Severance, payable as described in Section 4.4.1(c), (ii) the Acceleration Payment, payable as described in Section 4.4.1(a), (iii) Severance Benefits for the Severance Benefit Term, and (iv) all reasonable expenses actually incurred or paid by Employee in the performance of her duties hereunder prior to the date of termination due to disability.

4.3 Termination by Company.

4.3.1 Termination by Company for Cause. Company shall have "Cause" to terminate Employee's employment hereunder upon Employee (A) being convicted of a crime involving Company (other than pursuant to actions taken at the direction or with the approval of the Board), (B) having engaged in (1) willful misconduct which has a material adverse effect on Company, (2) willful or gross neglect or behavior which has a material adverse effect on Company, (3) fraud, (4) misappropriation or (5) embezzlement in the performance of her duties hereunder, or (C) having breached in any material respect the material terms and provisions of this Agreement and failed to cure such breach within fifteen (15) days following written notice from Company specifying such breach. In the event Employee's employment is terminated by Company for "Cause", Employee shall be entitled to continue to receive Base Salary accrued but unpaid and expenses incurred but not repaid to Employee, in each case only until the effective date of such termination.

4.3.2 Termination by Company other than for Cause. In the event Employee's employment is terminated by Company other than for Cause, Employee shall be entitled to (i) Severance, payable as described in Section 4.4.1(c), (ii) the Acceleration Payment, payable as described in Section 4.4.1(a), (iii) Severance Benefits for the Severance Benefit Term, and (iv) the accelerated vesting at the time of termination of any stock options, RSUs or other equity grants (with respect to which payment, if any, also shall be made upon such vesting) issued by Company to Employee, provided that the accelerated vesting will only accelerate payment under clause (iv) where permitted by Section 409A (as defined below).

4.4 Termination by Employee.

4.4.1 Definitions. For purposes of this Agreement, the following terms shall have the respective meanings set forth below:

(a) "Acceleration Payment" means an amount in cash equal to the value of (i) any Base Salary accrued but unpaid prior to the date of termination, (ii) any Bonus relating to the prior fiscal year which, as of the date of termination, had been determined by Company pursuant to Section 3.2 but not yet paid prior to the date of termination and (iii) any vacation accrued but unused prior to the date of termination. The Acceleration Payment due under (i) shall be payable in a lump sum immediately upon Employee's termination, and the Acceleration Payment due under (ii) and (iii) (the "Contingent AP Amounts") shall be payable in a lump sum within sixty (60) days of the date of Employee's termination, subject, in the case of the contingent AP Amounts only, to Sections 11 and 20. The Acceleration Payment due under (i) is not "deferred compensation" within the meaning of Section 409A (as defined below) and the Contingent AP Amounts are intended to, and shall be construed to, fit within the short-term deferral exception in Section 409A.

(b) "Good Reason" means the occurrence of one or more of the following conditions: the assignment to Employee of any duties inconsistent with her status as Senior Vice President of the Company, a material adverse alteration in the nature or status of her responsibilities from those provided herein or the transfer of a significant portion of such responsibilities to one or more third persons, a material diminution in Employee's base compensation, or a material change in the geographic location at which the employee must perform services for the Company; provided that Employee has given Company notice within ninety (90) days of the initial existence of the condition, Company has not remedied the condition within thirty (30) days after receiving such notice and Employee actually terminates within one hundred eighty (180) days of the initial existence of such condition.

(c) "Severance" means the sum of: (i) one (1) times the highest Base Salary that was paid to Employee at any time prior to termination by Employee for Good Reason or prior to when Employee's employment is terminated by Company other than for "Cause" or by reason of Death or Disability; and (ii) one (1) times Employee's target annual cash incentive compensation opportunity under the Company's Non-Equity Incentive Plan (or such successor plan as may be in effect from time to time) for the fiscal year in which termination occurs. Severance due under (i) shall be paid bi-weekly in accordance with Company payroll procedures, commencing within sixty (60) days of Employee's termination, and Severance due under (ii)

shall be paid in a lump sum within sixty (60) days of the date of Employee's termination, in all cases subject to Section 11 and, to the extent applicable, Section 20, and less applicable Employee payroll deductions. Severance payable under clause (i) is intended to, and shall be construed to, fit within the short-term deferral and separation pay exceptions to Section 409A to the maximum permissible extent and each installment payment thereof shall be treated as a separate payment. Severance payable under clause (ii) is intended to, and shall be construed to, fit within the short-term deferral exception to Section 409A.

(d) "Severance Benefits" means should Employee be eligible for and elect to receive continued group medical and dental insurance through COBRA, the Company and Employee shall each continue to pay their respective portions of the premiums for such benefits as would be applicable to active and similarly situated employees of the Company. The Severance Benefits are intended to, and shall be construed to, fit within the short-term deferral and separation pay exceptions to Section 409A to the maximum permissible extent and each installment thereof shall be treated as a separate payment for purposes of Section 409A.

(e) "Severance Benefit Term" means one (1) year from the date Employee terminates her employment for Good Reason, or Employee's employment is terminated by Company other than for Cause or by reason of Disability; provided however that Company's obligation to provide Severance Benefits (i) shall terminate upon Employee becoming eligible for coverage under the medical benefits program of a subsequent employer and (ii) shall not be construed to extend any period of continuation coverage (e.g. COBRA) required by U.S. federal law.

(f) "Section 409A" means Section 409A of the Internal Revenue Code of 1986, and the regulations issued thereunder, as each may be amended from time to time.

4.4.2 Termination by Employee for Good Reason. At the election of Employee, Employee may terminate her employment for Good Reason immediately upon written notice to Company; provided, however, that Employee must make such election to terminate her employment for Good Reason within ninety (90) days of her becoming aware of the occurrence of such event that qualifies as Good Reason under Section 4.4.1(b) of this Agreement. If during the Agreement Term Employee's employment is terminated by Employee for Good Reason, Employee shall be entitled to receive from Company (i) Severance, payable as described in Section 4.4.1(c), (ii) the Acceleration Payment, payable as described in Section 4.4.1(a), (iii) Severance Benefits for the Severance Benefit Term and (iv) the accelerated vesting at the time of termination of any stock options or other equity grants (such as RSUs, with respect to which payment also shall be made upon such vesting) issued by Company to Employee, provided that the accelerated vesting will only accelerate payment under clause (iv) where permitted by Section 409A.

4.4.3 Termination by Employee for other than Good Reason. Upon forty five (45) days' prior written notice, Employee may terminate her employment with Company other than for Good Reason. If Employee voluntarily terminates her employment with Company other than for Good Reason, no further payment shall be due Employee pursuant to Sections 3 or 4 (other than payments for accrued and unpaid Base Salary and expenses incurred but not previously paid to Employee, in each case prior to such termination), however the indemnification provisions pursuant to Section 10 hereof shall survive any termination of employment of Employee hereunder.

4.5 Effect of Termination on Certain Obligations. No termination of the employment of Employee by either Company or Employee, whether for Good Reason or without Cause or for Cause, shall terminate, affect or impair any of the obligations or rights of the parties set forth in Sections 4, 5, 6, 7, 8, 10 and 21 of this Agreement, all of which obligations and rights shall survive any termination of employment of Employee hereunder.

5. Covenant Not to Disclose Confidential Information. During the Agreement Term, and for a period of two (2) years thereafter, Employee acknowledges that during the course of her affiliation with Company she has or will have access to and knowledge of certain information and data which Company considers confidential and/or proprietary and the release of such information or data to unauthorized persons would be extremely detrimental to Company. As a consequence, Employee hereby agrees and acknowledges that she owes a duty to Company not to disclose, and agrees that without the prior written consent of Company, at any time, either during or after her employment with Company, she will not communicate, publish or disclose, to any person anywhere, or use, any Confidential Information (as hereinafter defined), except as may be necessary or appropriate to conduct her duties hereunder, provided Employee is acting in good faith and in the best interest of Company. Employee will use all reasonable efforts at all times to hold in confidence and to safeguard any Confidential Information from falling into the hands of any unauthorized person and, in particular, will not permit any Confidential Information to be read, duplicated or copied. Employee will return to Company all Confidential Information in Employee's possession or under Employee's control when the duties of Employee no longer require Employee's possession thereof, or whenever Company shall so request, and in any event will promptly return all such Confidential Information if Employee's employment with Company is terminated for any or no reason and will not retain any copies thereof. For purposes hereof, the term "Confidential Information" shall mean any information or data used by or belonging or relating to Company whether communication is verbal or in writing that is not known generally to the industry in which Company is or may be engaged, including without limitation, any and all trade secrets, proprietary data and information relating to Company's business and products, intellectual property, patents, or copyrightable works, price list, customer lists, processes, procedures or standards, know-how, manuals, business strategies, records, drawings, specifications, designs, financial information, whether or not reduced to writing, or information or data which Company advises Employee should be treated as Confidential Information.

6. Covenant Not to Compete and Non-Solicitation and Non-Disparagement. Employee acknowledges that she, at the expense of Company, has been and will be specially trained in the business of Company, has established and will continue to establish favorable relations with the customers, clients and accounts of Company and will have access to trade secrets of Company. Therefore, in consideration of the compensation paid Employee hereunder, and of such training and relations and to further protect trade secrets, directly or indirectly, of Company, Employee agrees that during the term of her employment by Company, and for a period of one (1) year from and after the voluntary or involuntary termination of such employment for any or no reason, she will not, directly or indirectly, without the express written consent of Company:

(a) own or have any interest in or act as an officer, director, partner, principal, employee, agent, representative, consultant or independent contractor of, or in any way

assist in, any business located in or doing business in the United States of America or Canada in any area within one hundred (100) miles of any facility of Company during the term of Employee's employment, by Company, which is engaged, directly or indirectly, in (i) the solid waste processing, disposal and management business, (ii) the utilization of recyclable materials business or (iii) any other business Company is engaged in or proposes to engage in on the date this Agreement, or subsequently, at the date of termination of this Agreement, including, without limitation, businesses in the nature of, or relating to, sustainability programs, waste reduction, the creation of power or fuels out of waste, landfill gas to energy or gasification businesses, waste water treatment facilities (the businesses described in clauses (a)(i), (ii) and (iii) are collectively referred to as the "Competitive Businesses"); provided, however, that notwithstanding the above, Employee may own, directly or indirectly, solely as an investment, securities of any such person which are traded on any national securities exchange or NASDAQ if Employee (A) is not a controlling person of, or a member of a group which controls, such person and (B) does not, directly or indirectly, own 5% or more of any class of securities of such person;

(b) solicit clients, customers (who are or were customers of Company, or were prospects to be customers of Company, within the twelve (12) months prior to termination) or accounts of Company for, on behalf of or otherwise related to any such Competitive Businesses or any products related thereto; or

(c) solicit, employ or in any manner influence or encourage any person who is or shall be in the employ or service of Company to leave such employ or service.

Furthermore, the terms of this covenant not to compete shall be enforceable against Employee only to the extent that after termination of Employee's employment, Company continues to pay Employee any and all Severance Benefits, Severance and the Acceleration Payment as required under Section 4 of this Agreement. Furthermore, if any court determines that the covenant not to compete, or any part thereof, is unenforceable because of the duration of such provision or the geographic area or scope covered thereby, such court shall have the power to reduce the duration, area or scope of such provisions and, in its reduced form, such provision shall then be enforceable and shall be enforced.

7. Assignment of Inventions and Work. Employee hereby agrees to disclose in writing to Company any Inventions or copyrightable Works, which are conceived, made, discovered, written or created by Employee, alone and/or in combination with others, during Employee's employment with Company, and that Employee will, voluntarily and without additional consideration, assign Employee's rights and title to such Inventions or Works to Company. This assignment of Inventions or Works relates only to Inventions or Works which are directly related to the businesses of Company.

8. Specific Performance. Recognizing that irreparable damage will result to Company in the event of the breach or threatened breach of any of the foregoing covenants and assurances by Employee contained in Sections 5, 6 or 7 hereof, and that Company's remedies at law for any such breach or threatened breach will be inadequate, Company and its successors and assigns, in addition to such other remedies which may be available to them, shall be entitled to an injunction, including a mandatory injunction, to be issued by any court of competent jurisdiction

ordering compliance with this Agreement or enjoining and restraining Employee, and each and every person, firm or company acting in concert or participation with him, from the continuation of such breach.

9. Potential Unenforceability of Any Provision. Employee acknowledges and agrees that she has had an opportunity to seek advice of counsel in connection with this Agreement. If a final judicial determination is made that any provision of this Agreement is an unenforceable restriction against Employee or Company, the provisions hereof shall be rendered void only to the extent that such judicial determination finds such provisions unenforceable, and such unenforceable provisions shall automatically be reconstituted and become a part of this Agreement, effective as of the date first written above, to the maximum extent in favor of Company (in the case of an Employee breach) or Employee (in the case of a Company breach) that is lawfully enforceable. A judicial determination that any provision of this Agreement is unenforceable shall in no instance render the entire Agreement unenforceable, but rather the Agreement will continue in full force and effect absent any unenforceable provision to the maximum extent permitted by law.

10. Indemnification. Company agrees that, except as limited by Company's Certificate of Incorporation or By-Laws (as either or both may be amended from time to time), or applicable law, Company shall indemnify Employee (and promptly advance expenses as may be required) to the fullest extent permitted by applicable law in effect on the date hereof and to such greater extent as applicable law may thereafter from time to time permit. Employee shall be entitled to this indemnification if by reason of her employment or by any reason of anything done or not done by Employee in any such capacity she is or is threatened to be made, a party to any threatened, pending, or completed Proceeding (as defined herein). Employee will be indemnified to the full extent permitted by applicable law against expenses, judgments, penalties, fines and amounts paid in settlement including all interest assessments and other charges paid or payable in connection with or in respect of such expenses, judgments, fines, penalties or amounts paid in settlement) actually and reasonably incurred by him or on her behalf in connection with such Proceeding or any claim, issue or matter therein, if she acted in good faith and in a manner she reasonably believed to be in or not opposed to the best interests of Company, and, with respect to any criminal Proceeding, had no reasonable cause to believe her conduct was unlawful. "Proceeding" includes any threatened, pending, or completed claim, action, suit, arbitration, alternate dispute resolution mechanism, administrative hearing, appeal, inquiry or investigation, whether civil, criminal, administrative, arbitral, investigative, or other (whether instituted by Company or any other party), or any inquiry or investigation that Employee in good faith believes might lead to the institution of any such action, suit or proceeding whether civil, criminal, administrative, investigative, or other, including any action, suit arbitration, alternate dispute resolution mechanism, administrative hearing, appeal, or any inquiry or investigation pending on or prior to the date hereof or initiated by Employee to enforce her rights under this indemnification section of this Agreement. This indemnification and the advancement of expenses shall include attorney's fees and other reasonable expenses incurred by Employee pursuant to this clause. In the event that there is a potential conflict of interest between Employee and Company, Employee may select her own counsel (and still be entitled to the benefit of this indemnification). Employee must submit written requests for payment pursuant to

the Section 10 within one hundred twenty (120) days after Employee incurs any expenses or other amounts under this Section 10. Payment or reimbursement shall be governed by Section 20. This indemnification clause shall survive the termination of this Agreement.

11. General Release. Employee recognizes, understands and agrees that the provision of this Agreement by Company, and its terms of employment, as well as its terms of Severance, Severance Benefits and Contingent AP Amounts are generous and extraordinary, and that in consideration thereof, Employee agrees in this Agreement that in advance of and as a condition to the receipt of such Severance Benefits, Severance and Contingent AP Amount, if any, Employee will execute a General Release in a form mutually satisfactory to Company and Employee, but in any case, including appropriate releases for all claims or demands Employee may have against Company, including, without limitation, claims or demands for violation of any laws, rules, regulations, orders or decrees established to protect the rights of employees pursuant to anti-discrimination laws and including all protections required by law to be afforded to Employee relative to the execution and revocation of such a General Release. Employee understands and agrees that no Severance Benefits, Severance or Contingent AP Amounts will be made to Employee unless, and until Employee and Company execute such a General Release, and Employee's rights to revoke such General Release have expired or have been extinguished as a matter of law. Such General Release must be executed and submitted to Company within sixty (60) days following termination of employment. Payment of amounts exempt from Section 409A shall be made (or shall begin, as the case may be) immediately upon the expiration of the revocation period, as shall the payment of any amounts that constitute "deferred compensation" within the meaning of Section 409A (subject to any delay under Section 20 and also provided that if the sixty (60) day period ends in the calendar year subsequent to the year containing the termination of employment, the payment of deferred compensation shall not be made or being earlier than the first business day in that subsequent year).

12. Corporate Authority. Company represents and warrants to Employee that (a) Company has all necessary power and authority to enter into, and be bound by the terms of, this Agreement, (b) the execution, delivery, and performance of the undertakings contemplated by the Agreement have been duly authorized by Company, and (c) this Agreement shall be a legal, valid and binding obligation of Company, enforceable against Company in accordance with its terms, except as such enforceability may be limited by applicable bankruptcy, insolvency, moratorium, reorganization or similar laws affecting the enforcement of creditors rights generally.

13. Notice. Any notice or other communication hereunder shall be in writing and shall be mailed or delivered to the respective parties hereto as follows:

(a) If to Company:

Casella Waste Systems, Inc.

25 Greens Hill Lane
Rutland, VT 05701
Attention: Chairman & CEO

(b) If to Employee:

Shelley Sayward
180 Old Coach Road
Killington, VT 05701

The addresses of either party hereto above may be changed by written notice to the other party.

14. Amendment; Waiver. This Agreement may be amended, modified, superseded, cancelled, renewed or extended and the terms of covenants hereof may be waived, only by written instrument executed by the party against whom such modification or waiver is sought to be enforced. The failure of either party at any time or times to require performance of any provision hereof shall in no manner affect the right at a later time to enforce the same. No waiver by either party of the breach of any term or covenant contained in this Agreement, whether by conduct or otherwise, in anyone or more instances, shall be deemed to be, or construed as, a further or continuing waiver of any such breach, or a waiver of the breach of any other term or covenant in this Agreement.

15. Benefit and Binding Effect. This Agreement shall inure to the benefit of and be binding upon the successors and assigns of Company, but shall be personal to and not assignable by Employee. The obligations of Company hereunder are personal to Employee or where applicable to her spouse or estate, and shall be continued only so long as Employee shall be personally discharging her duties hereunder. Company may assign its rights, together with its obligations, to any corporation which is a direct or indirect wholly-owned subsidiary of Company; provided, however, that Company shall not be released from its obligations hereunder without the prior written consent of Employee, which consent shall not be unreasonably withheld.

16. GOVERNING LAW. THIS AGREEMENT SHALL BE GOVERNED BY THE LAWS OF THE STATE OF VERMONT REGARDLESS OF THE LAWS THAT MIGHT BE APPLICABLE UNDER PRINCIPLES OF CONFLICTS OF LAW.

17. Counterparts. This Agreement may be executed by the parties hereto in separate counterparts, each of which when so executed and delivered shall be an original but all such counterparts together shall constitute one and the same instrument. Each counterpart may consist of two copies hereof each signed by one of the parties hereto.

18. Headings. The headings in this Agreement are for reference only and shall not affect the interpretation of this Agreement.

19. Entire Agreement. This Agreement constitutes the entire understanding between the parties with respect to the subject matter hereof, superseding all negotiations, prior discussions and preliminary agreements. No subsequent modifications may be made to this Agreement except by signed writing of the parties.

20. Compliance with Section 409A.

Payments and benefits under this Agreement are intended to be exempt from Section 409A to the maximum possible extent and, to the extent not exempt, are intended to comply with the requirements of Section 409A. The provisions of this Agreement shall be construed in a manner consistent with such intent.

With respect to any “deferred compensation” within the meaning of Section 409A that is payable or commences to be payable under this Agreement solely by reason of Employee’s termination of employment, such amount shall be payable or commence to be payable as soon as, and no later than, Employee experiences a “separation from service” as defined in Section 409A, subject to Section 11 of the Agreement and subject to the six-month delay described below, if applicable. In addition, nothing in the Agreement shall require Company to, and Company shall not, accelerate the payment of any amount that constitutes “deferred compensation” except to the extent permitted under Section 409A.

If Employee is a “Specified Employee” within the meaning of Section 409A at the time her employment terminates and any amount payable to Employee by virtue of her separation from service constitutes “deferred compensation” within the meaning of Section 409A, any such amounts that otherwise would be payable during the first six months following separation from service shall be delayed and accumulated for a period of six months and paid in a lump sum on the first day of the seventh month. Amounts exempt from Section 409A shall not be so delayed. The Severance and Severance Benefits described in Section 4.4.1 of the Agreement are intended to, and shall be construed to, fit within the short-term deferral and separation pay exceptions to Section 409A to the maximum permissible extent and each installment thereof shall be treated as a separate payment for such purposes.

Any reimbursements or in-kind benefits provided to Employee shall be administered in accordance with Section 409A, such that: (a) the amount of expenses eligible for reimbursement, or in-kind benefits provided, during one year shall not affect the expenses eligible for reimbursement or the in-kind benefits provided in any other year; (b) reimbursement of eligible expenses shall be made on or before December 31 of the year following the year in which the expense was incurred; and (c) the right to reimbursement or in-kind benefits shall not be subject to liquidation or to exchange for another benefit.

21. AGREEMENT TO ARBITRATE.

The undersigned parties agree that any disputes that may arise between them (including but not limited to any controversies or claims arising out of or relating to this Agreement or any alleged breach thereof, and any dispute over the interpretation or scope of this arbitration clause) shall be settled by arbitration by a single arbitrator agreed to by the parties, or if one cannot be agreed to by the parties, then by a three (3) person arbitration panel which is selected by the party of the first party, the second member chosen by the party of the second party, and the third member being selected by the first two arbitrators as previously selected by the parties. The arbitrator(s)

shall administer the arbitration in accordance with the American Arbitration Association, Commercial Arbitration Rules, and judgment on the award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof. No party shall be entitled to punitive, consequential or treble damages. The arbitrator(s) selection process shall be concluded by the parties within sixty (60) days of a party's Notice of Arbitration.

ACKNOWLEDGMENT OF ARBITRATION PURSUANT TO 12 V.S.A. § 5651 et seq. THE PARTIES HERETO ACKNOWLEDGE THAT THIS DOCUMENT CONTAINS AN AGREEMENT TO ARBITRATE. AFTER SIGNING THIS DOCUMENT EACH PARTY UNDERSTANDS THAT SHE WILL NOT BE ABLE TO BRING A LAWSUIT CONCERNING ANY DISPUTE THAT MAY ARISE WHICH IS COVERED BY THIS ARBITRATION AGREEMENT EXCEPT AS PROVIDED IN THIS PARAGRAPH OR UNLESS IT INVOLVES A QUESTION OF CONSTITUTIONAL LAW OR CIVIL RIGHTS. INSTEAD EACH PARTY HAS AGREED TO SUBMIT ANY SUCH DISPUTE TO AN IMPARTIAL ARBITRATOR.

IN WITNESS WHEREOF, all parties have set their hand and seal to this Agreement and Acknowledgement of Arbitration pursuant to 12 V.S.A. § 5651 et seq. as of the dates written below:

Witness: Amy L. Coloutti	SHELLEY E. SAYWARD /s/ Shelley E. Sayward
_____ Date: February 17, 2021	_____ Date: February 17, 2021

Witness: Amy L. Coloutti	CASELLA WASTE SYSTEMS, INC. By:/s/ John W. Casella
_____ Date: February 17, 2021	_____ Name: John W. Casella, Chairman & CEO

Date: February 17, 2021

CASELLA WASTE SYSTEMS, INC.
25 Greens Hill Road
Rutland, VT 05701

February 17, 2021

Edmond Coletta
Senior Vice President and Chief Financial Officer
Casella Waste Systems, Inc.
25 Greens Hill Road
Rutland, VT 05701

Dear Mr. Coletta:

Reference is made to that certain Employment Agreement dated as of September 1, 2012 between Casella Waste Systems, Inc. (the "Company") and you regarding the terms of your employment with the Company (the "Employment Agreement").

To clarify the intended operation of the Employment Agreement relating to severance payments, the Company and you hereby agree to amend the Employment Agreement as follows:

Section 4.4.1(e) is amended to read:

“(e) “Severance” means the sum of: (i) one (1) times the highest annual Base Salary that was paid to Employee at any time prior to termination by Employee for Good Reason or prior to when Employee’s employment is terminated by Company other than for “Cause” or by reason of Death or Disability; and (ii) one (1) times Employee’s target annual cash incentive compensation opportunity under the Company’s Non-Equity Incentive Plan (or such successor plan as may be in effect from time to time) for the fiscal year in which termination occurs. Severance due under (i) shall be paid bi-weekly in accordance with Company payroll procedures, commencing immediately upon termination, and Severance due under (ii) shall be paid in a lump sum within sixty (60) days of the date of Employee’s termination, in all cases subject to Section 11 and, to the extent applicable, Section 20, and less applicable Employee payroll deductions. Severance payable under clause (i) is intended to, and shall be construed to, fit within the short-term deferral and separation pay exceptions to Section 409A to the maximum permissible extent and each installment payment thereof shall be treated as a separate payment. Severance payable under clause (ii) is intended to, and shall be construed to, fit within the short-term deferral exception to Section 409A.”

Except as modified by this letter, all other terms and conditions of the Employment Agreement shall remain in full force and effect.

Please indicate your agreement with the above terms by signing below.

Very truly yours,

Casella Waste Systems, Inc.

By: /s/ John W. Casella

John W. Casella
Chief Executive Officer

Accepted and agreed as of February 17, 2021

/s/ Edmond R. Coletta
Edmond R. Coletta

CASELLA WASTE SYSTEMS, INC.
25 Greens Hill Road
Rutland, VT 05701

February 17, 2021

Christopher B. Heald
Vice President and Chief Accounting Officer
Casella Waste Systems, Inc.
25 Greens Hill Road
Rutland, VT 05701

Dear Mr. Heald:

Reference is made to that certain Employment Agreement dated as of March 1, 2016 between Casella Waste Systems, Inc. (the "Company") and you regarding the terms of your employment with the Company (the "Employment Agreement").

To clarify the intended operation of the Employment Agreement relating to severance payments, the Company and you hereby agree to amend the Employment Agreement as follows:

Section 4.4.1(c) is amended to read:

“(c) “Severance” means the sum of: (i) one (1) times the highest annual Base Salary that was paid to Employee at any time prior to termination by Employee for Good Reason or prior to when Employee’s employment is terminated by Company other than for “Cause” or by reason of Death or Disability; and (ii) one (1) times Employee’s target annual cash incentive compensation opportunity under the Company’s Non-Equity Incentive Plan (or such successor plan as may be in effect from time to time) for the fiscal year in which termination occurs. Severance due under (i) shall be paid bi-weekly in accordance with Company payroll procedures, commencing within sixty (60) days of Employee’s termination, and Severance due under (ii) shall be paid in a lump sum within sixty (60) days of the date of Employee’s termination, in all cases subject to Section 11 and, to the extent applicable, Section 20, and less applicable Employee payroll deductions. Severance payable under clause (i) is intended to, and shall be construed to, fit within the short-term deferral and separation pay exceptions to Section 409A to the maximum permissible extent and each installment payment thereof shall be treated as a separate payment. Severance payable under clause (ii) is intended to, and shall be construed to, fit within the short-term deferral exception to Section 409A.”

Except as modified by this letter, all other terms and conditions of the Employment Agreement shall remain in full force and effect.

Please indicate your agreement with the above terms by signing below.

Very truly yours,

Casella Waste Systems, Inc.

By: /s/ John W. Casella

John W. Casella
Chief Executive Officer

Accepted and agreed as of February 17, 2021

/s/ Christopher B. Heald
Christopher B. Heald

Subsidiaries of Registrant

Name	Jurisdiction of Incorporation
171 Church Street, LLC	Vermont
AGreen Energy, LLC	Massachusetts
All Cycle Waste, Inc.	Vermont
BGreen Energy, LLC	Massachusetts
Blow Bros.	Maine
Bristol Waste Management, Inc.	Vermont
C.V. Landfill, Inc.	Vermont
Casella Major Account Services LLC	Vermont
Casella of Holyoke, Inc.	Massachusetts
Casella Recycling, LLC	Maine
Casella Transportation, Inc.	Vermont
Casella Waste Management of Massachusetts, Inc.	Massachusetts
Casella Waste Management of N.Y., Inc.	New York
Casella Waste Management of Pennsylvania, Inc.	Pennsylvania
Casella Waste Management, Inc.	Vermont
Casella Waste Services of Ontario LLC	New York
Chemung Landfill LLC	New York
Evergreen National Indemnity Company	Ohio
Forest Acquisitions, Inc.	New Hampshire
Granite Street Landfill, LLC	New Hampshire
GreenerU, Inc.	Delaware
GroundCo LLC	New York
Hakes C & D Disposal, Inc.	New York
Hardwick Landfill, Inc.	Massachusetts
Hiram Hollow Regeneration Corp.	New York
KTI Environmental Group, Inc.	New Jersey
KTI Specialty Waste Services, Inc.	Maine
KTI, Inc.	New Jersey
New England Waste Services of ME, Inc.	Maine
New England Waste Services of N.Y., Inc.	New York
New England Waste Services of Vermont, Inc.	Vermont
New England Waste Services, Inc.	Vermont
Newbury Waste Management, Inc.	Vermont
NEWS of Worcester LLC	Massachusetts
NEWSME Landfill Operations LLC	Maine
North Country Environmental Services, Inc.	Virginia
Northern Properties Corporation of Plattsburgh North Rd, LLC	New York Vermont
Oxford Transfer Station, LLC	Delaware
Pine Tree Waste, Inc.	Maine
Portland C&D Site, Inc.	New York
Schultz Landfill, Inc.	New York
Southbridge Recycling & Disposal Park, Inc.	Massachusetts
Sunderland Waste Management, Inc.	Vermont
TAM, Inc.	Vermont
TAM Organics, LLC	Vermont
TAM Recycling, LLC	Vermont
The Hyland Facility Associates	New York
Tompkins County Recycling LLC	Delaware
Waste-Stream Inc.	New York

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in these Registration Statements on Form S-8 (Nos. 333-40267, 333-43537, 333-43539, 333-43541, 333-43543, 333-43635, 333-67487, 333-92735, 333-31022, 333-100553, 333-141038, 333-163645, 333-175010, 333-199685 and 333-214683) and on Form S-3 (Nos. 333-85279, 333-88097, 333-95841, 333-31268, and 333-224788) of Casella Waste Systems, Inc. and subsidiaries (the Company) of our report dated February 19, 2021, relating to the consolidated financial statements, and the financial statement schedules and the effectiveness of internal control over financial reporting of the Company, appearing in the Annual Report on Form 10-K of Casella Waste Systems, Inc. and subsidiaries for the year ended December 31, 2020.

/s/ RSM US LLP

Boston, Massachusetts

February 19, 2021

CERTIFICATION

I, John W. Casella, certify that:

1. I have reviewed this Annual Report on Form 10-K of Casella Waste Systems, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 19, 2021

By: /s/ John W. Casella
John W. Casella
Chairman and Chief Executive Officer
(Principal Executive Officer)

CERTIFICATION

I, Edmond R. Coletta, certify that:

1. I have reviewed this Annual Report on Form 10-K of Casella Waste Systems, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 19, 2021

By: /s/ Edmond R. Coletta

Edmond R. Coletta

Senior Vice President and Chief Financial Officer

(Principal Financial Officer)

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

STATEMENT PURSUANT TO 18 U.S.C. §1350

Pursuant to 18 U.S.C. §1350, each of the undersigned certifies that, to his knowledge, this Annual Report on Form 10-K for the fiscal year ended December 31, 2020 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that the information contained in this report fairly presents, in all material respects, the financial condition and results of operations of Casella Waste Systems, Inc.

Date: February 19, 2021

By: /s/ John W. Casella

John W. Casella
Chairman and Chief Executive Officer
(Principal Executive Officer)

Date: February 19, 2021

By: /s/ Edmond R. Coletta

Edmond R. Coletta
Senior Vice President and Chief Financial Officer
(Principal Financial Officer)

Date: February 19, 2021

By: /s/ Christopher B. Heald

Christopher B. Heald
Vice President and Chief Accounting Officer
(Principal Accounting Officer)