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

FORM 10-Q

(Mark One)

☑ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the quarterly period ended March 31, 2022

Or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the transition period from to

Commission file number 1-34370

WASTE CONNECTIONS, INC.

(Exact name of registrant as specified in its charter)

Ontario, Canada
(State or other jurisdiction of incorporation or organization)

98-1202763
(I.R.S. Employer Identification No.)

6220 Hwy 7, Suite 600
Woodbridge
Ontario L4H 4G3
Canada
(Address of principal executive offices)

(905) 532-7510
(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Shares, no par value	WCN	New York Stock Exchange ("NYSE") Toronto Stock Exchange ("TSX")

Indicate by check mark 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 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. (Check one):

☑ Large Accelerated Filer ☐ Accelerated Filer ☐ Non-accelerated Filer ☐ Smaller Reporting Company ☐ Emerging Growth Company

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 Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes ☐ No ☑

Indicate the number of shares outstanding of each of the issuer's classes of common shares:

As of April 22, 2022:257,164,982 common shares

WASTE CONNECTIONS, INC.
FORM 10-Q

TABLE OF CONTENTS

PART I – FINANCIAL INFORMATION

Item 1. Financial Statements

WASTE CONNECTIONS, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(Unaudited)
(In thousands of U.S. dollars, except share and per share amounts)

	March 31, 2022	December 31, 2021
ASSETS		
Current assets:		
Cash and equivalents	$ 391,417	$ 147,441
Accounts receivable, net of allowance for credit losses of $19,361 and $18,480 at March 31, 2022 and December 31, 2021, respectively	727,737	709,614
Prepaid expenses and other current assets	293,625	175,722
Total current assets	1,412,779	1,032,777
Restricted cash	71,867	72,174
Restricted investments	59,449	59,014
Property and equipment, net	5,770,931	5,721,949
Operating lease right-of-use assets	162,332	160,567
Goodwill	6,427,763	6,187,643
Intangible assets, net	1,388,687	1,350,597
Other assets, net	120,554	115,203
Total assets	$ 15,414,362	$ 14,699,924
LIABILITIES AND EQUITY		
Current liabilities:		
Accounts payable	$ 423,175	$ 392,868
Book overdraft	16,809	16,721
Deferred revenue	293,729	273,720
Accrued liabilities	396,292	442,596
Current portion of operating lease liabilities	35,079	38,017
Current portion of contingent consideration	64,480	62,804
Current portion of long-term debt and notes payable	28,070	6,020
Total current liabilities	1,257,634	1,232,746
Long-term portion of debt and notes payable	5,817,641	5,040,500
Long-term portion of operating lease liabilities	134,392	129,628
Long-term portion of contingent consideration	31,558	31,504
Deferred income taxes	1,002,800	850,921
Other long-term liabilities	411,278	421,080
Total liabilities	8,655,303	7,706,379
Commitments and contingencies (Note 17)		
Equity:		
Common shares: 257,164,867 shares issued and 257,096,408 shares outstanding at March 31, 2022; 260,283,158 shares issued and 260,212,496 shares outstanding at December 31, 2021	3,269,887	3,693,027
Additional paid-in capital	196,385	199,482
Accumulated other comprehensive income	110,358	39,584
Treasury shares: 68,459 and 70,662 shares at March 31, 2022 and December 31, 2021, respectively	—	—
Retained earnings	3,177,778	3,056,845
Total Waste Connections' equity	6,754,408	6,988,938
Noncontrolling interest in subsidiaries	4,651	4,607
Total equity	6,759,059	6,993,545
	$ 15,414,362	$ 14,699,924

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

WASTE CONNECTIONS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF NET INCOME
(Unaudited)
(In thousands of U.S. dollars, except share and per share amounts)

	Three Months Ended March 31,	
	2022	2021
Revenues	$ 1,646,255	$ 1,395,942
Operating expenses:		
Cost of operations	989,518	825,920
Selling, general and administrative	163,414	141,422
Depreciation	179,950	157,402
Amortization of intangibles	37,635	32,192
Impairments and other operating items	1,878	634
Operating income	273,860	238,372
Interest expense	(41,324)	(42,425)
Interest income	137	1,103
Other income (expense), net	(3,466)	3,548
Income before income tax provision	229,207	200,598
Income tax provision	(48,839)	(40,291)
Net income	180,368	160,307
Plus (less): Net loss (income) attributable to noncontrolling interests	(44)	2
Net income attributable to Waste Connections	$ 180,324	$ 160,309
Earnings per common share attributable to Waste Connections' common shareholders:		
Basic	$ 0.70	$ 0.61
Diluted	$ 0.69	$ 0.61
Shares used in the per share calculations:		
Basic	258,946,933	262,697,487
Diluted	259,560,983	263,156,655
Cash dividends per common share	$ 0.230	$ 0.205

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

WASTE CONNECTIONS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(Unaudited)
(In thousands of U.S. dollars)

	Three Months Ended March 31,	
	2022	**2021**
Net income	$ 180,368	$ 160,307
Other comprehensive income, before tax:		
Interest rate swap amounts reclassified into interest expense	4,750	4,796
Changes in fair value of interest rate swaps	44,699	20,739
Foreign currency translation adjustment	34,429	28,054
Other comprehensive income, before tax	83,878	53,589
Income tax expense related to items of other comprehensive income	(13,104)	(6,767)
Other comprehensive income, net of tax	70,774	46,822
Comprehensive income	251,142	207,129
Plus (less): Comprehensive loss (income) attributable to noncontrolling interests	(44)	2
Comprehensive income attributable to Waste Connections	$ 251,098	$ 207,131

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

WASTE CONNECTIONS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF EQUITY
(Unaudited)
(In thousands of U.S. dollars, except share amounts)

	WASTE CONNECTIONS' EQUITY								
	COMMON SHARES		ADDITIONAL PAID-IN	ACCUMULATED OTHER COMPREHENSIVE	TREASURY SHARES		RETAINED	NONCONTROLLING	
	SHARES	AMOUNT	CAPITAL	INCOME	SHARES	AMOUNT	EARNINGS	INTERESTS	TOTAL
Balances at December 31, 2021	260,212,496	$ 3,693,027	$ 199,482	$ 39,584	70,662	$ —	$ 3,056,845	$ 4,607	$ 6,993,545
Sale of common shares held in trust	2,203	305	—	—	(2,203)	—	—	—	305
Vesting of restricted share units	312,706	—	—	—	—	—	—	—	—
Vesting of performance-based restricted share units	57,677	—	—	—	—	—	—	—	—
Restricted share units released from deferred compensation plan	19,149	—	—	—	—	—	—	—	—
Tax withholdings related to net share settlements of equity-based compensation	(143,243)	—	(17,236)	—	—	—	—	—	(17,236)
Equity-based compensation	—	—	14,139	—	—	—	—	—	14,139
Exercise of warrants	11,560	—	—	—	—	—	—	—	—
Issuance of shares under employee share purchase plan	12,015	1,554	—	—	—	—	—	—	1,554
Repurchase of common shares	(3,388,155)	(424,999)	—	—	—	—	—	—	(424,999)
Cash dividends on common shares	—	—	—	—	—	—	(59,391)	—	(59,391)
Amounts reclassified into earnings, net of taxes	—	—	—	3,491	—	—	—	—	3,491
Changes in fair value of cash flow hedges, net of taxes	—	—	—	32,854	—	—	—	—	32,854
Foreign currency translation adjustment	—	—	—	34,429	—	—	—	—	34,429
Net income	—	—	—	—	—	—	180,324	44	180,368
Balances at March 31, 2022	257,096,408	$ 3,269,887	$ 196,385	$ 110,358	68,459	$ —	$ 3,177,778	$ 4,651	$ 6,759,059

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

WASTE CONNECTIONS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF EQUITY
(Unaudited)
(In thousands of U.S. dollars, except share amounts)

	WASTE CONNECTIONS' EQUITY								
	COMMON SHARES		ADDITIONAL PAID-IN	ACCUMULATED OTHER COMPREHENSIVE	TREASURY SHARES		RETAINED	NONCONTROLLING	
	SHARES	AMOUNT	CAPITAL	INCOME (LOSS)	SHARES	AMOUNT	EARNINGS	INTERESTS	TOTAL
Balances at December 31, 2020	262,824,990	$ 4,030,368	$ 170,555	$ (651)	74,184	$ —	$ 2,659,001	$ 4,165	$ 6,863,438
Sale of common shares held in trust	1,318	131	—	—	(1,318)	—	—	—	131
Vesting of restricted share units	340,529	—	—	—	—	—	—	—	—
Vesting of performance-based restricted share units	154,251	—	—	—	—	—	—	—	—
Restricted share units released from deferred compensation plan	19,150	—	—	—	—	—	—	—	—
Tax withholdings related to net share settlements of equity-based compensation	(186,039)	—	(18,490)	—	—	—	—	—	(18,490)
Equity-based compensation	—	—	9,573	—	—	—	—	—	9,573
Exercise of warrants	3,490	—	—	—	—	—	—	—	—
Repurchase of common shares	(666,184)	(65,999)	—	—	—	—	—	—	(65,999)
Cash dividends on common shares	—	—	—	—	—	—	(53,909)	—	(53,909)
Amounts reclassified into earnings, net of taxes	—	—	—	3,525	—	—	—	—	3,525
Changes in fair value of cash flow hedges, net of taxes	—	—	—	15,243	—	—	—	—	15,243
Foreign currency translation adjustment	—	—	—	28,054	—	—	—	—	28,054
Net income (loss)	—	—	—	—	—	—	160,309	(2)	160,307
Balances at March 31, 2021	262,491,505	$ 3,964,500	$ 161,638	$ 46,171	72,866	$ —	$ 2,765,401	$ 4,163	$ 6,941,873

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

WASTE CONNECTIONS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)
(In thousands of U.S. dollars)

	Three Months Ended March 31, 2022	Three Months Ended March 31, 2021
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net income	$ 180,368	$ 160,307
Adjustments to reconcile net income to net cash provided by operating activities:		
Loss on disposal of assets and impairments	2,090	401
Depreciation	179,950	157,402
Amortization of intangibles	37,635	32,192
Deferred income taxes, net of acquisitions	38,378	8,379
Current period provision for expected credit losses	3,022	1,915
Amortization of debt issuance costs	1,195	1,359
Share-based compensation	14,635	10,307
Interest accretion	4,448	4,204
Payment of contingent consideration recorded in earnings	—	(520)
Adjustments to contingent consideration	(52)	89
Other	382	(796)
Net change in operating assets and liabilities, net of acquisitions	(21,154)	25,157
Net cash provided by operating activities	440,897	400,396
CASH FLOWS FROM INVESTING ACTIVITIES:		
Payments for acquisitions, net of cash acquired	(355,212)	(8,545)
Capital expenditures for property and equipment	(152,318)	(96,793)
Proceeds from disposal of assets	15,012	2,080
Other	2,637	2,705
Net cash used in investing activities	(489,881)	(100,553)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Proceeds from long-term debt	1,305,288	—
Principal payments on notes payable and long-term debt	(505,597)	(5,559)
Payment of contingent consideration recorded at acquisition date	(3,571)	(4,807)
Change in book overdraft	87	(16,849)
Payments for repurchase of common shares	(424,999)	(65,999)
Payments for cash dividends	(59,391)	(53,909)
Tax withholdings related to net share settlements of equity-based compensation	(17,236)	(18,490)
Debt issuance costs	(4,382)	—
Proceeds from issuance of shares under employee share purchase plan	1,554	—
Proceeds from sale of common shares held in trust	305	131
Net cash provided by (used in) financing activities	292,058	(165,482)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	595	403
Net increase in cash, cash equivalents and restricted cash	243,669	134,764
Cash, cash equivalents and restricted cash at beginning of period	219,615	714,389
Cash, cash equivalents and restricted cash at end of period	$ 463,284	$ 849,153
Non-cash financing activities:		
Liabilities assumed and notes payable issued to sellers of businesses acquired	$ 40,122	$ 4,123

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

1. BASIS OF PRESENTATION AND SUMMARY

The accompanying condensed consolidated financial statements relate to Waste Connections, Inc. and its subsidiaries (the "Company") for the three month periods ended March 31, 2022 and 2021. In the opinion of management, the accompanying balance sheets and related interim statements of net income, comprehensive income (loss), cash flows and equity include all adjustments, consisting only of normal recurring items, necessary for their fair statement in conformity with U.S. generally accepted accounting principles ("GAAP"). Preparing financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses. Examples include accounting for landfills, self-insurance accruals, income taxes, allocation of acquisition purchase price, contingent consideration accruals and asset impairments. An additional area that involves estimation is when the Company estimates the amount of potential exposure it may have with respect to litigation, claims and assessments in accordance with the accounting guidance on contingencies. Actual results for all estimates could differ materially from the estimates and assumptions that the Company uses in the preparation of its condensed consolidated financial statements.

Interim results are not necessarily indicative of results for a full year. These interim financial statements should be read in conjunction with the financial statements and notes thereto included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2021.

2. REPORTING CURRENCY

The functional currency of the Company, as the parent corporate entity, and its operating subsidiaries in the United States, is the U.S. dollar. The functional currency of the Company's Canadian operations is the Canadian dollar. The reporting currency of the Company is the U.S. dollar. The Company's consolidated Canadian dollar financial position is translated to U.S. dollars by applying the foreign currency exchange rate in effect at the consolidated balance sheet date. The Company's consolidated Canadian dollar results of operations and cash flows are translated to U.S. dollars by applying the average foreign currency exchange rate in effect during the reporting period. The resulting translation adjustments are included in other comprehensive income or loss. Gains and losses from foreign currency transactions are included in earnings for the period.

3. NEW ACCOUNTING STANDARDS

Accounting Standards Pending Adoption

Reference Rate Reform – Facilitation of the Effects of Reference Rate Reform on Financial Reporting. In March 2020, the Financial Accounting Standards Board ("FASB") issued guidance to provide temporary optional expedients and exceptions to the guidance in GAAP on contract modifications and hedge accounting to ease the financial reporting burdens related to the expected market transition from the London Interbank Offered Rate ("LIBOR") and other interbank offered rates to alternative reference rates, such as the Secured Overnight Financing Rate ("SOFR"). One-week and two-month U.S. dollar LIBOR settings as well as all non-U.S. dollar LIBOR settings stopped being published on December 31, 2021, while the remaining U.S. dollar LIBOR settings will be discontinued on June 30, 2023. Under the new guidance, entities can elect not to apply certain modification accounting requirements to contracts affected by reference rate reform, if certain criteria are met. An entity that makes this election would not have to remeasure the contracts at the modification date or reassess a previous accounting determination. Under the guidance, entities can also elect various optional expedients that would allow them to continue applying hedge accounting for hedging relationships affected by reference rate reform, if certain criteria are met.

The guidance was effective upon issuance. The guidance on contract modifications was applied prospectively from March 12, 2020. The guidance on hedging is applied to eligible hedging relationships existing as of the beginning of the interim period that includes the effective date and to new eligible hedging relationships entered into after the beginning of that interim period. The relief is temporary and generally cannot be applied to contract modifications that occur after December 31, 2022 or hedging relationships entered into or evaluated after that date. However, certain optional expedients can be applied to hedging relationships evaluated in periods after December 31, 2022. The Company is currently assessing the potential impact of implementing this new guidance on its consolidated financial statements. The Company had a combined $1,474,500 of U.S. LIBOR based loans as of March 31, 2022. The Company estimates that if the reference rate for these loans had transitioned from LIBOR to SOFR as of March 31, 2022, the impact to annual interest expense would have been immaterial. This relief is expected to permit the Company to maintain cash flow hedge accounting as described in Note 11.

(DOLLAR AMOUNTS IN THOUSANDS OF U.S. DOLLARS, EXCEPT PER SHARE, PER TON AND PER GALLON AMOUNTS)

4. REVENUE

The Company's operations primarily consist of providing non-hazardous waste collection, transfer, disposal and recycling services, non-hazardous oil and natural gas exploration and production ("E&P") waste treatment, recovery and disposal services and intermodal services. The following table disaggregates the Company's revenues by service line for the periods indicated:

	Three Months Ended March 31,	
	2022	2021
Commercial	$ 499,676	$ 426,395
Residential	440,288	400,819
Industrial and construction roll off	259,488	209,258
Total collection	1,199,452	1,036,472
Landfill	299,765	271,936
Transfer	217,957	189,323
Recycling	63,094	32,448
E&P	43,555	28,012
Intermodal and other	45,693	35,634
Intercompany	(223,261)	(197,883)
Total	$ 1,646,255	$ 1,395,942

The factors that impact the timing and amount of revenue recognized for each service line may vary based on the nature of the service performed. Generally, the Company recognizes revenue at the time it performs a service. In the event that the Company bills for services in advance of performance, it recognizes deferred revenue for the amount billed and subsequently recognizes revenue at the time the service is provided. Substantially all of the deferred revenue recorded as of December 31, 2021 was recognized as revenue during the three months ended March 31, 2022 when the service was performed.

See Note 10 for additional information regarding revenue by reportable segment.

Contract Acquisition Costs

The incremental direct costs of obtaining a contract, which consist of sales incentives, are recognized as Other assets in the Company's Condensed Consolidated Balance Sheet, and are amortized to Selling, general and administrative expense over the estimated life of the relevant customer relationship, which ranges from one to five years. The Company recognizes the incremental costs of obtaining a contract as an expense when incurred if the amortization period of the asset that the entity would have recognized is one year or less. The Company had $19,627 and $18,954 of deferred sales incentives at March 31, 2022 and December 31, 2021, respectively.

(DOLLAR AMOUNTS IN THOUSANDS OF U.S. DOLLARS, EXCEPT PER SHARE, PER TON AND PER GALLON AMOUNTS)

5. ACCOUNTS RECEIVABLE

Accounts receivable are recorded when billed or accrued and represent claims against third parties that will be settled in cash. The carrying value of the Company's receivables, net of the allowance for credit losses, represents their estimated net realizable value.

The allowance for credit losses is based on management's assessment of the collectability of assets pooled together with similar risk characteristics. The Company monitors the collectability of its trade receivables as one overall pool due to all trade receivables having similar risk characteristics. The Company estimates its allowance for credit losses based on historical collection trends, the age of outstanding receivables, geographical location of the customer, existing economic conditions and reasonable forecasts. If events or changes in circumstances indicate that specific receivable balances may be impaired, further consideration is given to the collectability of those balances and the allowance is adjusted accordingly. Past-due receivable balances are written off when the Company's internal collection efforts have been unsuccessful in collecting the amount due.

The following is a rollforward of the Company's allowance for credit losses for the periods indicated:

	Three Months Ended March 31,	
	2022	**2021**
Beginning balance	$ 18,480	$ 19,380
Current period provision for expected credit losses	3,022	1,915
Write-offs charged against the allowance	(3,435)	(3,501)
Recoveries collected	1,272	1,153
Impact of changes in foreign currency	22	23
Ending balance	$ 19,361	$ 18,970

6. LANDFILL ACCOUNTING

At March 31, 2022, the Company's landfills consisted of 84 owned landfills, five landfills operated under life-of-site operating agreements and five landfills operated under limited-term operating agreements. The Company's landfills had site costs with a net book value of $2,688,673 at March 31, 2022. For the Company's landfills operated under limited-term operating agreements and life-of-site operating agreements, the owner of the property (generally a municipality) usually owns the permit and the Company operates the landfill for a contracted term. Where the contracted term is not the life of the landfill, the property owner is generally responsible for final capping, closure and post-closure obligations. The Company is responsible for all final capping, closure and post-closure liabilities at the landfills it operates under life-of-site operating agreements.

The Company's internal and third-party engineers perform surveys at least annually to estimate the remaining disposal capacity at its landfills. Many of the Company's existing landfills have the potential for expanded disposal capacity beyond the amount currently permitted. The Company's landfill depletion rates are based on the remaining disposal capacity, considering both permitted and probable expansion airspace, at the landfills it owns and landfills it operates, but does not own, under life-of-site agreements. The Company's landfill depletion rate is based on the term of the operating agreement at its operated landfill that has capitalized expenditures. Expansion airspace consists of additional disposal capacity being pursued through means of an expansion that has not yet been permitted. Expansion airspace that meets certain criteria is included in the estimate of total landfill airspace.

Based on remaining permitted capacity as of March 31, 2022, and projected annual disposal volumes, the average remaining landfill life for the Company's owned landfills and landfills operated under life-of-site operating agreements is estimated to be approximately 29 years. As of March 31, 2022, the Company is seeking to expand permitted capacity at nine of its owned landfills and three landfills that it operates under life-of-site operating agreements, and considers the achievement of these expansions to be probable. Although the Company cannot be certain that all future expansions will be permitted as designed, the average remaining life, when considering remaining permitted capacity, probable expansion capacity and projected annual disposal volume, of the Company's owned landfills and landfills operated under life-of-site operating agreements is approximately 33 years. The estimated remaining lives of the Company's owned landfills and landfills operated under life-of-site operating agreements range from 1 to 330 years, with approximately 90% of the projected annual disposal volume from landfills with remaining lives of less than 70 years.

During the three months ended March 31, 2022 and 2021, the Company expensed $53,826 and $46,137, respectively, or an average of $4.90 and $4.53 per ton consumed, respectively, related to landfill depletion at owned landfills and landfills operated under life-of-site agreements.

The Company reserves for estimated final capping, closure and post-closure maintenance obligations at the landfills it owns and landfills it operates under life-of-site operating agreements. The Company calculates the net present value of its final capping, closure and post-closure liabilities by estimating the total obligation in current dollars, inflating the obligation based upon the expected date of the expenditure and discounting the inflated total to its present value using a credit-adjusted risk-free rate. Any changes in expectations that result in an upward revision to the estimated undiscounted cash flows are treated as a new liability and are inflated and discounted at rates reflecting current market conditions. Any changes in expectations that result in a downward revision (or no revision) to the estimated undiscounted cash flows result in a liability that is inflated and discounted at rates reflecting the market conditions at the time the cash flows were originally estimated. This policy results in the Company's final capping, closure and post-closure liabilities being recorded in "layers." The Company's discount rate assumption for purposes of computing 2022 and 2021 "layers" for final capping, closure and post-closure obligations was 3.25% for both years, which reflects the Company's long-term credit adjusted risk free rate as of the end of 2021 and 2020. The Company's long-term inflation rate assumption is 2.25% for the years ending December 31, 2022 and 2021. The resulting final capping, closure and post-closure obligations are recorded on the Condensed Consolidated Balance Sheet along with an offsetting addition to site costs which is amortized to depletion expense as the remaining landfill airspace is consumed. Interest is accreted on the recorded liability using the corresponding discount rate. During the three months ended March 31, 2022 and 2021, the Company expensed $4,050 and $3,655, respectively, or an average of $0.37 and $0.36 per ton consumed, respectively, related to final capping, closure and post-closure accretion expense.

(DOLLAR AMOUNTS IN THOUSANDS OF U.S. DOLLARS, EXCEPT PER SHARE, PER TON AND PER GALLON AMOUNTS)

The following is a reconciliation of the Company's final capping, closure and post-closure liability balance from December 31, 2021 to March 31, 2022:

Final capping, closure and post-closure liability at December 31, 2021	$ 302,537
Liability adjustments	21,568
Accretion expense associated with landfill obligations	4,050
Closure payments	(3,458)
Assumption of closure liabilities from acquisitions	630
Disposition of closure liabilities from divested operations	(916)
Foreign currency translation adjustment	434
Final capping, closure and post-closure liability at March 31, 2022	$ 324,845

Liability adjustments of $21,568 for the three months ended March 31, 2022, represent non-cash changes to final capping, closure and post-closure liabilities and are recorded on the Condensed Consolidated Balance Sheets along with an offsetting addition to site costs, which is amortized to depletion expense as the remaining landfill airspace is consumed. The final capping, closure and post-closure liability is included in Other long-term liabilities in the Condensed Consolidated Balance Sheets. The Company performs its annual review of its cost and capacity estimates in the first quarter of each year.

At March 31, 2022 and December 31, 2021, $7,284 and $12,609, respectively, of the Company's restricted cash balance and $56,711 and $56,289, respectively, of the Company's restricted investments balance was for purposes of securing its performance of future final capping, closure and post-closure obligations.

7. ACQUISITIONS

The Company acquired four individually immaterial non-hazardous solid waste collection, transfer and recycling businesses during the three months ended March 31, 2022. The total acquisition-related costs incurred during the three months ended March 31, 2022 for these acquisitions were $4,540. These expenses are included in Selling, general and administrative expenses in the Company's Condensed Consolidated Statements of Net Income.

The Company acquired one individually immaterial non-hazardous solid waste collection business during the three months ended March 31, 2021. The total acquisition-related costs incurred during the three months ended March 31, 2021 for this acquisition were $526. These expenses are included in Selling, general and administrative expenses in the Company's Condensed Consolidated Statements of Net Income.

The results of operations of the acquired businesses have been included in the Company's Condensed Consolidated Financial Statements from their respective acquisition dates. The Company expects these acquired businesses to contribute towards the achievement of the Company's strategy to expand through acquisitions. Goodwill acquired is attributable to the synergies and ancillary growth opportunities expected to arise after the Company's acquisition of these businesses.

Goodwill acquired during the three months ended March 31, 2022 and 2021, totaling $80,455 and $6,091, respectively, is expected to be deductible for tax purposes.

The fair value of acquired working capital related to 19 individually immaterial acquisitions completed during the twelve months ended March 31, 2022, is provisional pending receipt of information from the acquirees to support the fair value of the assets acquired and liabilities assumed. Any adjustments recorded relating to finalizing the working capital for these 19 acquisitions are not expected to be material to the Company's financial position.

(DOLLAR AMOUNTS IN THOUSANDS OF U.S. DOLLARS, EXCEPT PER SHARE, PER TON AND PER GALLON AMOUNTS)

8. INTANGIBLE ASSETS, NET

Intangible assets, exclusive of goodwill, consisted of the following at March 31, 2022:

	Gross Carrying Amount	Accumulated Amortization	Accumulated Impairment Loss	Net Carrying Amount
Finite-lived intangible assets:				
Long-term franchise agreements and contracts	$ 710,898	$ (276,120)	$ —	$ 434,778
Customer lists	751,518	(471,635)	—	279,883
Permits and other	573,703	(100,361)	—	473,342
	2,036,119	(848,116)	—	1,188,003
Indefinite-lived intangible assets:				
Solid waste collection and transportation permits	181,613	—	—	181,613
E&P facility permits	59,855	—	(40,784)	19,071
	241,468	—	(40,784)	200,684
Intangible assets, exclusive of goodwill	$ 2,277,587	$ (848,116)	$ (40,784)	$ 1,388,687

The weighted-average amortization period of long-term franchise agreements and contracts acquired during the three months ended March 31, 2022 was 16.1 years. The weighted-average amortization period of customer lists acquired during the three months ended March 31, 2022 was 11.2 years. The weighted-average amortization period of finite-lived permits and other acquired during the three months ended March 31, 2022 was 10.0 years.

Intangible assets, exclusive of goodwill, consisted of the following at December 31, 2021:

	Gross Carrying Amount	Accumulated Amortization	Accumulated Impairment Loss	Net Carrying Amount
Finite-lived intangible assets:				
Long-term franchise agreements and contracts	$ 724,128	$ (278,827)	$ —	$ 445,301
Customer lists	711,047	(450,109)	—	260,938
Permits and other	538,481	(94,807)	—	443,674
	1,973,656	(823,743)	—	1,149,913
Indefinite-lived intangible assets:				
Solid waste collection and transportation permits	181,613	—	—	181,613
E&P facility permits	59,855	—	(40,784)	19,071
	241,468	—	(40,784)	200,684
Intangible assets, exclusive of goodwill	$ 2,215,124	$ (823,743)	$ (40,784)	$ 1,350,597

Estimated future amortization expense for the next five years relating to finite-lived intangible assets is as follows:

For the year ending December 31, 2022	$ 148,896
For the year ending December 31, 2023	$ 129,986
For the year ending December 31, 2024	$ 113,391
For the year ending December 31, 2025	$ 97,584
For the year ending December 31, 2026	$ 82,804

(DOLLAR AMOUNTS IN THOUSANDS OF U.S. DOLLARS, EXCEPT PER SHARE, PER TON AND PER GALLON AMOUNTS)

9. LONG-TERM DEBT

The following table presents the Company's long-term debt as of March 31, 2022 and December 31, 2021:

	March 31, 2022	December 31, 2021
Revolver under Credit Agreement, bearing interest ranging from 1.46% to 3.50% [a]	$ 1,086,561	$ 803,944
Term loan under Credit Agreement, bearing interest at 1.46% [a]	650,000	650,000
4.25% Senior Notes due 2028	500,000	500,000
3.50% Senior Notes due 2029	500,000	500,000
2.60% Senior Notes due 2030	600,000	600,000
2.20% Senior Notes due 2032	650,000	650,000
3.20% Senior Notes due 2032	500,000	—
3.05% Senior Notes due 2050	500,000	500,000
2.95% Senior Notes due 2052	850,000	850,000
Notes payable to sellers and other third parties, bearing interest ranging from 2.42% to 10.35%, principal and interest payments due periodically with due dates ranging from 2022 to 2036 [a]	58,359	37,508
Finance leases, bearing interest at 1.89% with lease expiration dates ranging from 2026 to 2027 [a]	10,006	10,519
	5,904,926	5,101,971
Less – current portion	(28,070)	(6,020)
Less – unamortized debt discount and issuance costs	(59,215)	(55,451)
	$ 5,817,641	$ 5,040,500

(a) Interest rates represent the interest rates in effect at March 31, 2022.

(DOLLAR AMOUNTS IN THOUSANDS OF U.S. DOLLARS, EXCEPT PER SHARE, PER TON AND PER GALLON AMOUNTS)

Credit Agreement

Details of the Credit Agreement are as follows:

	March 31, 2022	December 31, 2021
Revolver under Credit Agreement		
Available	$ 718,720	$ 933,775
Letters of credit outstanding	$ 44,719	$ 112,281
Total amount drawn, as follows:	$ 1,086,561	$ 803,944
Amount drawn - U.S. LIBOR rate loan	$ 824,500	$ 631,000
Interest rate applicable - U.S. LIBOR rate loan	1.46 %	1.10 %
Amount drawn - U.S. base rate loan	$ 100,000	$ 158,000
Interest rate applicable - U.S. base rate loan	3.50 %	3.25
Amount drawn - U.S. swingline loan	—	11,000
Interest rate applicable - U.S. swingline loan	—	3.25
Amount drawn – Canadian bankers’ acceptance	$ 162,061	$ 3,944
Interest rate applicable – Canadian bankers’ acceptance	1.96 %	1.45 %
Commitment – rate applicable	0.09 %	0.09 %
Term loan under Credit Agreement		
Amount drawn – U.S. based LIBOR loan	$ 650,000	$ 650,000
Interest rate applicable – U.S. based LIBOR loan	1.46 %	1.10 %

In addition to the $44,719 of letters of credit at March 31, 2022 issued and outstanding under the Credit Agreement, the Company has issued and outstanding letters of credit totaling $81,569 under a facility other than the Credit Agreement.

Senior Notes

On March 9, 2022, the Company completed an underwritten public offering of $500,000 aggregate principal amount of 3.20% Senior Notes due 2032 (the “New 2032 Senior Notes”). The Company issued the New 2032 Senior Notes under the Indenture, dated as of November 16, 2018 (the “Base Indenture”), by and between the Company and U.S. Bank Trust Company, National Association, as successor in interest to U.S. Bank National Association, as trustee (the “Trustee”), as supplemented by the Sixth Supplemental Indenture, dated as of March 9, 2022 (the “Supplemental Indenture” and the Base Indenture as so supplemented, the “Indenture”).

The Company will pay interest on the New 2032 Senior Notes semi-annually in arrears. The New 2032 Senior Notes will mature on June 1, 2032. The New 2032 Senior Notes are the Company’s senior unsecured obligations, ranking equally in right of payment with its other existing and future unsubordinated debt and senior to any of its future subordinated debt. The New 2032 Senior Notes are not guaranteed by any of the Company’s subsidiaries.

The Company may, prior to March 1, 2032 (three months before the maturity date) (the “Par Call Date”), redeem some or all of the New 2032 Senior Notes, at any time and from time to time, at a redemption price equal to the greater of 100% of the principal amount of the New 2032 Senior Notes redeemed, or the sum of the present values of the remaining scheduled payments of principal and interest on the New 2032 Senior Notes redeemed discounted to the redemption date (assuming the New 2032 Senior Notes matured on the Par Call Date), plus, in either case, accrued and unpaid interest thereon to the redemption date. Commencing on March 1, 2032 (three months before the maturity date), the Company may redeem some or all of the New 2032 Senior Notes, at any time and from time to time, at a redemption price equal to the principal amount of the New 2032 Senior Notes being redeemed plus accrued and unpaid interest thereon to the redemption date.

Under certain circumstances, the Company may become obligated to pay additional amounts (the "Additional Amounts") with respect to the New 2032 Senior Notes to ensure that the net amounts received by each holder of the New 2032 Senior Notes will not be less than the amount such holder would have received if withholding taxes or deductions were not incurred on a payment under or with respect to the New 2032 Senior Notes. If such payment of Additional Amounts are a result of a change in the laws or regulations, including a change in any official position, the introduction of an official position or a holding by a court of competent jurisdiction, of any jurisdiction from or through which payment is made by or on behalf of the New 2032 Senior Notes having power to tax, and the Company cannot avoid such payments of Additional Amounts through reasonable measures, then the Company may redeem the New 2032 Senior Notes then outstanding at a redemption price equal to 100% of the principal amount thereof, plus accrued and unpaid interest, if any, to, but excluding, the redemption date (subject to the right of holders of record on the relevant record date to receive interest due on an interest payment date that is on or prior to the redemption date).

If the Company experiences certain kinds of changes of control, each holder of the New 2032 Senior Notes may require the Company to repurchase all or a portion of the New 2032 Senior Notes for cash at a price equal to 101% of the aggregate principal amount of such New 2032 Senior Notes, plus any accrued and unpaid interest, if any, to, but excluding the purchase date.

The covenants in the Indenture include limitations on liens, sale-leaseback transactions and mergers and sales of all or substantially all of the Company's assets. The Indenture also includes customary events of default with respect to the New 2032 Senior Notes. As of March 31, 2022, the Company was in compliance with all applicable covenants in the Indenture.

Upon an event of default, the principal of and accrued and unpaid interest on all the New 2032 Senior Notes may be declared to be due and payable by the Trustee or the holders of not less than 25% in principal amount of the outstanding New 2032 Senior Notes. Upon such a declaration, such principal and accrued interest on all of the New 2032 Senior Notes will be due and payable immediately. In the case of an event of default resulting from certain events of bankruptcy, insolvency or reorganization, the principal (or such specified amount) of and accrued and unpaid interest, if any, on all outstanding New 2032 Senior Notes will become and be immediately due and payable without any declaration or other act on the part of the Trustee or any holder of the New 2032 Senior Notes. Under certain circumstances, the holders of a majority in principal amount of the outstanding New 2032 Senior Notes may rescind any such acceleration with respect to the New 2032 Senior Notes and its consequences.

10. SEGMENT REPORTING

The Company's revenues are generated from the collection, transfer, recycling and disposal of non-hazardous solid waste and the treatment, recovery and disposal of non-hazardous E&P waste. No single contract or customer accounted for more than 10% of the Company's total revenues at the consolidated or reportable segment level during the periods presented.

The Company manages its operations through the following five geographic solid waste operating segments: Eastern, Southern, Western, Central and Canada. The Company's five geographic solid waste operating segments comprise its reportable segments. Each operating segment is responsible for managing several vertically integrated operations, which are comprised of districts.

(DOLLAR AMOUNTS IN THOUSANDS OF U.S. DOLLARS, EXCEPT PER SHARE, PER TON AND PER GALLON AMOUNTS)

The Company's Chief Operating Decision Maker evaluates operating segment profitability and determines resource allocations based on several factors, of which the primary financial measure is segment EBITDA. The Company defines segment EBITDA as earnings before interest, taxes, depreciation, amortization, impairments and other operating items, and other income (expense). Segment EBITDA is not a measure of operating income, operating performance or liquidity under GAAP and may not be comparable to similarly titled measures reported by other companies. The Company's management uses segment EBITDA in the evaluation of segment operating performance as it is a profit measure that is generally within the control of the operating segments. A reconciliation of segment EBITDA to Income before income tax provision is included at the end of this Note 10.

Summarized financial information concerning the Company's reportable segments for the three months ended March 31, 2022 and 2021, is shown in the following tables:

Three Months Ended March 31, 2022	Revenue	Intercompany Revenue[(b)]	Reported Revenue	Segment EBITDA[(c)]
Eastern	$ 499,255	$ (77,658)	$ 421,597	$ 107,788
Southern	431,348	(44,284)	387,064	108,610
Western	389,628	(42,918)	346,710	104,747
Central	309,070	(32,893)	276,177	92,036
Canada	240,215	(25,508)	214,707	84,844
Corporate[(a)]	—	—	—	(4,702)
	$ 1,869,516	$ (223,261)	$ 1,646,255	$ 493,323

Three Months Ended March 31, 2021	Revenue	Intercompany Revenue[(b)]	Reported Revenue	Segment EBITDA[(c)]
Eastern	$ 398,830	$ (62,369)	$ 336,461	$ 89,121
Southern	382,687	(44,526)	338,161	93,424
Western	332,820	(35,816)	297,004	93,825
Central	267,702	(32,316)	235,386	79,040
Canada	211,786	(22,856)	188,930	73,940
Corporate[(a)]	—	—	—	(750)
	$ 1,593,825	$ (197,883)	$ 1,395,942	$ 428,600

(a) The majority of Corporate expenses are allocated to the five operating segments. Direct acquisition expenses, expenses associated with common shares held in the deferred compensation plan exchanged for other investment options and share-based compensation expenses associated with Progressive Waste share-based grants outstanding at June 1, 2016 that were continued by the Company are not allocated to the five operating segments and comprise the net EBITDA of the Company's Corporate segment for the periods presented.

(b) Intercompany revenues reflect each segment's total intercompany sales, including intercompany sales within a segment and between segments. Transactions within and between segments are generally made on a basis intended to reflect the market value of the service.

(c) For those items included in the determination of segment EBITDA, the accounting policies of the segments are the same as those described in the Company's most recent Annual Report on Form 10-K.

(DOLLAR AMOUNTS IN THOUSANDS OF U.S. DOLLARS, EXCEPT PER SHARE, PER TON AND PER GALLON AMOUNTS)

Total assets for each of the Company's reportable segments at March 31, 2022 and December 31, 2021, were as follows:

	March 31, 2022	December 31, 2021
Eastern	$ 3,842,701	$ 3,652,311
Southern	3,481,510	3,513,355
Western	2,256,309	2,260,222
Central	2,326,786	2,332,564
Canada	2,739,617	2,513,608
Corporate	767,439	427,864
Total Assets	$ 15,414,362	$ 14,699,924

The following tables show changes in goodwill during the three months ended March 31, 2022 and 2021, by reportable segment:

	Eastern	Southern	Western	Central	Canada	Total
Balance as of December 31, 2021	$ 1,607,723	$ 1,588,467	$ 539,732	$ 892,209	$ 1,559,512	$ 6,187,643
Goodwill acquired	85,868	—	—	2,795	123,384	212,047
Goodwill acquisition adjustments	—	(97)	2,651	—	—	2,554
Goodwill divested	—	—	—	—	—	—
Impact of changes in foreign currency	—	—	—	—	25,519	25,519
Balance as of March 31, 2022	$ 1,693,591	$ 1,588,370	$ 542,383	$ 895,004	$ 1,708,415	$ 6,427,763

	Eastern	Southern	Western	Central	Canada	Total
Balance as of December 31, 2020	$ 1,374,577	$ 1,532,215	$ 442,862	$ 824,204	$ 1,552,792	$ 5,726,650
Goodwill acquired	—	—	2,289	—	—	2,289
Goodwill acquisition adjustments	1,408	(4)	—	4,385	(2)	5,787
Impact of changes in foreign currency	—	—	—	—	19,375	19,375
Balance as of March 31, 2021	$ 1,375,985	$ 1,532,211	$ 445,151	$ 828,589	$ 1,572,165	$ 5,754,101

(DOLLAR AMOUNTS IN THOUSANDS OF U.S. DOLLARS, EXCEPT PER SHARE, PER TON AND PER GALLON AMOUNTS)

A reconciliation of the Company's primary measure of segment profitability (segment EBITDA) to Income before income tax provision in the Condensed Consolidated Statements of Net Income is as follows:

	Three Months Ended March 31, 2022	Three Months Ended March 31, 2021
Eastern segment EBITDA	$ 107,788	$ 89,121
Southern segment EBITDA	108,610	93,424
Western segment EBITDA	104,747	93,825
Central segment EBITDA	92,036	79,040
Canada segment EBITDA	84,844	73,940
Subtotal reportable segments	498,025	429,350
Unallocated corporate overhead	(4,702)	(750)
Depreciation	(179,950)	(157,402)
Amortization of intangibles	(37,635)	(32,192)
Impairments and other operating items	(1,878)	(634)
Interest expense	(41,324)	(42,425)
Interest income	137	1,103
Other income (expense), net	(3,466)	3,548
Income before income tax provision	$ 229,207	$ 200,598

11. DERIVATIVE FINANCIAL INSTRUMENTS

The Company recognizes all derivatives on the Condensed Consolidated Balance Sheets at fair value. All of the Company's derivatives have been designated as cash flow hedges; therefore, the gain or loss on the derivatives will be recognized in accumulated other comprehensive income (loss) ("AOCIL") and reclassified into earnings in the same period during which the hedged transaction affects earnings and is presented in the same income statement line item as the earnings effect of the hedged item. The Company classifies cash inflows and outflows from derivatives within operating activities on the Condensed Consolidated Statements of Cash Flows.

One of the Company's objectives for utilizing derivative instruments is to reduce its exposure to fluctuations in cash flows due to changes in the variable interest rates of certain borrowings under the Credit Agreement. The Company's strategy to achieve that objective involves entering into interest rate swaps. The interest rate swaps outstanding at March 31, 2022 were specifically designated to the Credit Agreement and accounted for as cash flow hedges.

At March 31, 2022, the Company's derivative instruments included six interest rate swap agreements as follows:

Date Entered	Notional Amount	Fixed Interest Rate Paid*	Variable Interest Rate Received	Effective Date	Expiration Date
August 2017	$ 100,000	1.900 %	1-month LIBOR	July 2019	July 2022
August 2017	$ 200,000	2.200 %	1-month LIBOR	October 2020	October 2025
August 2017	$ 150,000	1.950 %	1-month LIBOR	February 2020	February 2023
June 2018	$ 200,000	2.925 %	1-month LIBOR	October 2020	October 2025
June 2018	$ 200,000	2.925 %	1-month LIBOR	October 2020	October 2025
December 2018	$ 200,000	2.850 %	1-month LIBOR	July 2022	July 2027

* Plus applicable margin.

(DOLLAR AMOUNTS IN THOUSANDS OF U.S. DOLLARS, EXCEPT PER SHARE, PER TON AND PER GALLON AMOUNTS)

The fair values of derivative instruments designated as cash flow hedges as of March 31, 2022, were as follows:

Derivatives Designated as Cash Flow Hedges	Asset Derivatives		Liability Derivatives	
	Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value
Interest rate swaps	Other assets, net	$ 7,315	Accrued liabilities[(a)]	$ (6,172)
			Other long-term liabilities	(2,774)
Total derivatives designated as cash flow hedges		$ 7,315		$ (8,946)

(a) Represents the estimated amount of the existing unrealized losses on interest rate swaps as of March 31, 2022 (based on the interest rate yield curve at that date), included in AOCIL expected to be reclassified into pre-tax earnings within the next 12 months. The actual amounts reclassified into earnings are dependent on future movements in interest rates.

The fair values of derivative instruments designated as cash flow hedges as of December 31, 2021, were as follows:

Derivatives Designated as Cash Flow Hedges	Asset Derivatives		Liability Derivatives	
	Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value
Interest rate swaps	Prepaid expenses and other current assets	$ —	Accrued liabilities	$ (18,675)
			Other long-term liabilities	(32,406)
Total derivatives designated as cash flow hedges		$ —		$ (51,081)

The following table summarizes the impact of the Company’s cash flow hedges on the results of operations, comprehensive income (loss) and AOCIL for the three months ended March 31, 2022 and 2021:

Derivatives Designated as Cash Flow Hedges	Amount of Gain or (Loss) Recognized as AOCIL on Derivatives, Net of Tax [(a)]		Statement of Net Income Classification	Amount of (Gain) or Loss Reclassified from AOCIL into Earnings, Net of Tax [(b)]	
	Three Months Ended March 31,			Three Months Ended March 31,	
	2022	2021		2022	2021
Interest rate swaps	$ 32,854	$ 15,243	Interest expense	$ 3,491	$ 3,525

(a) In accordance with the derivatives and hedging guidance, the changes in fair values of interest rate swaps have been recorded in equity as a component of AOCIL. As the critical terms of the interest rate swaps match the underlying debt being hedged, all unrealized changes in fair value are recorded in AOCIL.

(b) Amounts reclassified from AOCIL into earnings related to realized gains and losses on interest rate swaps are recognized when interest payments or receipts occur related to the swap contracts, which correspond to when interest payments are made on the Company’s hedged debt.

See Note 15 for further discussion on the impact of the Company’s hedge accounting to its consolidated comprehensive income (loss) and AOCIL.

12. FAIR VALUE OF FINANCIAL INSTRUMENTS

The Company’s financial instruments consist primarily of cash and equivalents, trade receivables, restricted cash and investments, trade payables, debt instruments, contingent consideration obligations and interest rate swaps. As of March 31, 2022 and December 31, 2021, the carrying values of cash and equivalents, trade receivables, restricted cash and investments, trade payables and contingent consideration are considered to be representative of their respective fair values. The carrying values of the Company’s debt instruments, excluding certain notes as listed in the table below, approximate their fair values as of March 31, 2022 and December 31, 2021, based on current borrowing rates, current remaining average life to maturity and borrower credit quality for similar types of borrowing arrangements, and are classified as Level 2 within the fair value hierarchy. The carrying values and fair values of the Company's debt instruments where the carrying values do not approximate their fair values as of March 31, 2022 and December 31, 2021, are as follows:

(DOLLAR AMOUNTS IN THOUSANDS OF U.S. DOLLARS, EXCEPT PER SHARE, PER TON AND PER GALLON AMOUNTS)

	Carrying Value at		Fair Value [a] at	
	March 31, 2022	December 31, 2021	March 31, 2022	December 31, 2021
4.25% Senior Notes due 2028	$ 500,000	$ 500,000	$ 519,200	$ 561,350
3.50% Senior Notes due 2029	$ 500,000	$ 500,000	$ 502,250	$ 539,500
2.60% Senior Notes due 2030	$ 600,000	$ 600,000	$ 565,560	$ 610,440
2.20% Senior Notes due 2032	$ 650,000	$ 650,000	$ 581,490	$ 637,065
3.20% Senior Notes due 2032	$ 500,000	$ —	$ 487,150	$ —
3.05% Senior Notes due 2050	$ 500,000	$ 500,000	$ 434,550	$ 496,350
2.95% Senior Notes due 2052	$ 850,000	$ 850,000	$ 722,330	$ 828,580

*Senior Notes are classified as Level 2 within the fair value hierarchy. Fair value inputs include third-party calculations of the market interest rate of notes with similar ratings in similar industries over the remaining note terms.

For details on the fair value of the Company's interest rate swaps, restricted cash and investments and contingent consideration, refer to Note 14.

13. NET INCOME PER SHARE INFORMATION

The following table sets forth the calculation of the numerator and denominator used in the computation of basic and diluted net income per common share attributable to the Company's shareholders for the three months ended March 31, 2022 and 2021:

	Three Months Ended March 31,	
	2022	2021
Numerator:		
Net income attributable to Waste Connections for basic and diluted earnings per share	$ 180,324	$ 160,309
Denominator:		
Basic shares outstanding	258,946,933	262,697,487
Dilutive effect of equity-based awards	614,050	459,168
Diluted shares outstanding	259,560,983	263,156,655

14. FAIR VALUE MEASUREMENTS

The Company uses a three-tier fair value hierarchy to classify and disclose all assets and liabilities measured at fair value on a 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, quoted prices in markets that are not active, model-based valuation techniques for which all significant assumptions are observable in the market, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities; and Level 3, defined as unobservable inputs that are not corroborated by market data.

(DOLLAR AMOUNTS IN THOUSANDS OF U.S. DOLLARS, EXCEPT PER SHARE, PER TON AND PER GALLON AMOUNTS)

The Company's financial assets and liabilities recorded at fair value on a recurring basis include derivative instruments and restricted cash and investments. At March 31, 2022 and December 31, 2021, the Company's derivative instruments included pay-fixed, receive-variable interest rate swaps. The Company's interest rate swaps are recorded at their estimated fair values based on quotes received from financial institutions that trade these contracts. The Company verifies the reasonableness of these quotes using similar quotes from another financial institution as of each date for which financial statements are prepared. For the Company's interest rate swaps, the Company also considers the Company's creditworthiness in its determination of the fair value measurement of these instruments in a net liability position and the counterparties' creditworthiness in its determination of the fair value measurement of these instruments in a net asset position. The Company's restricted cash is valued at quoted market prices in active markets for identical assets, which the Company receives from the financial institutions that hold such investments on its behalf. The Company's restricted cash measured at fair value is invested primarily in money market accounts, bank time deposits and U.S. government and agency securities. The Company's restricted investments are valued at quoted market prices in active markets for similar assets, which the Company receives from the financial institutions that hold such investments on its behalf. The Company's restricted investments measured at fair value are invested primarily in money market accounts, bank time deposits, U.S. government and agency securities and Canadian bankers' acceptance notes.

The Company's assets and liabilities measured at fair value on a recurring basis at March 31, 2022 and December 31, 2021, were as follows:

	Fair Value Measurement at March 31, 2022 Using			
	Total	**Quoted Prices in Active Markets for Identical Assets (Level 1)**	**Significant Other Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**
Interest rate swap derivative instruments – net liability position	$ (1,631)	$ —	$ (1,631)	$ —
Restricted cash	$ 71,867	$ 71,867	$ —	$ —
Restricted investments	$ 58,533	$ —	$ 58,533	$ —
Contingent consideration	$ (96,038)	$ —	$ —	$ (96,038)

	Fair Value Measurement at December 31, 2021 Using			
	Total	**Quoted Prices in Active Markets for Identical Assets (Level 1)**	**Significant Other Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**
Interest rate swap derivative instruments – net liability position	$ (51,081)	$ —	$ (51,081)	$ —
Restricted cash	$ 72,174	$ 72,174	$ —	$ —
Restricted investments	$ 58,797	$ —	$ 58,797	$ —
Contingent consideration	$ (94,308)	$ —	$ —	$ (94,308)

(DOLLAR AMOUNTS IN THOUSANDS OF U.S. DOLLARS, EXCEPT PER SHARE, PER TON AND PER GALLON AMOUNTS)

The following table summarizes the changes in the fair value for Level 3 liabilities related to contingent consideration for the three months ended March 31, 2022 and 2021:

	Three Months Ended March 31,	
	2022	2021
Beginning balance	$ 94,308	$ 71,736
Contingent consideration recorded at acquisition date	5,000	—
Payment of contingent consideration recorded at acquisition date	(3,571)	(4,807)
Payment of contingent consideration recorded in earnings	—	(520)
Adjustments to contingent consideration	(52)	89
Interest accretion expense	353	495
Foreign currency translation adjustment	—	(15)
Ending balance	$ 96,038	$ 66,978

15. OTHER COMPREHENSIVE INCOME (LOSS)

Other comprehensive income (loss) includes changes in the fair value of interest rate swaps that qualify for hedge accounting. The components of other comprehensive income (loss) and related tax effects for the three months ended March 31, 2022 and 2021 are as follows:

	Three Months Ended March 31, 2022		
	Gross	Tax Effect	Net of Tax
Interest rate swap amounts reclassified into interest expense	$ 4,750	$ (1,259)	$ 3,491
Changes in fair value of interest rate swaps	44,699	(11,845)	32,854
Foreign currency translation adjustment	34,429	—	34,429
	$ 83,878	$ (13,104)	$ 70,774

	Three Months Ended March 31, 2021		
	Gross	Tax Effect	Net of Tax
Interest rate swap amounts reclassified into interest expense	$ 4,796	$ (1,271)	$ 3,525
Changes in fair value of interest rate swaps	20,739	(5,496)	15,243
Foreign currency translation adjustment	28,054	—	28,054
	$ 53,589	$ (6,767)	$ 46,822

A rollforward of the amounts included in AOCIL, net of taxes, for the three months ended March 31, 2022 and 2021, is as follows:

	Interest Rate Swaps	Foreign Currency Translation Adjustment	Accumulated Other Comprehensive Income (Loss)
Balance at December 31, 2021	$ (37,544)	$ 77,128	$ 39,584
Amounts reclassified into earnings	3,491	—	3,491
Changes in fair value	32,854	—	32,854
Foreign currency translation adjustment	—	34,429	34,429
Balance at March 31, 2022	$ (1,199)	$ 111,557	$ 110,358

(DOLLAR AMOUNTS IN THOUSANDS OF U.S. DOLLARS, EXCEPT PER SHARE, PER TON AND PER GALLON AMOUNTS)

	Interest Rate Swaps	Foreign Currency Translation Adjustment	Accumulated Other Comprehensive Income (Loss)
Balance at December 31, 2020	$ (69,596)	$ 68,945	$ (651)
Amounts reclassified into earnings	3,525	—	3,525
Changes in fair value	15,243	—	15,243
Foreign currency translation adjustment	—	28,054	28,054
Balance at March 31, 2021	$ (50,828)	$ 96,999	$ 46,171

See Note 11 for further discussion on the Company's derivative instruments.

16. SHAREHOLDERS' EQUITY

Share-Based Compensation

Restricted Share Units

A summary of activity related to restricted share units ("RSUs") during the three-month period ended March 31, 2022, is presented below:

	Unvested Shares
Outstanding at December 31, 2021	861,695
Granted	408,331
Forfeited	(9,440)
Vested and issued	(312,706)
Outstanding at March 31, 2022	947,880

The weighted average grant-date fair value per share for the common shares underlying the RSUs granted during the three-month period ended March 31, 2022 was $118.68.

Recipients of the Company's RSUs who participate in the Company's Nonqualified Deferred Compensation Plan may have elected in years prior to 2015 to defer some or all of their RSUs as they vest until a specified date or dates they choose. At the end of the deferral periods, unless a qualified participant makes certain other elections, the Company issues to recipients who deferred their RSUs common shares of the Company underlying the deferred RSUs. At March 31, 2022 and 2021, the Company had 81,712 and 158,610 vested deferred RSUs outstanding, respectively.

(DOLLAR AMOUNTS IN THOUSANDS OF U.S. DOLLARS, EXCEPT PER SHARE, PER TON AND PER GALLON AMOUNTS)

Performance-Based Restricted Share Units

A summary of activity related to performance-based restricted share units ("PSUs") during the three-month period ended March 31, 2022, is presented below:

	Unvested Shares
Outstanding at December 31, 2021	392,043
Granted	95,038
Forfeited	(87,554)
Vested and issued	(57,677)
Outstanding at March 31, 2022	341,850

During the three months ended March 31, 2022, the Company's Compensation Committee granted PSUs with three-year performance-based metrics that the Company must meet before those awards may be earned, and the performance period for those grants ends on December 31, 2024. The Compensation Committee will determine the achievement of performance results and corresponding vesting of PSUs for each performance period. The weighted average grant-date fair value per share for the common shares underlying all PSUs granted during the three-month period ended March 31, 2022 was $117.94.

Deferred Share Units

A summary of activity related to deferred share units ("DSUs") during the three-month period ended March 31, 2022, is presented below:

	Vested Shares
Outstanding at December 31, 2021	24,442
Granted	2,094
Outstanding at March 31, 2022	26,536

The DSUs consist of a combination of DSU grants outstanding under the Progressive Waste share-based compensation plans that were continued by the Company following the Progressive Waste acquisition and DSUs granted by the Company since the Progressive Waste acquisition. The weighted average grant-date fair value per share for the common shares underlying the DSUs granted during the three-month period ended March 31, 2022 was $121.00.

Other Restricted Share Units

RSU grants outstanding under the Progressive Waste share-based compensation plans were continued by the Company following the Progressive Waste acquisition and allow for the issuance of shares or cash settlement to employees upon vesting. A summary of activity related to Progressive Waste RSUs during the three-month period ended March 31, 2022, is presented below:

Outstanding at December 31, 2021	63,032
Cash settled	(2,203)
Outstanding at March 31, 2022	60,829

No RSUs under the Progressive Waste share-based compensation plans were granted subsequent to June 1, 2016. All remaining RSUs were vested as of March 31, 2019.

(DOLLAR AMOUNTS IN THOUSANDS OF U.S. DOLLARS, EXCEPT PER SHARE, PER TON AND PER GALLON AMOUNTS)

Share Based Options

Share based options outstanding under the Progressive Waste share-based compensation plans were continued by the Company following the Progressive Waste acquisition and allow for the issuance of shares or cash settlement to employees upon vesting. A summary of activity related to Progressive Waste share based options during the three-month period ended March 31, 2022, is presented below:

Outstanding at December 31, 2021	45,869
Cash settled	—
Outstanding at March 31, 2022	45,869

No share based options under the Progressive Waste share-based compensation plans were granted subsequent to June 1, 2016. All outstanding share based options were vested as of December 31, 2017.

Employee Share Purchase Plan

On May 15, 2020, the Company's shareholders approved the 2020 Employee Share Purchase Plan (the "ESPP"). Under the ESPP, qualified employees may elect to have payroll deductions withheld from their eligible compensation on each payroll date in amounts equal to or greater than one percent (1%) but not in excess of ten percent (10%) of eligible compensation in order to purchase the Company's common shares under certain terms and subject to certain restrictions set forth in the ESPP. The exercise price is equal to 95% of the closing price of the Company's common shares on the last day of the relevant offering period, provided, however, that such exercise price will not be less than 85% of the volume weighted average price of the Company's common shares as reflected on the Toronto Stock Exchange (the "TSX") over the final five trading days of such offering period. The maximum number of shares that may be issued under the ESPP is 1,000,000. Under the ESPP, employees purchased 12,015 of the Company's common shares for $1,554 during the three months ended March 31, 2022.

Normal Course Issuer Bid

On July 27, 2021, the Board of Directors of the Company approved, subject to receipt of regulatory approvals, the annual renewal of the Company's normal course issuer bid (the "NCIB") to purchase up to 13,025,895 of the Company's common shares during the period of August 10, 2021 to August 9, 2022 or until such earlier time as the NCIB is completed or terminated at the option of the Company. The renewal followed the conclusion of the Company's NCIB that expired August 9, 2021. The Company received TSX approval for its annual renewal of the NCIB on August 6, 2021. Under the NCIB, the Company may make share repurchases only in the open market, including on the New York Stock Exchange (the "NYSE"), the TSX, and/or alternative Canadian trading systems, at the prevailing market price at the time of the transaction.

In accordance with TSX rules, any daily repurchases made through the TSX and alternative Canadian trading systems is limited to a maximum of 75,704 common shares, which represents 25% of the average daily trading volume on the TSX of 302,816 common shares for the period from February 1, 2021 to July 31, 2021. The TSX rules also allow the Company to purchase, once a week, a block of common shares not owned by any insiders, which may exceed such daily limit. The maximum number of shares that can be purchased per day on the NYSE will be 25% of the average daily trading volume for the four calendar weeks preceding the date of purchase, subject to certain exceptions for block purchases.

The timing and amounts of any repurchases pursuant to the NCIB will depend on many factors, including the Company's capital structure, the market price of the common shares and overall market conditions. All common shares purchased under the NCIB shall be immediately cancelled following their repurchase.

For the three months ended March 31, 2022, the Company repurchased 3,388,155 common shares pursuant to the NCIB in effect during that period at an aggregate cost of $424,999. During the three months ended March 31, 2021, the Company repurchased 666,184 common shares pursuant to the NCIB at an aggregate cost of $65,999. As of March 31, 2022, the remaining maximum number of shares available for repurchase under the current NCIB was 9,379,908.

Cash Dividend

In October 2021, the Company announced that its Board of Directors increased its regular quarterly cash dividend by $0.025, from $0.205 to $0.23 per Company common share. Cash dividends of $59,391 and $53,909 were paid during the three months ended March 31, 2022 and 2021, respectively.

17. COMMITMENTS AND CONTINGENCIES

In the normal course of its business and as a result of the extensive governmental regulation of the solid waste and E&P waste industries, the Company is subject to various judicial and administrative proceedings involving Canadian regulatory authorities as well as U.S. federal, state and local agencies. In these proceedings, an agency may subpoena the Company for records, or seek to impose fines on the Company or revoke or deny renewal of an authorization held by the Company, including an operating permit. From time to time, the Company 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, transfer stations, and E&P waste treatment, recovery and disposal operations, or alleging environmental damage or violations of the permits and licenses pursuant to which the Company operates. The Company uses $1,000 as a threshold (up from the previously required threshold of $300) for disclosing environmental matters involving potential monetary sanctions.

In addition, the Company is a party to 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 normal operation of the Company's business. Except as noted in the matters described below, as of March 31, 2022, there is no current proceeding or litigation involving the Company or its property that the Company believes could have a material adverse effect on its business, financial condition, results of operations or cash flows.

Lower Duwamish Waterway Superfund Site Allocation Process

In November 2012, the Company's subsidiary, Northwest Container Services, Inc. ("NWCS"), was named by the U.S. Environmental Protection Agency, Region 10 (the "EPA") as a potentially responsible party ("PRP"), along with more than 100 others, under the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA" or the "Superfund" law) with respect to the Lower Duwamish Waterway Superfund Site (the "LDW Site"). Listed on the National Priorities List in 2001, the LDW Site is a five-mile stretch of the Duwamish River flowing into Elliott Bay in Seattle, Washington. A group of PRPs known as the Lower Duwamish Working Group ("LDWG") and consisting of the City of Seattle, King County, the Port of Seattle, and Boeing Company conducted a Remedial Investigation/Feasibility Study for the LDW Site. On December 2, 2014, the EPA issued its Record of Decision (the "ROD") describing the selected clean-up remedy, and therein estimated that clean-up costs (in present value dollars as of November 2014) would total approximately $342,000. However, it is possible that additional costs could be incurred based upon various factors. The EPA estimates that it will take seven years to implement the clean-up. The ROD also requires ten years of monitoring following the clean-up, and provides that if clean-up goals have not been met by the end of this period, then additional clean-up activities, at additional cost, may be required at that time. Implementation of the clean-up must await additional baseline sampling throughout the LDW Site and the preparation of a remedial design for performing the clean-up. On April 27, 2016, the LDWG entered into a third amendment of its Administrative Order on Consent with the EPA (the "AOC 3") in which it agreed to perform the additional baseline sediment sampling and certain technical studies needed to prepare the actual remedial design. The LDWG and the EPA entered into a fourth amendment to the AOC in July 2018 primarily addressing development of a proposed remedy for the upper reach of the LDW Site, river mile 3 to river mile 5. At the April 24, 2019 stakeholders meeting, the LDWG projected that the remedial design for the upper reach could be completed by August 2024. In late September 2020, the EPA informed attorneys for several PRPs that the work may be completed by late 2023 or early 2024.

On August 16, 2016, the EPA sent individual letters to each of the PRPs for the LDW Site, including NWCS, stating that it expected to initiate negotiations with all PRPs in early 2018 relating to a Remedial Design/Remedial Action ("RD/RA") Consent Decree. An RD/RA Consent Decree provides for the cleanup of the entire site and is often referred to as a "global settlement." In August 2014, NWCS entered into an Alternative Dispute Resolution Memorandum of Agreement with several dozen other PRPs and a neutral allocator to conduct a confidential and non-binding allocation of certain past response costs allegedly incurred at the LDW Site as well as the anticipated future response costs associated with the clean-up. In March 2017, the PRPs provided the EPA with notice that the allocation was not scheduled to conclude until mid-2019. Later extensions pushed the allocation conclusion date first to early 2020 and then to July 2020. The EPA was informed of those changes. The allocator issued his preliminary allocation report on June 28, 2021. The allocator is currently considering comments on the preliminary report, which the parties submitted in November 2021. The allocator may issue the final allocation report sometime in the next few weeks. In July 2021, the EPA was informed of the issuance of the preliminary allocation report in a telephone conference with allocation participants. In a telephone conference with allocation participants on December 14, 2021, the EPA stated its expectation that settlement negotiations would begin in the second half of 2022. NWCS is defending itself vigorously in this confidential allocation process. At this point, the Company is not able to determine the likelihood of the allocation process being completed as intended by the participating PRPs, its specific allocation, or the likelihood of the parties then negotiating a global settlement with the EPA. Thus, NWCS cannot reasonably determine the likelihood of any outcome in this matter, including its potential liability.

On February 11, 2016, NWCS received a letter (the "Letter") from the United States Department of Commerce, National Oceanic and Atmospheric Administration ("NOAA"), describing certain investigatory activities conducted by the Elliott Bay Trustee Council (the "Council"). The Council consists of all of the natural resources trustees for the LDW Site as well as two nearby Superfund sites, the Harbor Island site and the Lockheed West site. The members of the Council include the United States, on behalf of the U.S. National Oceanic and Atmospheric Administration and the U.S. Department of the Interior, the Washington State Department of Ecology, and the Suquamish and Muckleshoot Indian Tribes (together, the "Trustees"). The Letter appears to allege that NWCS may be a potentially liable party that allegedly contributed to the release of hazardous substances that have injured natural resources at the LDW Site. Damages to natural resources are in addition to clean-up costs. The Letter, versions of which NWCS believes were sent to all or a group of the PRPs for the LDW Site, also notified its recipients of their opportunity to participate in the Trustees' development of an Assessment Plan and the performance of a Natural Resources Damages Assessment ("NRDA") in accordance with the Assessment Plan for both the LDW Site and the east and west waterways of the Harbor Island site. NWCS timely responded with correspondence to the NOAA Office of General Counsel, in which it declined the invitation at that time. NWCS does not know how other PRPs responded to the Letter, and has not received any further communication from NOAA or the Trustees. The Trustees have not responded to NWCS' letter. The Trustees released their Assessment Plan in March 2019. The Assessment Plan does not set forth a timeline for implementation. At this point, the Company is not able to determine the likelihood or amount of an assessment of natural resource damages against NWCS in connection with this matter.

Los Angeles County, California Landfill Expansion Litigation

A. Chiquita Canyon, LLC Lawsuit Against Los Angeles County

In October 2004, the Company's subsidiary, Chiquita Canyon, LLC ("CCL"), then under prior ownership, filed an application (the "Application") with the County of Los Angeles (the "County") Department of Regional Planning ("DRP") for a conditional use permit (the "CUP") to authorize the continued operation and expansion of the Chiquita Canyon Landfill (the "Landfill"). The Landfill has operated since 1972, and as a regional landfill, accepted approximately two and a half million tons of materials for disposal and beneficial use in 2021. The Application requested expansion of the existing waste footprint on CCL's contiguous property, an increase in maximum elevation, creation of a new entrance and new support facilities, construction of a facility for the County or another third-party operator to host household hazardous waste collection events, designation of an area for mixed organics/composting, and other modifications.

After many years of reviews and delays, upon the recommendation of County staff, the County's Regional Planning Commission (the "Commission") approved the Application on April 19, 2017, but imposed operating conditions, fees and exactions that substantially reduce the historical landfill operations and represent a large increase in aggregate taxes and fees. CCL objected to many of the requirements imposed by the Commission. Current estimates for new costs imposed on CCL under the CUP are in excess of $300,000.

CCL appealed the Commission's decision to the County Board of Supervisors, but the appeal was not successful. At a subsequent hearing, on July 25, 2017, the Board of Supervisors approved the CUP. On October 20, 2017, CCL filed in the Superior Court of California, County of Los Angeles a verified petition for writ of mandate and complaint against the County and the County Board of Supervisors captioned Chiquita Canyon, LLC v. County of Los Angeles, No. BS171262 (Los Angeles Co. Super Ct.) (the "Complaint"). The Complaint challenges the terms of the CUP in 13 counts generally alleging that the County violated multiple California and federal statutes and California and federal constitutional protections. CCL seeks the following relief: (a) an injunction and writ of mandate against certain of the CUP's operational restrictions, taxes and fees, (b) a declaration that the challenged conditions are unconstitutional and in violation of state and federal statutes, (c) reimbursement for any such illegal fees paid under protest, (d) damages, (e) an award of just compensation for a taking, (f) attorney fees, and (g) all other appropriate legal and equitable relief.

Following extensive litigation in 2018 and 2019 on the permissible scope of CCL's challenge, full briefing occurred on June 22, 2020 on six of CCL's causes of action, and the Superior Court issued its decision on July 2, 2020, granting CCL's petition for writ of mandate in part and denying it in part. CCL prevailed with respect to 12 of the challenged conditions, many of which imposed new fees and exactions on the Landfill. Before entry of final judgment, the Superior Court will hear CCL's remaining causes of action. A trial on CCL's remaining causes of action is scheduled for August 1, 2022. Once the Superior Court has entered final judgment, CCL and the County will be permitted to appeal any adverse ruling to the California Court of Appeal. After entry of final judgment and resolution of any appeals, the Superior Court will issue a writ directing the County Board of Supervisors to set aside its decision on the permit with respect to 12 of the challenged conditions. The Board will be allowed to make additional findings to support four of those conditions and reconsider its permit decision in light of the Superior Court's writ. CCL will continue to vigorously prosecute the lawsuit. However, at this point, the Company is not able to determine the likelihood of any outcome in this matter.

B. December 11, 2017 Notice of Violation Regarding Certain CUP Conditions.

The County, through its DRP, issued a Notice of Violation, dated December 11, 2017 (the "NOV"), alleging that CCL violated certain conditions of the CUP, including Condition 79(B)(6) of the CUP by failing to pay an $11,600 Bridge & Thoroughfare Fee ("B&T Fee") that was purportedly due on July 25, 2017. The alleged B&T fee was ostensibly to fund the construction of transportation infrastructure in the area of the Landfill. At the time the NOV was issued, CCL had already contested the legality of the B&T fee in the October 20, 2017 Complaint filed against the County in Los Angeles County Superior Court, described above under paragraph A (the "CUP lawsuit").

On January 12, 2018, CCL filed an appeal of the alleged violations in the NOV. Subsequently, CCL filed additional legal arguments and exhibits contesting the NOV. On March 6, 2018, a DRP employee designated as hearing officer sustained the NOV, including the $11,600 B&T fee, and imposed an administrative penalty in the amount of $83 and a noncompliance fee of $0.75. A written decision memorializing the hearing officer's findings and order was issued on July 10, 2018. On April 13, 2018, CCL filed in the Superior Court of California, County of Los Angeles a Petition for Writ of Administrative Mandamus against the County seeking to overturn the decision sustaining the NOV, contending that the NOV and decision are not supported by the facts or law. On July 17, 2018, the Court granted CCL leave to pay the $11,600 B&T fee and to amend its Complaint in the CUP lawsuit to reflect the payment under protest, allowing the challenge to the B&T fee under the Mitigation Fee Act to proceed in the CUP lawsuit. CCL paid the B&T fee under protest on August 10, 2018, and also paid on that date the administrative penalty of $83 and a noncompliance fee of $0.75. The Court indicated that the NOV case would be coordinated with the CUP lawsuit. The NOV case has been continued multiple times as the CUP lawsuit was adjudicated; it is now set for trial on December 13, 2022. The Superior Court's July 2, 2020 decision in the CUP lawsuit upheld the B&T fee against a Mitigation Fee Act challenge, and addressed two other conditions that were also the subject of the NOV, which may impact the scope of the B&T fee/NOV case. CCL will continue to vigorously prosecute the lawsuit. However, at this point, the Company is not able to determine the likelihood of any outcome in this matter.

18. SUBSEQUENT EVENTS

On May 3, 2022, the Company announced that its Board of Directors approved a regular quarterly cash dividend of $0.23 per Company common share. The dividend will be paid on June 1, 2022, to shareholders of record on the close of business on May 18, 2022.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

FORWARD-LOOKING STATEMENTS

The following discussion should be read in conjunction with our Condensed Consolidated Financial Statements and the related notes included in Part I, Item 1 of this Quarterly Report on Form 10-Q.

We make statements in this Quarterly Report on Form 10-Q that are forward-looking in nature. These include:

- Statements regarding our landfills, including capacity, duration, special projects, demand for and pricing of recyclables, landfill alternatives and related capital expenditures;
- Discussion of competition, loss of contracts, price increases and additional exclusive and/or long-term collection service arrangements;
- Forecasts of cash flows necessary for operations and free cash flow to reduce leverage as well as our ability to draw on our credit facility and access the capital markets to refinance or expand;
- Statements regarding our ability to access capital resources or credit markets at all or on favorable terms;
- Plans for, and the amounts of, certain capital expenditures for our existing and newly acquired properties and equipment;
- Statements regarding fuel, oil and natural gas demand, prices, and price volatility;
- Assessments of regulatory developments and potential changes in environmental, health, safety and tax laws and regulations; and
- Other statements on a variety of topics such as the coronavirus disease 2019 ("COVID-19") pandemic, credit risk of customers, seasonality, labor/pension costs and labor union activity, operational and safety risks, acquisitions, litigation results, goodwill impairments, insurance costs and cybersecurity threats.

These statements can be identified by the use of forward-looking terminology such as "believes," "expects," "intends," "may," "might," "will," "could," "should" or "anticipates," or the negative thereof or comparable terminology, or by discussions of strategy.

Our business and operations are subject to a variety of risks and uncertainties and, consequently, actual results may differ materially from those projected by any forward-looking statements. Factors that could cause actual results to differ from those projected include, but are not limited to, risk factors detailed from time to time in our filings with the SEC and the securities commissions or similar regulatory authorities in Canada.

There may be additional risks of which we are not presently aware or that we currently believe are immaterial that could have an adverse impact on our business. We make no commitment to revise or update any forward-looking statements to reflect events or circumstances that may change, unless required under applicable securities laws.

OVERVIEW OF OUR BUSINESS

We are an integrated solid waste services company that provides non-hazardous waste collection, transfer and disposal services, along with resource recovery primarily through recycling and renewable fuels generation, in mostly exclusive and secondary markets across 43 states in the U.S. and six provinces in Canada. Waste Connections also provides non-hazardous oil and natural gas exploration and production ("E&P") waste treatment, recovery and disposal services in several basins across the U.S., as well as intermodal services for the movement of cargo and solid waste containers in the Pacific Northwest.

Environmental, organizational and financial sustainability initiatives have been key components of our success since we were founded in 1997. We remain committed to growing and expanding these efforts as our industry and technology continue to evolve. To that end, in 2020 we made a $500 million commitment to the advancement of the long-term, aspirational targets outlined in our 2021 Sustainability Report. This report can be found at www.wasteconnections.com/sustainability but does not constitute a part of, and is not incorporated by reference into, this Quarterly Report on Form 10-Q.

We generally seek to avoid highly competitive, large urban markets and instead target markets where we can attain high market share either through exclusive contracts, vertical integration or asset positioning. In markets where waste collection services are provided under exclusive arrangements, or where waste disposal is municipally owned or funded or available at multiple municipal sources, we believe that controlling the waste stream by providing collection services under exclusive arrangements is often more important to our growth and profitability than owning or operating landfills. We also target niche markets, like non-hazardous E&P waste treatment, recovery and disposal services.

The solid waste industry is local and highly competitive in nature, requiring substantial labor and capital resources. We compete for collection accounts primarily on the basis of price and, to a lesser extent, the quality of service, and compete for landfill business on the basis of tipping fees, geographic location and quality of operations. The solid waste industry has been consolidating and continues to consolidate as a result of a number of factors, including the increasing costs and complexity associated with waste management operations and regulatory compliance. Many small independent operators and municipalities lack the capital resources, management, operating skills and technical expertise necessary to operate effectively in such an environment. The consolidation trend has caused solid waste companies to operate larger landfills that have complementary collection routes that can use company-owned disposal capacity. Controlling the point of transfer from haulers to landfills has become increasingly important as landfills continue to close and disposal capacity moves farther from the collection markets it serves.

Generally, the most profitable operators within the solid waste industry are those companies that are vertically integrated or enter into long-term collection contracts. A vertically integrated operator will benefit from: (1) the internalization of waste, which is bringing waste to a company-owned landfill; (2) the ability to charge third-party haulers tipping fees either at landfills or at transfer stations; and (3) the efficiencies gained by being able to aggregate and process waste at a transfer station prior to landfilling.

The demand for our E&P waste services depends on the continued demand for, and production of, oil and natural gas. Crude oil and natural gas prices historically have been volatile. Macroeconomic and geopolitical conditions, including a significant decline in oil prices driven by both surplus production and supply, as well as the decrease in demand caused by factors including the COVID-19 pandemic, have resulted in decreased levels of E&P activity and a corresponding decrease in demand for our E&P waste services. Additionally, across the industry there is uncertainty regarding future demand for oil and related services, as noted by several energy companies, many of whom are customers of our E&P operations. These companies have written down the values of their oil and gas assets in anticipation of the potential for the decarbonization of their energy product mix given an increased global focus on reducing greenhouse gases and addressing climate change. Such uncertainty regarding global demand has had a significant impact on the investment and operating plans of our E&P waste customers in the basins where we operate. If the prices of crude oil and natural gas substantially decline, it could lead to declines in the level of production activity and demand for our E&P waste services, which could result in the recognition of impairment charges on our intangible assets and property and equipment associated with our E&P operations. Conversely, sustained increases in prices of crude oil as a result of inflationary pressures, the uncertainty associated with the Ukrainian conflict and any related bans on oil sales from Russia or supply chain disruptions could result in increasing levels of production activity and demand for our E&P waste services.

THE COVID-19 PANDEMIC'S IMPACT ON OUR RESULTS OF OPERATIONS

March 11, 2022 marked the two-year anniversary of COVID-19 being declared a global pandemic by the World Health Organization. The related economic disruptions largely associated with closures or restrictions put into effect following the onset of the COVID-19 pandemic in the first quarter of 2020 resulted in declines in solid waste commercial collection, transfer station and landfill volumes, and roll off activity. Throughout the remaining fiscal year 2020 and during 2021, solid waste revenue and reported volumes largely reflected the pace and shape of the closures and subsequent reopening activity, with the timing and magnitude of recovery varying by market. Most of the impacts to solid waste volumes associated with the pandemic have largely abated, with landfill volumes and roll off pulls returning to pre-pandemic levels. In certain markets, commercial collection volumes have not returned to pre-pandemic levels.

The COVID-19 pandemic also contributed to a decline in demand for and the value of crude oil, which impacted E&P drilling activity and resulted in lower E&P waste revenue. In recent quarters, E&P waste revenue has improved sequentially on increased drilling activity in several of the major basins.

Since the onset of the COVID-19 pandemic, protecting the health, welfare and safety of our employees has been our top priority. Recognizing the potential for financial hardship and other challenges, we have looked to provide a safety net for our employees on issues of income and family health. To that end, since the onset of the pandemic through year-end 2021, we have incurred over $40 million in incremental COVID-19-related costs, primarily supplemental pay for frontline employees. During Q1 2022, we continued to support our employees and their families, including approximately $10 million in supplemental pay and benefits due to surges in cases related to certain variants of COVID-19.

As a result of the COVID-19 pandemic and subsequent reopening activity, we have also experienced an impact to our operating costs as a result of factors including supply chain disruptions and labor constraints, as demand has recovered and competition has increased. As a result, we have incurred incremental costs associated with higher wages, increased overtime as a result of higher turnover, and increased reliance on third-party services.

The impact of the COVID-19 pandemic on our business, results of operations, financial condition and cash flows in future periods will depend largely on future developments, including the duration and spread of the outbreak in the U.S. and Canada, the rate of vaccinations, the severity of COVID-19 variants, the actions to contain such coronavirus variants, and how quickly and to what extent normal economic and operating conditions can resume.

CRITICAL ACCOUNTING ESTIMATES AND ASSUMPTIONS

The preparation of financial statements in conformity with U.S. generally accepted accounting principles, or GAAP, requires estimates and assumptions that affect the reported amounts of assets and liabilities, revenues and expenses and related disclosures of contingent assets and liabilities in the condensed consolidated financial statements. As described by the SEC, critical accounting estimates and assumptions are those that may be material due to the levels of subjectivity and judgment necessary to account for highly uncertain matters or the susceptibility of such matters to change, and that have a material impact on the financial condition or operating performance of a company. Such critical accounting estimates and assumptions are applicable to our reportable segments. Refer to our most recent Annual Report on Form 10-K for a complete description of our critical accounting estimates and assumptions.

NEW ACCOUNTING PRONOUNCEMENTS

For a description of the new accounting standards that affect us, see Note 3 to our Condensed Consolidated Financial Statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q.

RESULTS OF OPERATIONS FOR THE THREE MONTHS ENDED MARCH 31, 2022 AND 2021

The following table sets forth items in our Condensed Consolidated Statements of Net Income in thousands of U.S. dollars and as a percentage of revenues for the periods indicated.

	Three Months Ended March 31,			
	2022		2021	
Revenues	$ 1,646,255	100.0 %	$ 1,395,942	100.0 %
Cost of operations	989,518	60.1	825,920	59.2
Selling, general and administrative	163,414	9.9	141,422	10.1
Depreciation	179,950	11.0	157,402	11.3
Amortization of intangibles	37,635	2.3	32,192	2.3
Impairments and other operating items	1,878	0.1	634	0.0
Operating income	273,860	16.6	238,372	17.1
Interest expense	(41,324)	(2.5)	(42,425)	(3.0)
Interest income	137	0.0	1,103	0.1
Other income (expense), net	(3,466)	(0.2)	3,548	0.2
Income tax provision	(48,839)	(2.9)	(40,291)	(2.9)
Net income	180,368	11.0	160,307	11.5
Net loss (income) attributable to noncontrolling interests	(44)	0.0	2	0.0
Net income attributable to Waste Connections	$ 180,324	11.0 %	$ 160,309	11.5 %

Revenues. Total revenues increased $250.3 million, or 17.9%, to $1.646 billion for the three months ended March 31, 2022, from $1.396 billion for the three months ended March 31, 2021.

During the three months ended March 31, 2022, incremental revenue from acquisitions closed during, or subsequent to, the three months ended March 31, 2021, increased revenues by $112.3 million.

Operations that were divested subsequent to March 31, 2021 decreased revenues by $2.3 million for the three months ended March 31, 2022.

During the three months ended March 31, 2022, the net increase in prices charged to our customers at our existing operations was $94.0 million, consisting of $83.5 million of core price increases and surcharges of $10.5 million.

During the three months ended March 31, 2022, we overcame the nonrenewal of two large residential collection contracts subsequent to March 31, 2021, which recognized $10.7 million of revenue in the prior year period, to generate total solid waste volume in our existing business of $7.0 million due primarily to increased commercial and roll off collection and increased landfill disposal.

E&P waste revenues at facilities owned during the three months ended March 31, 2022 and 2021 increased $16.6 million due to recoveries in the demand for crude oil resulting in an increase in the value of crude oil, increases in drilling and production activity levels and increases in overall demand for our E&P waste services.

Revenues from sales of recyclable commodities at facilities owned during the three months ended March 31, 2022 and 2021 increased $15.0 million due primarily to higher prices for old corrugated cardboard, aluminum, plastics and other paper products, higher volumes collected from commercial recycling customers, which declined in the prior year period due to economic disruptions resulting from the COVID-19 pandemic, and the impact of changes in our accounting policy associated with recognizing certain recyclable commodity sales gross of selling and processing expenses.

Other revenues increased $7.7 million during the three months ended March 31, 2022, due primarily to a $2.8 million increase resulting from higher prices for renewable energy credits associated with the generation of landfill gas at our Canada segment, a $2.7 million increase in intermodal revenues due primarily to reductions in shipping port logistical constraints which decreased intermodal cargo volumes in the prior year period, a $1.1 million increase in landfill gas sales at our U.S. segments and a $1.1 million increase in other non-core revenue sources.

Cost of Operations. Total cost of operations increased $163.6 million, or 19.8%, to $989.5 million for the three months ended March 31, 2022, from $825.9 million for the three months ended March 31, 2021. The increase was primarily the result of an increase in operating costs at our existing operations of $91.3 million and $74.2 million of additional operating costs from acquisitions closed during, or subsequent to, the three months ended March 31, 2021, partially offset by a decrease in operating costs of $1.9 million at operations divested subsequent to the three months ended March 31, 2021.

The increase in operating costs of $91.3 million at our existing operations for the three months ended March 31, 2022 consisted of an increase in labor and recurring incentive compensation expenses of $20.4 million due primarily to employee pay increases and headcount additions to support solid waste and E&P volume increases, an increase in fuel expense of $16.2 million due to higher diesel and natural gas prices, an increase in truck, container, equipment and facility maintenance and repair expenses of $11.9 million due primarily to increased collection routes and equipment operating hours and parts and service rate increases, an increase in third-party trucking and transportation expenses of $10.2 million due primarily to increased landfill special waste volumes requiring trucking and transportation services to our landfills and higher rates charged by third-party providers, an increase in third-party disposal expenses of $6.7 million due primarily to increased solid waste collection volumes, an increase in supplemental compensation to non-management personnel of $9.0 million to provide financial assistance associated with the impact of COVID-19, an increase in taxes on revenues of $4.3 million due primarily to increased revenues, an increase in expenses for purchasing and processing recyclable commodities of $3.5 million due to higher recyclable commodity values and changes in our accounting policy associated with recognizing certain recyclable commodity sales gross of selling and processing expenses, an increase in leachate expense of $2.2 million due primarily to higher precipitation in certain markets where our landfills are located, an increase in expenses for auto and workers' compensation claims of $1.9 million due primarily to adjustments recorded in the prior year period to decrease projected losses on outstanding claims originally recorded prior to 2021, an increase in insurance premium expenses of $1.4 million due primarily to increased insurance premium costs for auto and environmental compliance, an increase in subcontracted hauling services at our solid waste operations of $1.2 million due to higher costs charged by third-party providers, an increase in intermodal rail expenses of $1.2 million due to higher cargo volumes and $4.3 million of other net expense increases, partially offset by a decrease in employee medical benefits expenses of $3.1 million due to decreased severity and declines in the quantity of medical visits.

Cost of operations as a percentage of revenues increased 0.9 percentage points to 60.1% for the three months ended March 31, 2022, from 59.2% for the three months ended March 31, 2021. The increase as a percentage of revenues consisted of a 0.7 percentage point increase from higher fuel expense, a 0.6 percentage point increase from higher supplemental compensation to non-management personnel, a 0.3 percentage point increase from higher third-party trucking and transportation expenses, a 0.3 percentage point increase from acquisitions closed during, or subsequent to, the three months ended March 31, 2021 having operating margins lower than our company average and a 0.2 percentage point increase from higher maintenance and repair expenses, partially offset by a 0.4 percentage point decrease from lower benefits expenses, a combined 0.6 percentage point decrease from disposal and labor due to price-driven revenue increases and a 0.2 percentage point decrease from all other net changes.

SG&A. SG&A expenses increased $22.0 million, or 15.6%, to $163.4 million for the three months ended March 31, 2022, from $141.4 million for the three months ended March 31, 2021. The increase was comprised of an increase of $13.7 million in SG&A expenses at our existing operations and $8.5 million of additional SG&A expenses from operating locations at acquisitions closed during, or subsequent to, the three months ended March 31, 2021, partially offset by a decrease in SG&A expenses of $0.2 million at operations divested during, or subsequent to, the three months ended March 31, 2021.

The increase in SG&A expenses at our existing operations of $13.7 million for the three months ended March 31, 2022 was comprised of a collective increase in travel, meeting, training and community activity expenses of $5.5 million due to increased travel and social gatherings in the current year period due to a reduction in restrictions associated with the COVID-19 pandemic, an increase in direct acquisition expenses of $4.0 million due to an increase in acquisition activity in the current period, an increase in administrative payroll expenses of $3.5 million due primarily to annual pay and headcount increases, an increase in equity-based compensation expenses of $2.2 million associated with our annual recurring grant of restricted share units to our personnel, an increase in professional fees of $1.6 million due primarily to increased legal services, an increase of $0.8 million resulting from the payment of supplemental bonuses to non-management employees to provide financial assistance associated with the impact of COVID-19 and $1.0 million of other net expense increases, partially offset by a decrease in deferred compensation expenses of $3.1 million as a result of decreases in the market value of investments to which employee deferred compensation liability balances are tracked and a decrease in accrued recurring cash incentive compensation expense to our management of $1.8 million.

SG&A expenses as a percentage of revenues decreased 0.2 percentage points to 9.9% for the three months ended March 31, 2022, from 10.1% for the three months ended March 31, 2021. The decrease as a percentage of revenues consisted of a 0.3 percentage point decrease from lower cash incentive compensation expense and a 0.2 percentage point decrease from lower deferred compensation expense, partially offset by a 0.3 percentage point increase from higher direct acquisition expenses.

Depreciation. Depreciation expense increased $22.5 million, or 14.3%, to $179.9 million for the three months ended March 31, 2022, from $157.4 million for the three months ended March 31, 2021. The increase was comprised of an increase in depreciation and depletion expense of $10.8 million from acquisitions closed during, or subsequent to, the three months ended March 31, 2021, an increase in depreciation expense of $6.2 million from the impact of additions to our fleet and equipment purchased to support our existing operations, an increase in depletion expense of $6.2 million resulting from increased landfill municipal solid waste, special waste and E&P volumes, partially offset by a decrease in depreciation and depletion expense of $0.7 million from operations divested subsequent to the three months ended March 31, 2021.

Depreciation expense as a percentage of revenues decreased 0.3 percentage points to 11.0% for the three months ended March 31, 2022, from 11.3% for the three months ended March 31, 2021. The decrease as a percentage of revenues was primarily attributable to the impact of price-driven revenue increases in our solid waste services, recyclable commodity sales and renewable energy credits.

Amortization of Intangibles. Amortization of intangibles expense increased $5.4 million, or 16.9%, to $37.6 million for the three months ended March 31, 2022, from $32.2 million for the three months ended March 31, 2021. The increase was the result of $9.0 million from intangible assets acquired in acquisitions closed during, or subsequent to, the three months ended March 31, 2021, partially offset by a decrease of $3.6 million from certain intangible assets becoming fully amortized subsequent to March 31, 2021.

Amortization expense as a percentage of revenues was unchanged at 2.3% for the three months ended March 31, 2022 and 2021.

Impairments and Other Operating Items. Impairments and other operating items increased $1.3 million, to net losses totaling $1.9 million for the three months ended March 31, 2022, from net losses totaling $0.6 million for the three months ended March 31, 2021.

The net losses of $1.9 million recorded during the three months ended March 31, 2022 consisted of $3.6 million of charges to terminate or write off the carrying cost of certain contracts that were not, or are not expected to be, renewed prior to their original estimated termination date, partially offset by net gains of $1.7 million from disposal of property and equipment.

The net losses of $0.6 million recorded during the three months ended March 31, 2021 consisted of $0.5 million of charges to terminate or write off the carrying cost of certain contracts that were not, or are not expected to be, renewed prior to their original estimated termination date and $0.1 million of other net charges.

Operating Income. Operating income increased $35.5 million, or 14.9%, to $273.9 million for the three months ended March 31, 2022, from $238.4 million for the three months ended March 31, 2021.

The increase in our operating income for the three months ended March 31, 2022 was due primarily to price increases for our solid waste services, increases in solid waste collection and disposal volumes, operating income contributions from increased sales of recyclable commodities and renewable energy credits associated with the generation of landfill gas, operating income generated from acquisitions closed during, or subsequent to, the three months ended March 31, 2021 and an increase in earnings at our E&P waste operations.

Operating income as a percentage of revenues decreased 0.5 percentage points to 16.6% for the three months ended March 31, 2022, from 17.1% for the three months ended March 31, 2021. The decrease in operating income as a percentage of revenues was comprised of a 0.9 percentage point increase in cost of operations and a 0.1 percentage point increase in impairments and other operating items, partially offset by a 0.3 percentage point decrease in depreciation expense and a 0.2 percentage point decrease in SG&A expense.

Interest Expense. Interest expense decreased $1.1 million, or 2.6%, to $41.3 million for the three months ended March 31, 2022, from $42.4 million for the three months ended March 31, 2021. The decrease was primarily attributable to a decrease of $13.7 million from the repayment of $1.75 billion of senior unsecured notes in 2021, a decrease of $0.8 million from lower interest rates on borrowings outstanding under our Credit Agreement and $0.7 million of other net decreases, partially offset by an increase of $10.9 million from the issuance of $2.0 billion of senior unsecured notes subsequent to March 31, 2021 and an increase of $3.2 million due to an increase in the average borrowings outstanding under our Credit Agreement.

Interest Income. Interest income decreased $1.0 million to $0.1 million for the three months ended March 31, 2022, from $1.1 million for the three months ended March 31, 2021. The decrease was primarily attributable to lower average cash balances in the current period.

Other Income (Expense), Net. Other income (expense), net decreased $7.0 million, to an expense total of $3.5 million for the three months ended March 31, 2022, from an income total of $3.5 million for the three months ended March 31, 2021.

Other expense of $3.5 million recorded during the three months ended March 31, 2022 consisted of $1.9 million from a decline in the value of investments purchased to fund our employee deferred compensation obligations, a $1.0 million adjustment to increase certain acquisition-related accrued liabilities recorded in prior periods and $0.6 million of other net expenses.

Other income of $3.5 million recorded during the three months ended March 31, 2021 consisted of $1.2 million of income earned on investments purchased to fund our employee deferred compensation obligations, $1.2 million of adjustments to decrease certain accrued liabilities acquired in prior period acquisitions and $1.1 million in other net income sources.

Income Tax Provision. Income taxes increased $8.5 million, to $48.8 million for the three months ended March 31, 2022, from $40.3 million for the three months ended March 31, 2021. Our effective tax rate for the three months ended March 31, 2022 was 21.3%. Our effective tax rate for the three months ended March 31, 2021 was 20.1%.

The income tax provision for the three months ended March 31, 2022 included a benefit of $2.4 million from share-based payment awards being recognized in the income statement when settled, as well as a portion of our internal financing being taxed at effective rates substantially lower than the U.S. federal statutory rate.

The income tax provision for the three months ended March 31, 2021 included a benefit of $2.0 million from share-based payment awards being recognized in the income statement when settled, as well as a portion of our internal financing being taxed at effective rates substantially lower than the U.S. federal statutory rate.

SEGMENT RESULTS

General

No single contract or customer accounted for more than 10% of our total revenues at the consolidated or reportable segment level during the periods presented. The following table disaggregates our revenue by service line for the periods indicated (dollars in thousands of U.S. dollars).

	Three Months Ended March 31,	
	2022	2021
Commercial	$ 499,676	$ 426,395
Residential	440,288	400,819
Industrial and construction roll off	259,488	209,258
Total collection	1,199,452	1,036,472
Landfill	299,765	271,936
Transfer	217,957	189,323
Recycling	63,094	32,448
E&P	43,555	28,012
Intermodal and other	45,693	35,634
Intercompany	(223,261)	(197,883)
Total	$ 1,646,255	$ 1,395,942

We manage our operations through the following five geographic solid waste operating segments: Eastern, Southern, Western, Central and Canada. Our five geographic solid waste operating segments comprise our reportable segments. Our Chief Operating Decision Maker evaluates operating segment profitability and determines resource allocations based on several factors, of which the primary financial measure is segment EBITDA. We define segment EBITDA as earnings before interest, taxes, depreciation, amortization, impairments and other operating items and other income (expense). Segment EBITDA is not a measure of operating income, operating performance or liquidity under GAAP and may not be comparable to similarly titled measures reported by other companies. Our management uses segment EBITDA in the evaluation of segment operating performance as it is a profit measure that is generally within the control of the operating segments. Each operating segment is responsible for managing several vertically integrated operations, which are comprised of districts.

Summarized financial information for our reportable segments are shown in the following tables in thousands of U.S. dollars and as a percentage of total segment revenue for the periods indicated.

Three Months Ended March 31, 2022	Revenue	EBITDA[b]	EBITDA Margin	Depreciation and Amortization
Eastern	$ 421,597	$ 107,788	25.6 %	$ 65,284
Southern	387,064	108,610	28.1 %	47,572
Western	346,710	104,747	30.2 %	36,563
Central	276,177	92,036	33.3 %	35,026
Canada	214,707	84,844	39.5 %	27,364
Corporate[a]	—	(4,702)	—	5,776
	$ 1,646,255	$ 493,323	30.0 %	$ 217,585

Three Months Ended March 31, 2021	Revenue	EBITDA[b]	EBITDA Margin	Depreciation and Amortization
Eastern	$ 336,461	$ 89,121	26.5 %	$ 53,474
Southern	338,161	93,424	27.6 %	45,485
Western	297,004	93,825	31.6 %	30,089
Central	235,386	79,040	33.6 %	31,575
Canada	188,930	73,940	39.1 %	26,492
Corporate[a]	—	(750)	—	2,479
	$ 1,395,942	$ 428,600	30.7 %	$ 189,594

(a) The majority of Corporate expenses are allocated to the five operating segments. Direct acquisition expenses, expenses associated with common shares held in the deferred compensation plan exchanged for other investment options and share-based compensation expenses associated with Progressive Waste share-based grants outstanding at June 1, 2016 that were continued by the Company are not allocated to the five operating segments and comprise the net EBITDA for our Corporate segment for the periods presented.

(b) For those items included in the determination of segment EBITDA, the accounting policies of the segments are the same as those described in our most recent Annual Report on Form 10-K.

A reconciliation of segment EBITDA to Income before income tax provision is included in Note 10 to our Condensed Consolidated Financial Statements included in Part 1, Item 1 of this report.

Significant changes in revenue, EBITDA and depreciation, depletion and amortization for our reportable segments for the three month periods ended March 31, 2022, compared to the three month periods ended March 31, 2021, are discussed below.

Eastern

Revenue increased $85.1 million to $421.6 million for the three months ended March 31, 2022, from $336.5 million for the three months ended March 31, 2021, due to price increases, solid waste collection and disposal volume increases, contributions from acquisitions, higher prices for recyclable commodities and higher volumes collected from commercial recycling customers.

EBITDA increased $18.7 million to $107.8 million for the three months ended March 31, 2022, from $89.1 million for the three months ended March 31, 2021. EBITDA margin was 25.6% and 26.5% for the three months ended March 31, 2022 and 2021, respectively. The decrease in our EBITDA margin was due primarily to increased diesel fuel expenses, increased third-party trucking and transportation expenses, increased repair and maintenance expenses, increased leachate disposal expenses and increased corporate overhead expense allocations, partially offset by decreases from disposal due to price-driven revenue increases and decreased medical benefits expenses.

Depreciation, depletion and amortization expense increased $11.8 million, to $65.3 million for the three months ended March 31, 2022, from $53.5 million for the three months ended March 31, 2021, due to assets acquired in acquisitions, higher depreciation from additions to our fleet and equipment and higher depletion from increased landfill volumes.

Southern

Revenue increased $48.9 million to $387.1 million for the three months ended March 31, 2022, from $338.2 million for the three months ended March 31, 2021, due to solid waste price increases, increased E&P waste revenues attributable to increases in drilling and production activity levels resulting in increases in the demand for our E&P waste services, contributions from acquisitions and increased roll off collection and landfill volumes, partially offset by lower residential collection volumes due to the loss of a collection contract subsequent to March 31, 2021 and a decrease resulting from the divestiture of certain non-strategic operating locations.

EBITDA increased $15.2 million to $108.6 million for the three months ended March 31, 2022, from $93.4 million for the three months ended March 31, 2021. EBITDA margin was 28.1% and 27.6% for the three months ended March

31, 2022 and 2021, respectively. The increase in our EBITDA margin was due to increased earnings at our E&P operations, price-led increases in solid waste revenue at locations owned in the comparable periods and decreased medical benefits expenses, partially offset by increased diesel and natural gas fuel expenses, increased vehicle and equipment maintenance and repair expenses and the impact of acquisitions closed subsequent to March 31, 2021 having lower EBITDA margins than our segment average.

Depreciation, depletion and amortization expense increased $2.1 million, to $47.6 million for the three months ended March 31, 2022, from $45.5 million for the three months ended March 31, 2021, due to assets acquired in acquisitions and higher depletion from increased solid waste and E&P landfill volumes.

Western

Revenue increased $49.7 million to $346.7 million for the three months ended March 31, 2022, from $297.0 million for the three months ended March 31, 2021, due to contributions from acquisitions, price increases, increased collection and disposal volumes, higher prices for recyclable commodities and higher volumes collected from residential recycling customers and increased intermodal revenue.

EBITDA increased $10.9 million to $104.7 million for the three months ended March 31, 2022, from $93.8 million for the three months ended March 31, 2021. EBITDA margin was 30.2% and 31.6% for the three months ended March 31, 2022 and 2021, respectively. The decrease in our EBITDA margin was due to increased vehicle and equipment maintenance and repair expenses, increased diesel and natural gas fuel expenses, increased third-party trucking and transportation expenses and increased labor expenses attributable to pay rate increases, partially offset by decreases from disposal due to price-driven revenue increases and decreased medical benefits expenses.

Depreciation, depletion and amortization expense increased $6.5 million, to $36.6 million for the three months ended March 31, 2022, from $30.1 million for the three months ended March 31, 2021, due to assets acquired in acquisitions and higher depreciation from additions to our fleet and equipment.

Central

Revenue increased $40.8 million to $276.2 million for the three months ended March 31, 2022, from $235.4 million for the three months ended March 31, 2021, due to price increases, contributions from acquisitions and higher prices for recyclable commodities.

EBITDA increased $13.0 million to $92.0 million for the three months ended March 31, 2022, from $79.0 million for the three months ended March 31, 2021. EBITDA margin was 33.3% and 33.6% for the three months ended March 31, 2022 and 2021, respectively. The decrease in our EBITDA margin was due to increased vehicle and equipment maintenance and repair expenses, increased diesel and natural gas fuel expenses and increased labor expenses attributable to pay rate increases, partially offset by decreased medical benefits expenses and decreased third-party trucking and transportation expenses.

Depreciation, depletion and amortization expense increased $3.4 million, to $35.0 million for the three months ended March 31, 2022, from $31.6 million for the three months ended March 31, 2021, due to assets acquired in acquisitions and higher depreciation from additions to our fleet and equipment.

Canada

Revenue increased $25.8 million to $214.7 million for the three months ended March 31, 2022, from $188.9 million for the three months ended March 31, 2021, due to price increases, contributions from acquisitions, higher commercial and roll off collection volumes, higher landfill special waste volumes, higher prices for renewable energy credits associated with the generation of landfill gas, higher prices for recyclable commodities and higher volumes collected from commercial recycling customers, partially offset by lower residential collection volumes due to the loss of a collection contract subsequent to March 31, 2021.

EBITDA increased $10.9 million to $84.8 million for the three months ended March 31, 2022, from $73.9 million for the three months ended March 31, 2021. EBITDA margin was 39.5% and 39.1% for the three months ended March 31, 2022 and 2021, respectively. The increase in our EBITDA margin was due to price-led increases in revenue at locations owned in the comparable periods, partially offset by increased diesel fuel expenses and increased cost of recyclable commodities expenses.

Depreciation, depletion and amortization expense increased $0.9 million, to $27.4 million for the three months ended March 31, 2022, from $26.5 million for the three months ended March 31, 2021, due to assets acquired in acquisitions and higher depletion from increased landfill volumes.

Corporate

EBITDA decreased $4.0 million, to a loss of $4.7 million for the three months ended March 31, 2022, from a loss of $0.7 million for the three months ended March 31, 2021. The decrease was due to increased equity-based compensation expenses, increased travel, meeting, training and community activity expenses, increased direct acquisition expenses, increased legal expenses and the payment of supplemental bonuses to non-management employees to provide financial assistance associated with the impact of COVID-19, partially offset by increased allocations of corporate overhead expenses to our segments, decreased deferred compensation expenses and decreased cash incentive compensation expense to our management.

LIQUIDITY AND CAPITAL RESOURCES

The following table sets forth certain cash flow information for the three months ended March 31, 2022 and 2021 (in thousands of U.S. dollars):

	Three Months Ended March 31, 2022	Three Months Ended March 31, 2021
Net cash provided by operating activities	$ 440,897	$ 400,396
Net cash used in investing activities	(489,881)	(100,553)
Net cash provided by (used in) financing activities	292,058	(165,482)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	595	403
Net increase in cash, cash equivalents and restricted cash	243,669	134,764
Cash, cash equivalents and restricted cash at beginning of period	219,615	714,389
Cash, cash equivalents and restricted cash at end of period	$ 463,284	$ 849,153

Operating Activities Cash Flows

For the three months ended March 31, 2022, net cash provided by operating activities was $440.9 million. For the three months ended March 31, 2021, net cash provided by operating activities was $400.4 million. The $40.5 million increase was due primarily to the following:

1) *Increase in earnings* — Our increase in net cash provided by operating activities was favorably impacted by $54.4 million from an increase in net income, excluding depreciation, amortization of intangibles, share-based compensation, adjustments to and payments of contingent consideration recorded in earnings and loss on disposal of assets and impairments, due primarily to price increases, earnings from acquisitions closed during, or subsequent to, the three months ended March 31, 2021, earnings generated from the increased sales of recyclable commodities and renewal energy credits associated with the generation of landfill gas and an increase in earnings at our E&P waste operations.

2) *Deferred income taxes* — Our increase in net cash provided by operating activities was favorably impacted by $30.0 million from deferred income taxes as changes in deferred income taxes resulted in an increase to operating cash flows of $38.4 million for the three months ended March 31, 2022, compared to an increase to operating cash flows of $8.4 million for the three months ended March 31, 2021. The increase in deferred taxes for each of the three months ended March 31, 2022 and 2021 was attributable to capital expenditures providing tax benefits resulting from accelerated tax depreciation.
3) *Accounts payable and accrued liabilities* — Our increase in net cash provided by operating activities was favorably impacted by $20.8 million from accounts payable and accrued liabilities as changes in accounts payable and accrued liabilities resulted in an increase to operating cash flows of $3.6 million for the three months ended March 31, 2022, compared to a decrease to operating cash flows of $17.2 million for the three months ended March 31, 2021. The increase for the three months ended March 31, 2022 was due primarily to increases in operating expenses during the period which remained as outstanding obligations at March 31, 2022, partially offset by the payment of annual cash incentive compensation to our management, which was accrued as a liability at year end. The decrease for the three months ended March 31, 2021 was due primarily to the payment of annual cash incentive compensation to our management, which was accrued as a liability at year end.
4) *Deferred revenue* — Our increase in net cash provided by operating activities was favorably impacted by $7.7 million from deferred revenue as changes in deferred revenue resulted in an increase to operating cash flows of $16.6 million for the three months ended March 31, 2022, compared to an increase to operating cash flows of $8.9 million for the three months ended March 31, 2021. For both comparative periods, deferred revenue increased due to price increases on our advanced billed residential and commercial collection services.
5) *Accounts receivable* – Our increase in net cash provided by operating activities was unfavorably impacted by $33.2 million from accounts receivable as changes in accounts receivable resulted in a decrease to operating cash flows of $11.2 million for the three months ended March 31, 2022, compared to an increase to operating cash flows of $22.0 million for the three months ended March 31, 2021. The decrease for the three months ended March 31, 2022 was due to increases in revenues, which remained as outstanding receivables at March 31, 2022. The increase for the three months ended March 31, 2021 was attributable to improved accounts receivable turnover resulting in lower uncollected receivable compared to the prior period end.
6) *Prepaid expenses* – Our increase in net cash provided by operating activities was unfavorably impacted by $29.8 million from prepaid expenses as changes in prepaid expenses resulted in a decrease to operating cash flows of $21.2 million for the three months ended March 31, 2022, compared to an increase to operating cash flows of $8.6 million for the three months ended March 31, 2021. The decrease for the three months ended March 31, 2022 was due primarily to inflation-led increases in inventory, prepaid income taxes for our Canadian operations and prepaid information technology application licenses. The increase for the three months ended March 31, 2021 was due primarily to the benefit of utilizing prior period prepaid vendor payments.
7) *Other long-term liabilities* – Our increase in net cash provided by operating activities was unfavorably impacted by $11.6 million from other long-term liabilities as changes in other long-term liabilities resulted in a decrease to operating cash flows of $5.5 million for the three months ended March 31, 2022, compared to an increase to operating cash flows of $6.1 million for the three months ended March 31, 2021. The decrease for the three months ended March 31, 2022 was due primarily to distributions to employees from our deferred compensation plan. The increase for the three months ended March 31, 2021 was primarily attributable to the receipt of funds associated with the eminent domain purchase of an operating facility that will be replaced with a newly constructed facility in a future period.

As of March 31, 2022, we had a working capital surplus of $155.1 million, including cash and equivalents of $391.4 million. Our working capital increased $355.1 million from a working capital deficit of $200.0 million at December 31, 2021 including cash and equivalents of $147.4 million, due primarily to an increase in cash balance and current income tax benefits. To date, we have experienced no loss or lack of access to our cash and equivalents; however, we can provide no assurances that access to our cash and equivalents will not be impacted by adverse conditions in the financial markets. Our strategy in managing our working capital is generally to apply the cash generated from our operations that remains after satisfying our working capital and capital expenditure requirements, along with share repurchase and dividend programs, to reduce the unhedged portion of our indebtedness under our Credit Agreement and to minimize our cash balances.

Investing Activities Cash Flows

Net cash used in investing activities increased $389.3 million to $489.9 million for the three months ended March 31, 2022, from $100.6 million for the three months ended March 31, 2021. The significant components of the increase included the following:

1) An increase in cash paid for acquisitions of $346.7 million;
2) An increase in capital expenditures at operations owned in the comparable periods of $42.1 million due to increases in land and buildings, landfill site costs, trucks and containers; and
3) An increase in capital expenditures at operations acquired during the comparative periods of $13.4 million due to additional trucks and containers; less
4) An increase in proceeds from disposal of assets of $12.9 million due to additional disposal of non-strategic assets to provide funding toward new capital expenditures.

Financing Activities Cash Flows

Net cash provided by financing activities increased $457.6 million to $292.1 million for the three months ended March 31, 2022, from net cash used in financing activities of $165.5 million for the three months ended March 31, 2021. The significant components of the increase included the following:

1) An increase from the net change in long-term borrowings of $805.6 million (long-term borrowings increased $800.2 million during the three months ended March 31, 2022 and decreased $5.4 million during the three months ended March 31, 2021); and
2) An increase from the change in book overdraft of $16.9 million due primarily to maintaining, in the prior year period, additional funds in our bank accounts that were used to fund outstanding checks; less
3) A decrease from higher payments to repurchase our common shares of $359.0 million due to an increased volume of shares repurchased; less
4) A decrease from higher cash dividends paid of $5.5 million due primarily to an increase in our quarterly dividend rate for the three months ended March 31, 2022 to $0.23 per share, from $0.205 per share for the three months ended March 31, 2021; less
5) A decrease from higher debt issuance costs of $4.4 million attributable to senior note offerings completed in the comparative periods.

Our business is capital intensive. Our capital requirements include acquisitions and capital expenditures for landfill cell construction, landfill development, landfill closure activities and intermodal facility construction in the future.

On July 27, 2021, our Board of Directors approved, subject to receipt of regulatory approvals, the annual renewal of our normal course issuer bid, or the NCIB, to purchase up to 13,025,895 of our common shares during the period of August 10, 2021 to August 9, 2022 or until such earlier time as the NCIB is completed or terminated at our option. Shareholders may obtain a copy of our TSX Form 12 – Notice of Intention to Make a Normal Course Issuer Bid, without charge, by request directed to our Executive Vice President and Chief Financial Officer at (832) 442-2200. The timing and amounts of any repurchases pursuant to the NCIB will depend on many factors, including our capital structure, the market price of our common shares and overall market conditions. All common shares purchased under the NCIB will be immediately cancelled following their repurchase. Information regarding our NCIB can be found under the "Normal Course Issuer Bid" section in Note 16 to the Condensed Consolidated Financial Statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q and is incorporated herein by reference.

Our Board of Directors authorized the initiation of a quarterly cash dividend in October 2010 and has increased it on an annual basis. In October 2021, our Board of Directors authorized an increase to our regular quarterly cash dividend of $0.025, from $0.205 to $0.230 per share. Cash dividends of $59.4 million and $53.9 million were paid during the three months ended March 31, 2022 and 2021, respectively. We cannot assure you as to the amounts or timing of future dividends.

We made $152.3 million in capital expenditures for property and equipment during the three months ended March 31, 2022, and we expect to make total capital expenditures for property and equipment of approximately $850 million in 2022. We have funded and intend to fund the balance of our planned 2022 capital expenditures principally through cash on hand, internally generated funds and borrowings under our Credit Agreement. In addition, we may make substantial additional capital expenditures in acquiring land and solid waste businesses. If we acquire additional landfill disposal facilities, we may also have to make significant expenditures to bring them into compliance with applicable regulatory requirements, obtain permits or expand our available disposal capacity. We cannot currently determine the amount of these expenditures because they will depend on the number, nature, condition and permitted status of any acquired landfill disposal facilities. We believe that our cash and equivalents, Credit Agreement and the funds we expect to generate from operations will provide adequate cash to fund our working capital and other cash needs for the foreseeable future. However, disruptions in the capital and credit markets could adversely affect our ability to draw on our Credit Agreement or raise other capital. Our access to funds under the Credit Agreement is dependent on the ability of the banks that are parties to the agreement to meet their funding commitments. Those banks may not be able to meet their funding commitments if they experience shortages of capital and liquidity or if they experience excessive volumes of borrowing requests within a short period of time.

As of March 31, 2022, $650.0 million under the term loan and $1.087 billion under the revolving credit facility were outstanding under the Credit Agreement, exclusive of outstanding standby letters of credit of $44.7 million. We also had $81.6 million of letters of credit issued and outstanding at March 31, 2022 under a facility other than the Credit Agreement. Our Credit Agreement matures in July 2026.

On March 9, 2022, we completed an underwritten public offering (the “Offering”) of $500.0 million aggregate principal amount of 3.20% Senior Notes due 2032 (the “New 2032 Senior Notes”). We issued the New 2032 Senior Notes under the Indenture, dated as of November 16, 2018, by and between the Company and U.S. Bank Trust Company, National Association, as successor in interest to U.S. Bank National Association, as trustee, as supplemented by the Sixth Supplemental Indenture, dated as of March 9, 2022.

We will pay interest on the New 2032 Senior Notes semi-annually in arrears. The New 2032 Senior Notes will mature on June 1, 2032. The New 2032 Senior Notes are our senior unsecured obligations, ranking equally in right of payment with our other existing and future unsubordinated debt and senior to any of our future subordinated debt. The New 2032 Senior Notes are not guaranteed by any of our subsidiaries.

See Note 9 to our Condensed Consolidated Financial Statements included in Part I, Item 1 of this report for further details on the debt agreements.

We are a well-known seasoned issuer with an effective shelf registration statement on Form S-3 filed in September 2021, which registers an unspecified amount of debt securities, including debentures, notes or other types of debt. In the future, we may issue debt securities under our shelf registration statement or in private placements from time to time on an opportunistic basis, based on market conditions and available pricing. Unless otherwise indicated in the relevant offering documents, we expect to use the proceeds from any such offerings for general corporate purposes, including repaying, redeeming or repurchasing debt, acquiring additional assets or businesses, capital expenditures and increasing our working capital.

As of March 31, 2022, we had the following contractual obligations:

	Payments Due by Period (amounts in thousands of U.S. dollars)				
Recorded Obligations	**Total**	**Less Than 1 Year**	**1 to 3 Years**	**3 to 5 Years**	**Over 5 Years**
Long-term debt	$ 5,904,926	$ 28,070	$ 12,639	$ 1,748,327	$ 4,115,890
Cash interest payments	$ 2,091,742	$ 168,089	$ 342,605	$ 300,200	$ 1,280,848
Contingent consideration	$ 114,244	$ 64,480	$ 12,962	$ 3,224	$ 33,578
Operating leases	$ 197,049	$ 30,396	$ 63,344	$ 36,185	$ 67,124
Final capping, closure and post-closure	$ 1,655,241	$ 18,468	$ 38,670	$ 14,643	$ 1,583,460

Long-term debt payments include:

1) $1.087 billion in principal payments due July 2026 related to our revolving credit facility under our Credit Agreement. We may elect to draw amounts on our Credit Agreement in U.S. dollar LIBOR rate loans, U.S. dollar base rate loans, Canadian-based bankers' acceptances or BA equivalent notes, and Canadian dollar prime rate loans. At March 31, 2022, $824.5 million of the outstanding borrowings drawn under the revolving credit facility were in U.S. LIBOR rate loans, which bear interest at the LIBOR rate plus the applicable margin (for a total rate of 1.46% on such date). At March 31, 2022, $100.0 million of the outstanding borrowings drawn under the revolving credit facility were in U.S. base rate loans, which bear interest at the base rate plus the applicable margin (for a total rate of 3.50% on such date). At March 31, 2022, $162.1 million of the outstanding borrowings drawn under the revolving credit facility were in Canadian-based bankers' acceptances, which bear interest at the Canadian Dollar Offered Rate plus the applicable acceptance fee (for a total rate of 1.96% on such date).

2) $650.0 million in principal payments due July 2026 related to our term loan under our Credit Agreement. Outstanding amounts on the term loan can be either base rate loans or LIBOR loans. At March 31, 2022, all amounts outstanding under the term loan were in LIBOR loans which bear interest at the LIBOR rate plus the applicable margin (for a total rate of 1.46% on such date).

3) $500.0 million in principal payments due 2028 related to our 2028 Senior Notes. The 2028 Senior Notes bear interest at a rate of 4.25%.

4) $500.0 million in principal payments due 2029 related to our 2029 Senior Notes. The 2029 Senior Notes bear interest at a rate of 3.50%.

5) $600.0 million in principal payments due 2030 related to our 2030 Senior Notes. The 2030 Senior Notes bear interest at a rate of 2.60%.

6) $650.0 million in principal payments due 2032 related to our 2032 Senior Notes. The 2032 Senior Notes bear interest at a rate of 2.20%.

7) $500.0 million in principal payments due 2032 related to our New 2032 Senior Notes. The New 2032 Senior Notes bear interest at a rate of 3.20%.

8) $500.0 million in principal payments due 2050 related to our 2050 Senior Notes. The 2050 Senior Notes bear interest at a rate of 3.05%.

9) $850.0 million in principal payments due 2052 related to our 2052 Senior Notes. The 2052 Senior Notes bear interest at a rate of 2.95%.

10) $58.4 million in principal payments related to our notes payable to sellers and other third parties. Our notes payable to sellers and other third parties bear interest at rates between 2.42% and 10.35% at March 31, 2022, and have maturity dates ranging from 2022 to 2036.

11) $10.0 million in principal payments related to our financing leases. Our financing leases bear interest at a rate of 1.89% at March 31, 2022, and have expiration dates ranging from 2026 to 2027.

The following assumptions were made in calculating cash interest payments:

1) We calculated cash interest payments on the Credit Agreement using the LIBOR rate plus the applicable LIBOR margin, the base rate plus the applicable base rate margin, the Canadian Dollar Offered Rate plus the applicable acceptance fee and the Canadian prime rate plus the applicable prime rate margin at March 31, 2022. We assumed the Credit Agreement is paid off when it matures in July 2026.

2) We calculated cash interest payments on our interest rate swaps using the stated interest rate in the swap agreement less the LIBOR rate through the earlier expiration of the term of the swaps or the term of the credit facility.

Contingent consideration payments include $96.0 million recorded as liabilities in our Condensed Consolidated Financial Statements at March 31, 2022, and $18.2 million of future interest accretion on the recorded obligations.

We are party to operating lease agreements and finance leases. These lease agreements are established in the ordinary course of our business and are designed to provide us with access to facilities and equipment at competitive, market-driven prices.

The estimated final capping, closure and post-closure expenditures presented above are in current dollars.

	Amount of Commitment Expiration Per Period (amounts in thousands of U.S. dollars)				
Unrecorded Obligations[(1)]	**Total**	**Less Than 1 Year**	**1 to 3 Years**	**3 to 5 Years**	**Over 5 Years**
Unconditional purchase obligations	$ 135,363	$ 93,820	$ 41,543	$ —	$ —

(1) We are party to unconditional purchase obligations. These purchase obligations are established in the ordinary course of our business and are designed to provide us with access to products at competitive, market-driven prices. At March 31, 2022, our unconditional purchase obligations consisted of multiple fixed-price fuel purchase contracts under which we have 51.9 million gallons remaining to be purchased for a total of $135.4 million. The current fuel purchase contracts expire on or before December 31, 2024. These arrangements have not materially affected our financial position, results of operations or liquidity during the three months ended March 31, 2022, nor are they expected to have a material impact on our future financial position, results of operations or liquidity.

We have obtained financial surety bonds, primarily to support our financial assurance needs and landfill and E&P operations. We provided customers and various regulatory authorities with surety bonds in the aggregate amounts of approximately $1.361 billion and $1.301 billion at March 31, 2022 and December 31, 2021, respectively. These arrangements have not materially affected our financial position, results of operations or liquidity during the three months ended March 31, 2022, nor are they expected to have a material impact on our future financial position, results of operations or liquidity.

From time to time, we evaluate our existing operations and their strategic importance to us. If we determine that a given operating unit does not have future strategic importance, we may sell or otherwise dispose of those operations. Although we believe our reporting units would not be impaired by such dispositions, we could incur losses on them.

The disposal tonnage that we received in the three month periods ended March 31, 2022 and 2021, at all of our landfills during the respective period, is shown below (tons in thousands):

	Three Months Ended March 31,			
	2022		2021	
	Number of Sites	Total Tons	Number of Sites	Total Tons
Owned operational landfills and landfills operated under life-of-site agreements	89	10,987	87	10,189
Operated landfills	5	150	4	127
	94	11,137	91	10,316

NON-GAAP FINANCIAL MEASURES

Adjusted Free Cash Flow

We present adjusted free cash flow, a non-GAAP financial measure, supplementally because it is widely used by investors as a valuation and liquidity measure in the solid waste industry. Management uses adjusted free cash flow as one of the principal measures to evaluate and monitor the ongoing financial performance of our operations. We define adjusted free cash flow as net cash provided by operating activities, plus or minus change in book overdraft, plus proceeds from disposal of assets, less capital expenditures for property and equipment and distributions to noncontrolling interests. We further adjust this calculation to exclude the effects of items management believes impact the ability to assess the operating performance of our business. This measure is not a substitute for, and should be used in conjunction with, GAAP liquidity or financial measures. Other companies may calculate adjusted free cash flow differently. Our adjusted free cash flow for the three month periods ended March 31, 2022 and 2021, are calculated as follows (amounts in thousands of U.S. dollars):

	Three Months Ended March 31,	
	2022	**2021**
Net cash provided by operating activities	$ 440,897	$ 400,396
Plus (less): Change in book overdraft	87	(16,849)
Plus: Proceeds from disposal of assets	15,012	2,080
Less: Capital expenditures for property and equipment	(152,318)	(96,793)
Adjustments:		
Payment of contingent consideration recorded in earnings [(a)]	—	520
Cash received for divestitures [(b)]	(5,671)	—
Transaction-related expenses [(c)]	23,404	526
Pre-existing Progressive Waste share-based grants [(d)]	76	97
Tax effect [(e)]	(1,110)	(188)
Adjusted free cash flow	$ 320,377	$ 289,789

(a) Reflects the addback of acquisition-related payments for contingent consideration that were recorded as expenses in earnings and as a component of cash flows from operating activities as the amounts paid exceeded the fair value of the contingent consideration recorded at the acquisition date.

(b) Reflects the elimination of cash received in conjunction with the divestiture of certain operations.

(c) Reflects the addback of acquisition-related transaction costs and the settlement of an acquired tax liability.

(d) Reflects the cash settlement of pre-existing Progressive Waste share-based awards during the period.

(e) The aggregate tax effect of footnotes (a) through (d) is calculated based on the applied tax rates for the respective periods.

Adjusted EBITDA

We present adjusted EBITDA, a non-GAAP financial measure, supplementally because it is widely used by investors as a performance and valuation measure in the solid waste industry. Management uses adjusted EBITDA as one of the principal measures to evaluate and monitor the ongoing financial performance of our operations. We define adjusted EBITDA as net income attributable to Waste Connections, plus or minus net income (loss) attributable to noncontrolling interests, plus income tax provision, plus interest expense, less interest income, plus depreciation and amortization expense, plus closure and post-closure accretion expense, plus or minus any loss or gain on impairments and other operating items, plus other expense, less other income. We further adjust this calculation to exclude the effects of other items management believes impact the ability to assess the operating performance of our business. This measure is not a substitute for, and should be used in conjunction with, GAAP financial measures. Other companies may calculate adjusted EBITDA differently. Our adjusted EBITDA for the three month periods ended March 31, 2022 and 2021, are calculated as follows (amounts in thousands of U.S. dollars):

	Three Months Ended March 31,	
	2022	**2021**
Net income attributable to Waste Connections	$ 180,324	$ 160,309
Plus (less): Net income (loss) attributable to noncontrolling interests	44	(2)
Plus: Income tax provision	48,839	40,291
Plus: Interest expense	41,324	42,425
Less: Interest income	(137)	(1,103)
Plus: Depreciation and amortization	217,585	189,594
Plus: Closure and post-closure accretion	4,096	3,709
Plus: Impairments and other operating items	1,878	634
Plus (less): Other expense (income), net	3,466	(3,548)
Adjustments:		
Plus: Transaction-related expenses (a)	4,540	526
Plus: Fair value changes to equity awards (b)	161	339
Adjusted EBITDA	$ 502,120	$ 433,174

(a) Reflects the addback of acquisition-related transaction costs.
(b) Reflects fair value accounting changes associated with certain equity awards.

Adjusted Net Income Attributable to Waste Connections and Adjusted Net Income per Diluted Share Attributable to Waste Connections

We present adjusted net income attributable to Waste Connections and adjusted net income per diluted share attributable to Waste Connections, both non-GAAP financial measures, supplementally because they are widely used by investors as a valuation measure in the solid waste industry. Management uses adjusted net income attributable to Waste Connections and adjusted net income per diluted share attributable to Waste Connections as one of the principal measures to evaluate and monitor the ongoing financial performance of our operations. We provide adjusted net income attributable to Waste Connections to exclude the effects of items management believes impact the comparability of operating results between periods. Adjusted net income attributable to Waste Connections has limitations due to the fact that it excludes items that have an impact on our financial condition and results of operations. Adjusted net income attributable to Waste Connections and adjusted net income per diluted share attributable to Waste Connections are not a substitute for, and should be used in conjunction with, GAAP financial measures. Other companies may calculate these non-GAAP financial measures differently. Our adjusted net income attributable to Waste Connections and adjusted net income per diluted share attributable to Waste Connections for the three month periods ended March 31, 2022 and 2021, are calculated as follows (amounts in thousands of U.S. dollars, except per share amounts):

	Three Months Ended March 31,	
	2022	**2021**
Reported net income attributable to Waste Connections	$ 180,324	$ 160,309
Adjustments:		
Amortization of intangibles [(a)]	37,635	32,192
Impairments and other operating items [(b)]	1,878	634
Transaction-related expenses [(c)]	4,540	526
Fair value changes to equity awards [(d)]	161	339
Tax effect [(e)]	(11,092)	(8,543)
Adjusted net income attributable to Waste Connections	$ 213,446	$ 185,457
Diluted earnings per common share attributable to Waste Connections' common shareholders:		
Reported net income	$ 0.69	$ 0.61
Adjusted net income	$ 0.82	$ 0.70

(a) Reflects the elimination of the non-cash amortization of acquisition-related intangible assets.
(b) Reflects the addback of impairments and other operating items.
(c) Reflects the addback of acquisition-related transaction costs.
(d) Reflects fair value accounting changes associated with certain equity awards.
(e) The aggregate tax effect of the adjustments in footnotes (a) through (d) is calculated based on the applied tax rates for the respective periods.

INFLATION

In the current environment, we have seen inflationary pressures resulting from higher fuel, materials and labor costs in certain markets and higher resulting third-party costs in areas such as brokerage, repairs and construction. Consistent with industry practice, many of our contracts allow us to pass through certain costs to our customers, including increases in landfill tipping fees and, in some cases, fuel costs. To the extent that there are decreases in fuel costs, in some cases, a portion of these reductions are passed through to customers in the form of lower fuel and material surcharges. Therefore, we believe that we should be able to increase prices to offset many cost increases that result from inflation in the ordinary course of business. However, competitive pressures or delays in the timing of rate increases under certain of our contracts may require us to absorb at least part of these cost increases, especially if cost increases exceed the average rate of inflation. Management's estimates associated with inflation have an impact on our accounting for landfill liabilities.

SEASONALITY

Based on historic trends, excluding any impact from the COVID-19 pandemic or an economic recession, we would expect our operating results to vary seasonally, with revenues typically lowest in the first quarter, higher in the second and third quarters and lower in the fourth quarter than in the second and third quarters. This seasonality reflects (a) the lower volume of solid waste generated during the late fall, winter and early spring because of decreased construction and demolition activities during winter months in Canada and the U.S. and (b) reduced E&P activity during harsh weather conditions, with expected fluctuation due to such seasonality between our highest and lowest quarters of approximately 10%. In addition, some of our operating costs may be higher in the winter months. Adverse winter weather conditions slow waste collection activities, resulting in higher labor and operational costs. Greater precipitation in the winter increases the weight of collected municipal solid waste, resulting in higher disposal costs, which are calculated on a per ton basis.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

In the normal course of business, we are exposed to market risk, including changes in interest rates and prices of certain commodities, and to a lesser extent, foreign currency exchange rate risks. We use hedge agreements to manage a portion of our risks related to interest rates. While we are exposed to credit risk in the event of non-performance by counterparties to our hedge agreements, in all cases such counterparties are highly rated financial institutions and we do not anticipate non-performance under current market conditions. We do not hold or issue derivative financial instruments for trading purposes. We monitor our hedge positions by regularly evaluating the positions at market and by performing sensitivity analyses over the unhedged variable rate debt positions.

At March 31, 2022, our derivative instruments included six interest rate swap agreements that effectively fix the interest rate on the applicable notional amounts of our variable rate debt as follows (dollars in thousands of U.S. dollars):

Date Entered	**Notional Amount**	**Fixed Interest Rate Paid***	**Variable Interest Rate Received**	**Effective Date**	**Expiration Date**
August 2017	$ 100,000	1.900 %	1-month LIBOR	July 2019	July 2022
August 2017	$ 200,000	2.200 %	1-month LIBOR	October 2020	October 2025
August 2017	$ 150,000	1.950 %	1-month LIBOR	February 2020	February 2023
June 2018	$ 200,000	2.925 %	1-month LIBOR	October 2020	October 2025
June 2018	$ 200,000	2.925 %	1-month LIBOR	October 2020	October 2025
December 2018	$ 200,000	2.850 %	1-month LIBOR	July 2022	July 2027

* Plus applicable margin.

Under derivatives and hedging guidance, the interest rate swap agreements are considered cash flow hedges for a portion of our variable rate debt, and we apply hedge accounting to account for these instruments. The notional amounts and all other significant terms of the swap agreements are matched to the provisions and terms of the variable rate debt being hedged.

We have performed sensitivity analyses to determine how market rate changes will affect the fair value of our unhedged floating rate debt. Such an analysis is inherently limited in that it reflects a singular, hypothetical set of assumptions. Actual market movements may vary significantly from our assumptions. Fair value sensitivity is not necessarily indicative of the ultimate cash flow or earnings effect we would recognize from the assumed market rate movements. We are exposed to cash flow risk due to changes in interest rates with respect to the unhedged floating rate balances owed at March 31, 2022 and December 31, 2021, of $886.6 million and $603.9 million, respectively, including floating rate debt under our Credit Agreement. A one percentage point increase in interest rates on our variable-rate debt as of March 31, 2022 and December 31, 2021, would decrease our annual pre-tax income by approximately $8.9 million and $6.0 million, respectively. All of our remaining debt instruments are at fixed rates, or effectively fixed under the interest rate swap agreements described above; therefore, changes in market interest rates under these instruments would not significantly impact our cash flows or results of operations, subject to counterparty default risk.

The market price of diesel fuel is unpredictable and can fluctuate significantly. Because of the volume of fuel we purchase each year, a significant increase in the price of fuel could adversely affect our business and reduce our operating margins. To manage a portion of this risk, we periodically enter into fuel hedge agreements related to forecasted diesel fuel purchases, and we also enter into fixed price fuel purchase contracts. At March 31, 2022, we had no fuel hedge agreements in place; however, we have entered into fixed price fuel purchase contracts for 2022 as described below.

For the year ending December 31, 2022, we expect to purchase approximately 86.5 million gallons of fuel, of which 44.5 million gallons will be purchased at market prices and 42.0 million gallons will be purchased under our fixed price fuel purchase contracts. We have performed sensitivity analyses to determine how market rate changes will affect the fair value of our unhedged, market rate diesel fuel purchases. Such an analysis is inherently limited in that it reflects a singular, hypothetical set of assumptions. Actual market movements may vary significantly from our assumptions. Fair value sensitivity is not necessarily indicative of the ultimate cash flow or earnings effect we would recognize from the assumed market rate movements. During the nine month period of April 1, 2022 to December 31, 2022, we expect to purchase approximately 33.4 million gallons of fuel at market prices; therefore, a $0.10 per gallon increase in the price of fuel over the remaining nine months in 2022 would decrease our pre-tax income during this period by approximately $3.3 million.

We market a variety of recyclable materials, including compost, cardboard, mixed paper, plastic containers, glass bottles and ferrous and aluminum metals. We own and operate recycling operations and market collected recyclable materials to third parties for processing before resale. Where possible, to reduce our exposure to commodity price risk with respect to recycled materials, we have adopted a pricing strategy of charging collection and processing fees for recycling volume collected from third parties. In the event of a decline in recycled commodity prices, a 10% decrease in average recycled commodity prices from the average prices that were in effect during the three months ended March 31, 2022 and 2021, would have had a $6.1 million and $3.1 million impact on revenues for the three months ended March 31, 2022 and 2021, respectively.

We have operations in Canada and, where significant, we have quantified and described the impact of foreign currency translation on components of income, including operating revenue and operating costs. However, the impact of foreign currency has not materially affected our results of operations in 2021 or 2022. A $0.01 change in the Canadian dollar to U.S. dollar exchange rate would impact our annual revenue and EBITDA by approximately $12.0 million and $4.8 million, respectively.

Item 4. Controls and Procedures

As required by Rule 13a-15(b) under the U.S. Securities Exchange Act of 1934, as amended, or the Exchange Act, we carried out an evaluation, under the supervision and with the participation of our management, including our President and Chief Executive Officer and our Executive Vice President and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures (as such term is defined in Rule 13a-15(e) under the Exchange Act) as of the end of the fiscal quarter covered by this Quarterly Report on Form 10-Q. In designing and evaluating the disclosure controls and procedures, our management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and our management is required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

Based on this evaluation, our President and Chief Executive Officer and our Executive Vice President and Chief Financial Officer concluded as of March 31, 2022, that our disclosure controls and procedures were effective at the reasonable assurance level such that information required to be disclosed in our Exchange Act reports: (1) is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms; and (2) is accumulated and communicated to our management, including our President and Chief Executive Officer and Executive Vice President and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

During the quarter ended March 31, 2022, there was no change in our internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II – OTHER INFORMATION

Item 1. Legal Proceedings

Information regarding our legal proceedings can be found in Note 17 of our Condensed Consolidated Financial Statements included in Part I, Item 1 of this report and is incorporated herein by reference.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

On July 27, 2021, our Board of Directors approved, subject to receipt of regulatory approvals, the annual renewal of our NCIB to purchase up to 13,025,895 of our common shares during the period of August 10, 2021 to August 9, 2022 or until such earlier time as the NCIB is completed or terminated at our option. The renewal followed the conclusion of our NCIB that expired August 9, 2021. We received TSX approval for our annual renewal of the NCIB on August 6, 2021. Under the NCIB, we may make share repurchases only in the open market, including on the NYSE, the TSX, and/or alternative Canadian trading systems, at the prevailing market price at the time of the transaction. The timing and amounts of any repurchases pursuant to the NCIB will depend on many factors, including our capital structure, the market price of the common shares and overall market conditions. All common shares purchased under the NCIB shall be immediately cancelled following their repurchase. As of March 31, 2022, we have repurchased 3.4 million of our common shares pursuant to the NCIB in effect during the three months ended March 31, 2022 at an aggregate cost of $425.0 million, or an average price of $125.44 per share. The table below reflects repurchases we made during the three months ended March 31, 2022 (in thousands of U.S. dollars, except share and per share amounts):

Period	**Total Number of Shares Purchased**	**Average Price Paid Per Share** [(1)]	**Total Number of Shares Purchased as Part of Publicly Announced Program**	**Maximum Number of Shares that May Yet Be Purchased Under the Program**
1/1/22 - 1/31/22	2,635,235	$ 126.03	2,635,235	10,132,828
2/1/22 - 2/28/22	752,920	$ 123.36	752,920	9,379,908
3/1/22 - 3/31/22	—	$ -	—	9,379,908
	3,388,155	$ 125.44	3,388,155	

(1) This amount represents the weighted average price paid per common share. This price includes a per share commission paid for all repurchases.

Item 6. Exhibits

Exhibit Number	Description of Exhibits
3.1	Articles of Amendment (incorporated by reference to Exhibit 3.1 of the Registrant's Form 8-K filed on May 26, 2017)
3.2	Articles of Amalgamation (incorporated by reference to Exhibit 3.2 of the Registrant's Form 8-K filed on June 7, 2016)
3.3	Articles of Amendment (incorporated by reference to Exhibit 3.1 of the Registrant's Form 8-K filed on June 7, 2016)
3.4	By-law No. 1 of the Registrant (incorporated by reference to Exhibit 3.3 of the Registrant's Form 8-K filed on June 7, 2016)
4.1	Indenture, dated as of November 16, 2018, by and between Waste Connections, Inc. and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 of the Registrant's Form 8-K filed on November 16, 2018)
4.2	Sixth Supplemental Indenture, dated as of March 9, 2022, by and between Waste Connections, Inc. and U.S. Bank Trust Company, National Association, as trustee (incorporated by reference to Exhibit 4.2 of the Registrant's Form 8-K filed on March 9, 2022)
4.3	Letter of Credit Facility Reimbursement Agreement, dated as of February 25,2022, by and between the Registrant and The Bank of Nova Scotia (incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed on February 25, 2022)
31.1	Certification of Principal Executive Officer pursuant to Exchange Act Rules 13a-14(a)/15d-14(a)
31.2	Certification of Principal Financial Officer pursuant to Exchange Act Rules 13a-14(a)/15d-14(a)
32.1	Certification of Principal Executive Officer pursuant to 18 U.S.C. §1350
32.2	Certification of Principal Financial Officer pursuant to 18 U.S.C. §1350
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	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.LAB	XBRL Taxonomy Extension Labels Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
104	Cover Page Interactive Data File – The cover page interactive data file does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

WASTE CONNECTIONS, INC.

Date: May 4, 2022

BY: /s/ Worthing F. Jackman
Worthing F. Jackman
President and Chief Executive Officer

Date: May 4, 2022

BY: /s/ Mary Anne Whitney
Mary Anne Whitney
Executive Vice President and Chief Financial Officer