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 June 30, 2024

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: 1-14267

REPUBLIC SERVICES, INC.
(Exact name of registrant as specified in its charter)

Delaware	**65-0716904**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
18500 North Allied Way	
Phoenix, Arizona	**85054**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: (480) 627-2700

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 Stock, par value $0.01 per share	RSG	New York Stock Exchange

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 (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☑ No ☐

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

Large accelerated filer	☑	Accelerated filer	☐	Smaller reporting company	☐
Non-accelerated filer	☐			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 ☑

As of July 17, 2024, the registrant had outstanding 314,068,287 shares of Common Stock, par value $0.01 per share (excluding treasury shares of 7,217,356).

REPUBLIC SERVICES, INC.

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PART I - FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS.

REPUBLIC SERVICES, INC.
CONSOLIDATED BALANCE SHEETS
(in millions, except per share data)

	June 30, 2024	December 31, 2023
	(Unaudited)	
ASSETS		
Current assets:		
Cash and cash equivalents	$ 490.6	$ 140.0
Accounts receivable, less allowance for doubtful accounts and other of $82.9 and $83.2, respectively	1,817.8	1,768.4
Prepaid expenses and other current assets	351.3	472.6
Total current assets	2,659.7	2,381.0
Restricted cash and marketable securities	178.0	163.6
Property and equipment, net	11,446.5	11,350.9
Goodwill	15,864.9	15,834.5
Other intangible assets, net	463.4	496.2
Other assets	1,321.6	1,183.9
Total assets	$ 31,934.1	$ 31,410.1
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 1,285.5	$ 1,411.5
Notes payable and current maturities of long-term debt	1,432.9	932.3
Deferred revenue	472.5	467.3
Accrued landfill and environmental costs, current portion	140.5	141.6
Accrued interest	103.1	104.1
Other accrued liabilities	1,099.1	1,171.5
Total current liabilities	4,533.6	4,228.3
Long-term debt, net of current maturities	11,526.8	11,887.1
Accrued landfill and environmental costs, net of current portion	2,332.2	2,281.0
Deferred income taxes and other long-term tax liabilities, net	1,569.2	1,526.8
Insurance reserves, net of current portion	365.8	348.8
Other long-term liabilities	600.2	594.6
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, par value $0.01 per share; 50 shares authorized; none issued	—	—
Common stock, par value $0.01 per share; 750 shares authorized; 321.2 and 320.7 issued including shares held in treasury, respectively	3.2	3.2
Additional paid-in capital	2,932.2	2,900.8
Retained earnings	9,060.7	8,433.9
Treasury stock, at cost; 7.2 and 6.1 shares, respectively	(981.9)	(783.5)
Accumulated other comprehensive loss, net of tax	(9.1)	(12.1)
Total Republic Services, Inc. stockholders' equity	11,005.1	10,542.3
Non-controlling interests in consolidated subsidiary	1.2	1.2
Total stockholders' equity	11,006.3	10,543.5
Total liabilities and stockholders' equity	$ 31,934.1	$ 31,410.1

The accompanying notes are an integral part of these statements.

REPUBLIC SERVICES, INC.
UNAUDITED CONSOLIDATED STATEMENTS OF INCOME
(in millions, except per share data)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
Revenue	$ 4,048.0	$ 3,725.9	$ 7,909.8	$ 7,307.0
Expenses:				
Cost of operations	2,382.6	2,224.4	4,665.8	4,393.8
Depreciation, amortization and depletion	413.0	358.3	812.2	717.0
Accretion	26.7	24.5	53.4	48.6
Selling, general and administrative	407.6	396.0	821.7	775.2
Gain on business divestitures and impairments, net	(1.4)	—	(1.4)	—
Restructuring charges	5.7	15.5	11.5	21.0
Operating income	813.8	707.2	1,546.6	1,351.4
Interest expense	(128.3)	(124.4)	(267.6)	(251.1)
Loss on extinguishment of debt	—	—	—	(0.2)
Loss from unconsolidated equity method investments	(33.8)	(3.6)	(42.5)	(2.7)
Interest income	1.6	1.6	3.1	3.0
Other income (loss), net	0.7	(0.6)	13.3	1.9
Income before income taxes	654.0	580.2	1,252.9	1,102.3
Provision for income taxes	142.1	152.6	287.3	290.9
Net income	511.9	427.6	965.6	811.4
Net income attributable to non-controlling interests in consolidated subsidiary	(0.4)	(0.2)	(0.3)	(0.2)
Net income attributable to Republic Services, Inc.	$ 511.5	$ 427.4	$ 965.3	$ 811.2
Basic earnings per share attributable to Republic Services, Inc. stockholders:				
Basic earnings per share	$ 1.62	$ 1.35	$ 3.06	$ 2.56
Weighted average common shares outstanding	314.9	316.8	315.1	316.8
Diluted earnings per share attributable to Republic Services, Inc. stockholders:				
Diluted earnings per share	$ 1.62	$ 1.35	$ 3.06	$ 2.56
Weighted average common and common equivalent shares outstanding	315.2	317.3	315.5	317.2
Cash dividends per common share	$ 0.535	$ 0.495	$ 1.070	$ 0.990

The accompanying notes are an integral part of these statements.

REPUBLIC SERVICES, INC.
UNAUDITED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(in millions)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
Net income	$ 511.9	$ 427.6	$ 965.6	$ 811.4
Other comprehensive income (loss), net of tax				
Hedging activity:				
Realized income reclassified into earnings	(6.8)	(2.2)	(8.9)	(4.8)
Unrealized gain	1.2	7.3	6.4	12.5
Pension activity:				
Change in funded status of pension plan obligations	—	—	—	0.2
Foreign currency activity:				
Unrealized gain on foreign currency translation	1.8	(2.5)	5.5	(2.5)
Other comprehensive income, net of tax	(3.8)	2.6	3.0	5.4
Comprehensive income	508.1	430.2	968.6	816.8
Comprehensive income attributable to non-controlling interests	(0.4)	(0.2)	(0.3)	(0.2)
Comprehensive income attributable to Republic Services, Inc.	$ 507.7	$ 430.0	$ 968.3	$ 816.6

The accompanying notes are an integral part of these statements.

REPUBLIC SERVICES, INC.
UNAUDITED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(in millions)

	Republic Services, Inc. Stockholders' Equity								
	Common Stock		Additional Paid-In Capital	Retained Earnings	Treasury Stock		Accumulated Other Comprehensive Loss, Net of Tax	Non-controlling Interests In Consolidated Subsidiary	Total
	Shares	Amount			Shares	Amount			
Balance as of December 31, 2023	320.7	$ 3.2	$ 2,900.8	$ 8,433.9	(6.1)	$ (783.5)	$ (12.1)	$ 1.2	$ 10,543.5
Net income (loss)	—	—	—	453.8	—	—	—	(0.1)	453.7
Other comprehensive income	—	—	—	—	—	—	6.8	—	6.8
Cash dividends declared	—	—	—	(168.5)	—	—	—	—	(168.5)
Issuances of common stock	0.5	—	3.2	—	(0.2)	(28.5)	—	—	(25.3)
Stock-based compensation	—	—	12.0	(1.3)	—	—	—	—	10.7
Distributions paid	—	—	—	—	—	—	—	(0.3)	(0.3)
Balance as of March 31, 2024	321.2	3.2	2,916.0	8,717.9	(6.3)	(812.0)	(5.3)	0.8	10,820.6
Net income	—	—	—	511.5	—	—	—	0.4	511.9
Other comprehensive loss	—	—	—	—	—	—	(3.8)	—	(3.8)
Cash dividends declared	—	—	—	(168.0)	—	—	—	—	(168.0)
Issuances of common stock	—	—	5.0	—	—	(0.7)	—	—	4.3
Stock-based compensation	—	—	11.2	(0.7)	—	—	—	—	10.5
Purchase of common stock for treasury	—	—	—	—	(0.9)	(169.2)	—	—	(169.2)
Balance as of June 30, 2024	321.2	$ 3.2	$ 2,932.2	$ 9,060.7	(7.2)	$ (981.9)	$ (9.1)	$ 1.2	$ 11,006.3

	Republic Services, Inc. Stockholders' Equity								
	Common Stock		Additional Paid-In Capital	Retained Earnings	Treasury Stock		Accumulated Other Comprehensive Loss, Net of Tax	Non-controlling Interests In Consolidated Subsidiary	Total
	Shares	Amount			Shares	Amount			
Balance as of December 31, 2022	320.3	$ 3.2	$ 2,843.2	$ 7,356.3	(4.2)	$ (504.6)	$ (12.1)	$ 0.8	$ 9,686.8
Net income	—	—	—	383.9	—	—	—	—	383.9
Other comprehensive income	—	—	—	—	—	—	2.8	—	2.8
Cash dividends declared	—	—	—	(156.5)	—	—	—	—	(156.5)
Issuances of common stock	0.3	—	2.9	—	(0.1)	(13.9)	—	—	(11.0)
Stock-based compensation	—	—	12.3	(1.0)	—	—	—	—	11.3
Balance as of March 31, 2023	320.6	3.2	2,858.4	7,582.7	(4.3)	(518.5)	(9.3)	0.8	9,917.3
Net income	—	—	—	427.4	—	—	—	0.2	427.6
Other comprehensive income	—	—	—	—	—	—	2.6	—	2.6
Cash dividends declared	—	—	—	(156.6)	—	—	—	—	(156.6)
Issuances of common stock	0.1	—	4.5	—	—	(0.5)	—	—	4.0
Stock-based compensation	—	—	10.6	(0.8)	—	—	—	—	9.8
Balance as of June 30, 2023	320.7	$ 3.2	$ 2,873.5	$ 7,852.7	(4.3)	$ (519.0)	$ (6.7)	$ 1.0	$ 10,204.7

The accompanying notes are an integral part of these statements.

REPUBLIC SERVICES, INC.
UNAUDITED CONSOLIDATED STATEMENTS OF CASH FLOWS
(in millions)

	Six Months Ended June 30, 2024	Six Months Ended June 30, 2023
Cash provided by operating activities:		
Net income	$ 965.6	$ 811.4
Adjustments to reconcile net income to cash provided by operating activities:		
Depreciation, amortization, depletion and accretion	865.6	765.6
Non-cash interest expense	34.9	45.1
Stock-based compensation	21.8	21.4
Deferred tax provision	47.5	33.4
Provision for doubtful accounts, net of adjustments	19.9	19.7
Loss on extinguishment of debt	—	0.2
Gain on disposition of assets and asset impairments, net	(0.3)	(4.7)
Loss (gain) from unconsolidated equity method investments	42.5	2.7
Other non-cash items	(0.4)	(1.5)
Change in assets and liabilities, net of effects from business acquisitions and divestitures:		
Accounts receivable	(69.4)	(52.0)
Prepaid expenses and other assets	36.2	138.5
Accounts payable	19.5	35.1
Capping, closure and post-closure expenditures	(22.2)	(24.5)
Remediation expenditures	(26.7)	(21.2)
Other liabilities	(47.3)	(5.4)
Proceeds for retirement of certain hedging relationships	23.7	2.4
Cash provided by operating activities	1,910.9	1,766.2
Cash used in investing activities:		
Purchases of property and equipment	(917.9)	(714.3)
Proceeds from sales of property and equipment	5.3	17.1
Cash used in acquisitions and investments, net of cash and restricted cash acquired	(201.0)	(987.7)
Cash paid for business divestitures	1.7	(0.3)
Purchases of restricted marketable securities	(17.0)	(9.7)
Sales of restricted marketable securities	16.4	9.1
Other	(0.2)	11.5
Cash used in investing activities	(1,112.7)	(1,674.3)
Cash used in financing activities:		
Proceeds from credit facilities and notes payable, net of fees	10,484.2	15,401.2
Proceeds from issuance of senior notes, net of discount and fees	888.9	1,183.6
Payments of credit facilities and notes payable	(11,274.0)	(16,286.9)
Issuances of common stock, net	(21.0)	(7.0)
Purchases of common stock for treasury	(167.6)	—
Cash dividends paid	(336.8)	(313.0)
Distributions paid to non-controlling interests in consolidated subsidiary	(0.3)	—
Contingent consideration payments	(8.0)	(11.6)
Cash used in financing activities	(434.6)	(33.7)
Effect of foreign exchange rate changes on cash	0.7	0.5
Increase in cash, cash equivalents, restricted cash and restricted cash equivalents	364.3	58.7
Cash, cash equivalents, restricted cash and restricted cash equivalents at beginning of period	227.5	214.3
Cash, cash equivalents, restricted cash and restricted cash equivalents at end of period	$ 591.8	$ 273.0

The accompanying notes are an integral part of these statements.

REPUBLIC SERVICES, INC.
NOTES TO UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS

1. BASIS OF PRESENTATION

Republic Services, Inc., a Delaware corporation, and its consolidated subsidiaries (also referred to collectively as Republic, the Company, we, us, or our), is one of the largest providers of environmental services in the United States, as measured by revenue. Our senior management evaluates, oversees and manages the financial performance of our operations through three field groups, referred to as Group 1, Group 2 and Group 3. Group 1 is our recycling and waste business operating primarily in geographic areas located in the western United States. Group 2 is our recycling and waste business operating primarily in geographic areas located in the southeastern and mid-western United States, the eastern seaboard of the United States, and Canada. Group 3 is our environmental solutions business operating primarily in geographic areas located across the United States and Canada. These groups represent our reportable segments, which each provide integrated environmental services, including but not limited to collection, transfer, recycling, and disposal.

The unaudited consolidated financial statements include the accounts of Republic Services, Inc. and its wholly owned and majority owned subsidiaries in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP). We account for investments in entities in which we do not have a controlling financial interest under the equity method of accounting or, for investments that do not meet the criteria to be accounted for under the equity method, we reflect these investments at their fair value when it is readily determinable. If fair value is not readily determinable, we use an alternative measurement approach. All material intercompany accounts and transactions have been eliminated in consolidation.

We have prepared these unaudited consolidated financial statements pursuant to the rules and regulations of the Securities and Exchange Commission (SEC). Certain information related to our organization, significant accounting policies and footnote disclosures normally included in financial statements prepared in accordance with U.S. GAAP have been condensed or omitted. In the opinion of management, these financial statements include all adjustments that, unless otherwise disclosed, are of a normal recurring nature and necessary for a fair presentation of the financial position, results of operations and cash flows for the periods presented. Operating results for interim periods are not necessarily indicative of the results you can expect for a full year. You should read these financial statements in conjunction with our audited consolidated financial statements and notes thereto appearing in our Annual Report on Form 10-K for the fiscal year ended December 31, 2023.

For comparative purposes, certain prior year amounts have been reclassified to conform to the current year presentation and are not material to our consolidated financial statements. All dollar amounts in tabular presentations are in millions, except per share amounts and unless otherwise noted.

Management's Estimates and Assumptions

In preparing our financial statements, we make numerous estimates and assumptions that affect the amounts reported in these financial statements and accompanying notes. We must make these estimates and assumptions because certain information we use is dependent on future events, cannot be calculated with a high degree of precision from data available or simply cannot be readily calculated based on generally accepted methodologies. In preparing our financial statements, the more critical and subjective areas that deal with the greatest amount of uncertainty relate to our accounting for our landfill development costs and final capping, closure and post-closure costs; our liabilities for environmental remediation, and insurance reserves. For more detail on significant accounting policies, refer to Note 2, *Summary of Significant Accounting Policies*, of the Notes to Consolidated Financial Statements in our Annual Report on Form 10-K for the fiscal year ended December 31, 2023. Our actual results may differ significantly from our estimates.

New Accounting Pronouncements

Accounting Standards Updates Issued but not yet Adopted

Climate-Related Disclosures

In March 2024, the SEC adopted Final Rule 33-11275 and 34-99678 - *The Enhancement and Standardization of Climate-Related Disclosures for Investors*. The rules require registrants to provide standardized disclosures related to material climate-related risks, governance and risk management strategies, and the financial impact of severe weather events and material Scope 1 and 2 greenhouse gas emissions. The rules require implementation in phases between 2025 and 2033. In April 2024, the SEC announced that it would voluntarily stay these rules pending judicial review. The Company is currently evaluating the impact of the rules on its future consolidated financial statements.

Codification Amendments in Response to the SEC's Disclosure Update and Simplification Initiative

In October 2023, the FASB issued ASU 2023-06 to modify the disclosure or presentation requirements of a variety of topics, which will allow users to more easily compare entities subject to the SEC's existing disclosures with those entities that were not previously subject to the SEC's requirements, and to align the requirements in the FASB accounting standard codification with the SEC's regulations. The Company is currently evaluating the amendments and the impact on its future consolidated financial statements.

Improvements to Reportable Segment Disclosures

In November 2023, the FASB issued ASU 2023-07, Segment Reporting (Topic 280): *Improvements to Reportable Segment Disclosures* (ASU 2023-07). ASU 2023-07 amends the reportable segment disclosure requirements, primarily through enhanced disclosures about significant segment expenses. The amendments in this update are effective for fiscal years beginning after December 15, 2023 and interim periods beginning after December 15, 2024. We are currently assessing the effect this guidance may have on our consolidated financial statements.

Improvements to Income Tax Disclosures

In December 2023, the FASB issued ASU 2023-09, Income Taxes (Topic 740): *Improvements to Income Tax Disclosures* (ASU 2023-09). ASU 2023-09 requires entities to provide additional information in the rate reconciliation and additional disclosures about income taxes paid. The amendments in this update are effective for fiscal years beginning after December 15, 2024. We are currently assessing the effect this guidance may have on our consolidated financial statements.

2. BUSINESS ACQUISITIONS, INVESTMENTS AND RESTRUCTURING CHARGES

Acquisitions

We acquired various environmental services businesses during the six months ended June 30, 2024 and 2023. The aggregate purchase price paid for these business acquisitions and the allocations of the aggregate purchase price follows:

	2024	2023
Purchase price:		
Cash used in acquisitions, net of cash acquired of $0.8 and $15.0, respectively	$ 40.9	$ 918.7
Holdbacks	—	8.1
Fair value, future minimum finance lease payments	—	0.5
Total	$ 40.9	$ 927.3
Allocated as follows:		
Accounts receivable	$ 1.9	$ 26.1
Prepaid expenses	—	1.0
Landfill development costs	—	0.5
Property and equipment	20.3	160.3
Operating right-of-use lease assets	—	1.7
Other assets	—	0.1
Parts and supplies	0.1	2.2
Accounts payable	(0.3)	(5.3)
Deferred revenue	—	(8.1)
Environmental remediation liabilities	—	(5.6)
Closure and post-closure liabilities	—	(10.5)
Operating right-of-use lease liabilities	—	(1.7)
Deferred income tax liabilities	(1.3)	(9.2)
Other liabilities	(0.2)	(1.2)
Fair value of tangible assets acquired and liabilities assumed	20.5	150.3
Excess purchase price to be allocated	$ 20.4	$ 777.0
Excess purchase price allocated as follows:		
Other intangible assets	$ 4.2	$ 103.0
Goodwill	16.2	674.0
Total allocated	$ 20.4	$ 777.0

Certain of the purchase price allocations are preliminary and based on information existing at the acquisition dates. Accordingly, the purchase price allocations are subject to change. For the acquisitions that closed during the six months ended June 30, 2024, we expect that a majority of the goodwill and intangible assets recognized as a result of these acquisitions will not be deductible for tax purposes.

These acquisitions are not material to the Company's results of operations, individually or in the aggregate. As a result, no pro forma financial information is provided.

In November 2023, we acquired all of the issued and outstanding capital stock or other ownership interests of Advanced Chemical Transport LLC (ACT). ACT's environmental solutions operations are primarily located in the western United States and provide us with additional growth opportunities in our environmental solutions line of business. The purchase price allocation is preliminary and remains subject to revision as additional information is obtained about the facts and circumstances that existed at the valuation date. The preliminary allocation of purchase price, including the value assigned to property, plant and equipment and customer relationship intangible assets acquired, is based on the best estimates of management and is subject to revision based on the final valuations. We expect our final valuations to be completed in the fourth quarter of 2024.

In December 2023, we acquired all of the issued and outstanding membership and other equity interests of Central Texas Refuse, LLC and an affiliate thereof (CTR). CTR's vertically integrated recycling and waste services operations are located in and around Austin, Texas and provide us with the opportunity to re-enter the high growth Austin market. The purchase price allocation is preliminary and remains subject to revision as additional information is obtained about the facts and circumstances that existed at the valuation date. The preliminary allocation of purchase price, including the value assigned to property, plant and equipment and customer relationship intangible assets acquired as well as certain landfill and environmental liabilities assumed, is based on the best estimates of management and is subject to revision based on the final valuations. We expect our final valuations to be completed in the fourth quarter of 2024.

Investments

In 2024, we acquired a non-controlling equity interest in a joint venture with a landfill gas-to-energy developer to construct a renewable natural gas project at one of our landfill locations in Illinois. During the six months ended June 30, 2024, we contributed $30.8 million in the joint venture. The investment is accounted for under the equity method of accounting.

In 2024, we acquired a non-controlling equity interest in a thermal processing facility that treats and recycles contaminated soil, hazardous and non-hazardous waste, and contaminated water to expand our environmental service offering in Canada. During the six months ended June 30, 2024, we contributed $26.9 million in the joint venture. The investment is accounted for under the equity method of accounting.

These investments were recorded as other assets in our consolidated balance sheets as of June 30, 2024.

In 2024 and 2023, we acquired non-controlling equity interests in certain limited liability companies that qualified for investment tax credits under Section 48 of the Internal Revenue Code. In exchange for our non-controlling interests, we made capital contributions of $90.8 million and $1.5 million, which were recorded to other assets in our June 30, 2024 and 2023 consolidated balance sheets, respectively. During the three and six months ended June 30, 2024, we decreased the carrying value of these investments by $33.2 million and $42.4 million, respectively. Additionally, our tax provisions reflect benefits of $32.6 million and $41.0 million for the three and six months ended June 30, 2024 due to the tax credits related to these investments, compared to no benefits for the three and six months ended June 30, 2023. For further discussion of the income tax benefits, refer to Note 11, *Income Taxes,* in Part II, Item 8 of our Annual Report on Form 10-K for the year ended December 31, 2023.

Restructuring Charges

During the three and six months ended June 30, 2024, we incurred restructuring charges of $5.7 million and $11.5 million, respectively, and during the three and six months ended June 30, 2023, we incurred restructuring charges of $15.5 million and $21.0 million, respectively. The 2024 charges related to the redesign of our asset management, and customer and order management software systems. Of the 2023 charges, $9.4 million related to the early termination of certain leases and $6.1 million related to the redesign of our asset management, and customer and order management software systems. During the six months ended June 30, 2024 and 2023, we paid $9.9 million and $26.1 million, respectively, related to these restructuring efforts.

3. GOODWILL AND OTHER INTANGIBLE ASSETS, NET

Goodwill

A summary of the activity and balances in goodwill accounts by reporting segment follows:

	Balance as of December 31, 2023	Acquisitions	Divestitures	Adjustments to Acquisitions and Other	Balance as of June 30, 2024
Group 1	$ 7,312.4	$ 1.1	$ —	$ 16.7	$ 7,330.2
Group 2	6,445.5	—	(0.3)	(0.7)	6,444.5
Group 3	2,076.6	15.1	—	(1.5)	2,090.2
Total	$ 15,834.5	$ 16.2	$ (0.3)	$ 14.5	$ 15,864.9

Adjustments to acquisitions during the six months ended June 30, 2024 primarily related to changes in our valuation of property, plant and equipment acquired as a result of obtaining new information regarding the acquisitions that closed in 2023.

Other Intangible Assets, Net

Other intangible assets, net, include values assigned to customer relationships, non-compete agreements and trade names, and are amortized over periods ranging from 1 to 15 years. A summary of the activity and balances by intangible asset type follows:

	Gross Intangible Assets				Accumulated Amortization				
	Balance as of December 31, 2023	Acquisitions	Adjustments and Other	Balance as of June 30, 2024	Balance as of December 31, 2023	Additions Charged to Expense	Adjustments and Other	Balance as of June 30, 2024	Other Intangible Assets, Net as of June 30, 2024
Customer relationships	$ 631.7	$ 3.3	$ (0.5)	$ 634.5	$ (165.7)	$ (31.5)	$ —	$ (197.2)	$ 437.3
Non-compete agreements	30.4	0.9	—	31.3	(15.7)	(3.1)	—	(18.8)	12.5
Other intangible assets	23.2	—	—	23.2	(7.7)	(1.9)	—	(9.6)	13.6
Total	$ 685.3	$ 4.2	$ (0.5)	$ 689.0	$ (189.1)	$ (36.5)	$ —	$ (225.6)	$ 463.4

4. OTHER ASSETS

Prepaid Expenses and Other Current Assets

A summary of prepaid expenses and other current assets as of June 30, 2024 and December 31, 2023 follows:

	2024	2023
Parts and supplies	$ 99.9	$ 97.3
Prepaid expenses	94.3	123.0
Other non-trade receivables	56.2	63.2
Reinsurance receivable	38.7	35.4
Income taxes receivable	29.9	126.3
Prepaid fees for cloud-based hosting arrangements, current	24.4	17.0
Derivative and hedging assets	—	4.2
Other current assets	7.9	6.2
Total	$ 351.3	$ 472.6

Other Assets

A summary of other assets as of June 30, 2024 and December 31, 2023 follows:

	2024	2023
Investments	$ 586.0	$ 469.4
Operating right-of-use lease assets	231.2	238.1
Deferred compensation plan	119.1	112.7
Prepaid fees and capitalized implementation costs for cloud-based hosting arrangements	106.6	67.6
Reinsurance receivable	94.7	92.1
Deferred contract costs and sales commissions	81.3	82.5
Derivative and hedging assets	59.3	74.1
Amounts recoverable for capping, closure and post-closure obligations	23.1	21.9
Deferred financing costs	2.9	3.6
Other	17.4	21.9
Total	$ 1,321.6	$ 1,183.9

5. OTHER LIABILITIES

Other Accrued Liabilities

A summary of other accrued liabilities as of June 30, 2024 and December 31, 2023 follows:

	2024	2023
Accrued payroll and benefits	$ 280.7	$ 350.5
Insurance reserves, current	226.4	216.6
Accrued fees and taxes	188.8	193.5
Accrued dividends	168.0	168.3
Operating right-of-use lease liabilities, current	53.2	54.8
Current tax liabilities	41.8	2.1
Ceded insurance reserves, current	38.7	35.4
Accrued professional fees and legal settlement reserves	13.4	17.9
Derivative and hedging liabilities	2.0	8.3
Other	86.1	124.1
Total	$ 1,099.1	$ 1,171.5

Other Long-Term Liabilities

A summary of other long-term liabilities as of June 30, 2024 and December 31, 2023 follows:

	2024	2023
Operating right-of-use lease liabilities	$ 188.6	$ 194.9
Deferred compensation plan liability	121.2	114.7
Ceded insurance reserves	94.7	92.1
Derivative and hedging liabilities	77.9	71.3
Contingent purchase price and acquisition holdbacks	59.4	59.1
Withdrawal liability - multiemployer pension funds	19.3	19.6
Other	39.1	42.9
Total	$ 600.2	$ 594.6

6. LANDFILL AND ENVIRONMENTAL COSTS

As of June 30, 2024, we owned or operated 208 active landfills with total available disposal capacity estimated to be 5.1 billion in-place cubic yards. Additionally, we had post-closure responsibility for 126 closed landfills.

Accrued Landfill and Environmental Costs

A summary of accrued landfill and environmental liabilities as of June 30, 2024 and December 31, 2023 follows:

	2024	2023
Landfill final capping, closure and post-closure liabilities	$ 2,004.9	$ 1,937.2
Environmental remediation	467.8	485.4
Total accrued landfill and environmental costs	2,472.7	2,422.6
Less: current portion	(140.5)	(141.6)
Long-term portion	$ 2,332.2	$ 2,281.0

Final Capping, Closure and Post-Closure Costs

The following table summarizes the activity in our asset retirement obligation liabilities, which includes liabilities for final capping, closure and post-closure, for the six months ended June 30, 2024 and 2023:

	2024	2023
Asset retirement obligation liabilities, beginning of year	$ 1,937.2	$ 1,786.4
Non-cash additions	29.6	30.7
Acquisitions, net of divestitures and other adjustments	4.1	11.8
Asset retirement obligation adjustments	2.8	(9.7)
Payments	(22.2)	(24.5)
Accretion expense	53.4	48.6
Asset retirement obligation liabilities, end of period	2,004.9	1,843.3
Less: current portion	(74.3)	(76.6)
Long-term portion	$ 1,930.6	$ 1,766.7

We review annually, in the fourth quarter, and update as necessary, our estimates of asset retirement obligation liabilities. However, if there are significant changes in the facts and circumstances related to a site during the year, we will update our assumptions prospectively in the period that we know all the relevant facts and circumstances and make adjustments as appropriate.

Landfill Operating Expenses

In the normal course of business, we incur various operating costs associated with environmental compliance. These costs include, among other things, leachate treatment and disposal, methane gas and groundwater monitoring, systems maintenance, interim cap maintenance, costs associated with the application of daily cover materials, and the legal and administrative costs of ongoing environmental compliance. These costs are expensed as cost of operations in the periods in which they are incurred.

Environmental Remediation Liabilities

We accrue for remediation costs when they become probable and can be reasonably estimated. There can sometimes be a range of reasonable estimates of the costs associated with remediation of a site. In these cases, we use the amount within the range that constitutes our best estimate. If no amount within the range appears to be a better estimate than any other, we use the amount that is at the low end of such range. It is reasonably possible that we will need to adjust the liabilities recorded for remediation to reflect the effects of new or additional information, to the extent such information impacts the costs, timing or duration of the required actions. If we used the reasonably possible high ends of our ranges, our aggregate potential remediation liability as of June 30, 2024 would be approximately $375 million higher than the amount recorded. Future changes in our estimates of the cost, timing or duration of the required actions could have a material adverse effect on our consolidated financial position, results of operations and cash flows.

The following table summarizes the activity in our environmental remediation liabilities for the six months ended June 30, 2024 and 2023:

	2024	2023
Environmental remediation liabilities, beginning of year	$ 485.4	$ 487.5
Payments	(26.7)	(21.2)
Accretion expense (non-cash interest expense)	8.4	9.0
Acquisitions, net of divestitures and other adjustments	0.7	32.4
Environmental remediation liabilities, end of period	467.8	507.7
Less: current portion	(66.2)	(63.4)
Long-term portion	$ 401.6	$ 444.3

Bridgeton Landfill. During the six months ended June 30, 2024, we paid $5.4 million related to management and monitoring of the remediation area for our closed Bridgeton Landfill in Missouri. We continue to work with state and federal regulatory agencies on our remediation efforts. From time to time, this may require us to modify our future operating timeline and procedures, which could result in changes to our expected liability. As of June 30, 2024, the remediation liability recorded for this site was $68.2 million, of which approximately $8 million is expected to be paid during the remainder of 2024.

West Lake Landfill Superfund Site. Our subsidiary Bridgeton Landfill, LLC is one of several currently designated Potentially Responsible Parties for the West Lake Landfill Superfund site (West Lake) in Missouri. On September 27, 2018, the United States Environmental Protection Agency (EPA) issued a Record of Decision Amendment for West Lake that includes a total undiscounted cost estimate of $229 million over a four to five year design and construction timeline. On March 11, 2019, the EPA issued special notice letters under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) to Bridgeton Landfill, LLC and the other currently designated Potentially Responsible Parties to initiate negotiations to implement the remedy. At this time we are neither able to predict the final design of that remedy, nor estimate how much of the future response costs of the site our subsidiary may agree or be required to pay. During any subsequent administrative proceedings or litigation, our subsidiary will vigorously contest liability for the costs of remediating radiologically-impacted materials generated on behalf of the federal government during the Manhattan Project and delivered to the site by an Atomic Energy Commission licensee and its subcontractor. Currently, we believe we are adequately reserved for our expected remediation liability. However, subsequent events related to remedy design, divisibility, or allocation may require us to modify our expected remediation liability.

7. DEBT

The carrying value of our credit facilities, finance leases and long-term debt as of June 30, 2024 and December 31, 2023 is listed in the following table, and is adjusted for unamortized discounts, deferred issuance costs and the unamortized portion of adjustments to fair value recorded in purchase accounting. Original issue discounts, deferred issuance costs, and adjustments to fair value recorded in purchase accounting are amortized to interest expense over the term of the applicable instrument using the effective interest method.

		June 30, 2024			December 31, 2023		
Maturity	Interest Rate	Principal	Adjustments	Carrying Value	Principal	Adjustments	Carrying Value
Credit facilities:							
Uncommitted Credit Facility	Variable	$ —	$ —	$ —	$ —	$ —	$ —
$3.5 billion - August 2026	Variable	182.7	—	182.7	297.1	—	297.1
Term Loan	Variable	—	—	—	500.0	—	500.0
Commercial Paper	Variable	180.0	(0.1)	179.9	496.0	(0.7)	495.3
Senior notes:							
August 2024	2.500	900.0	(0.2)	899.8	900.0	(1.2)	898.8
March 2025	3.200	500.0	(0.5)	499.5	500.0	(0.9)	499.1
November 2025	0.875	350.0	(0.9)	349.1	350.0	(1.2)	348.8
July 2026	2.900	500.0	(1.3)	498.7	500.0	(1.6)	498.4
November 2027	3.375	650.0	(2.1)	647.9	650.0	(2.5)	647.5
May 2028	3.950	800.0	(8.0)	792.0	800.0	(8.9)	791.1
April 2029	4.875	750.0	(7.0)	743.0	750.0	(6.9)	743.1
November 2029	5.000	400.0	(3.8)	396.2	—	—	—
March 2030	2.300	600.0	(4.2)	595.8	600.0	(4.5)	595.5
February 2031	1.450	650.0	(5.8)	644.2	650.0	(6.2)	643.8
February 2032	1.750	750.0	(5.1)	744.9	750.0	(5.4)	744.6
March 2033	2.375	700.0	(6.2)	693.8	700.0	(6.5)	693.5
December 2033	5.000	650.0	(9.5)	640.5	650.0	(8.9)	641.1
April 2034	5.000	800.0	(10.3)	789.7	800.0	(10.7)	789.3
November 2034	5.200	500.0	(5.6)	494.4	—	—	—
March 2035	6.086	181.9	(11.2)	170.7	181.9	(11.5)	170.4
March 2040	6.200	399.9	(3.2)	396.7	399.9	(3.3)	396.6
May 2041	5.700	385.7	(4.6)	381.1	385.7	(4.7)	381.0
March 2050	3.050	400.0	(6.7)	393.3	400.0	(6.8)	393.2
Debentures:							
September 2035	7.400	148.1	(28.2)	119.9	148.1	(28.8)	119.3
Tax-exempt:							
2024 - 2054	3.500 - 4.375	1,439.1	(9.7)	1,429.4	1,289.1	(8.5)	1,280.6
Finance leases:							
2024 - 2063	0.810 - 9.750	276.5	—	276.5	251.3	—	251.3
Total Debt		$ 13,093.9	$ (134.2)	12,959.7	$ 12,949.1	$ (129.7)	12,819.4
Less: current portion				(1,432.9)			(932.3)
Long-term portion				$ 11,526.8			$ 11,887.1

Credit Facilities

Uncommitted Credit Facility

In January 2022, we entered into a $200.0 million unsecured uncommitted revolving credit facility (the Uncommitted Credit Facility). The Uncommitted Credit Facility bears interest at an annual percentage rate to be agreed upon by both parties.

Borrowings under the Uncommitted Credit Facility can be used for working capital, letters of credit, and other general corporate purposes. The agreement governing our Uncommitted Credit Facility requires us to comply with certain covenants. The Uncommitted Credit Facility may be terminated by either party at any time. As of both June 30, 2024 and December 31, 2023, we had no borrowings outstanding under our Uncommitted Credit Facility.

The Credit Facility

In August 2021, we entered into a $3.0 billion unsecured revolving credit facility (as amended, the Credit Facility). Borrowings under the Credit Facility mature in August 2026. As permitted by the Credit Facility, we have the right to request two one-year extensions of the maturity date, but none of the lenders are committed to participate in such extensions. The Credit Facility also includes a feature that allows us to increase availability, at our option, by an aggregate amount of up to $1.0 billion through increased commitments from existing lenders or the addition of new lenders. In October 2023, we completed an upsize of the Credit Facility to $3.5 billion.

In February 2023, we entered into Amendment No. 1 to the Credit Facility to add our subsidiary, USE Canada Holdings, Inc.(the Canadian Borrower), as an additional borrower under the Credit Facility, and provided that the aggregate of (i) all loans to the Canadian Borrower and (ii) all loans denominated in Canadian dollars cannot exceed $500.0 million (the Canadian Sublimit). In October 2023, we entered into Amendment No. 2 to the Credit Facility which increased the Canadian Sublimit to $1.0 billion. The Canadian Sublimit is part of, and not in addition to, the aggregate commitments under the Credit Facility.

Borrowings under the Credit Facility in United States dollars bear interest at a Base Rate, a daily floating SOFR or a term SOFR plus a current applicable margin of 0.910% based on our Debt Ratings (all as defined in the Credit Facility agreement). The Canadian dollar-denominated loans bear interest based on the Canadian Prime Rate or the Canadian Dollar Offered Rate plus a current applicable margin of 0.910% based on our Debt Ratings. As of June 30, 2024 and December 31, 2023, C$249.9 million and C$201.5 million, respectively, were outstanding against the Canadian Sublimit. The weighted average interest rate for borrowings outstanding as of June 30, 2024 was 6.223%.

The Credit Facility is subject to facility fees based on applicable rates defined in the Credit Facility agreement and the aggregate commitment, regardless of usage. The Credit Facility can be used for working capital, capital expenditures, acquisitions, letters of credit and other general corporate purposes. The Credit Facility agreement requires us to comply with financial and other covenants. We may pay dividends and repurchase common stock if we are in compliance with these covenants.

We had $182.7 million and $297.1 million of borrowings outstanding under the Credit Facility as of June 30, 2024 and December 31, 2023, respectively. We had $315.4 million and $336.5 million of letters of credit outstanding under the Credit Facility as of June 30, 2024 and December 31, 2023, respectively. We also had $179.9 million and $495.3 million of principal borrowings outstanding (net of related discount on issuance) under the commercial paper program as of June 30, 2024 and December 31, 2023, respectively. As a result, availability under our Credit Facility was $2,821.9 million and $2,371.2 million as of June 30, 2024 and December 31, 2023, respectively.

Term Loan Facility

On April 29, 2022, we entered into a $1.0 billion term loan facility (the Term Loan Facility) which bears interest at a base rate or a forward-looking SOFR, plus an applicable margin based on our debt ratings. We had $500.0 million of borrowings outstanding under the Term Loan Facility as of December 31, 2023. During the six months ended June 30, 2024, we paid down the remaining balance of the Term Loan Facility.

Commercial Paper Program

We have entered into a commercial paper program for the issuance and sale of unsecured commercial paper in an aggregate principal amount not to exceed $1.5 billion outstanding at any one time. The weighted average interest rate for borrowings outstanding as of June 30, 2024 was 5.515% with a weighted average maturity of 24 days.

We had $180.0 million and $496.0 million in aggregate principal amount of commercial paper issued and outstanding under the program as of June 30, 2024 and December 31, 2023, respectively. In the event of a failed re-borrowing, we currently have availability under our Credit Facility to fund the commercial paper program until it is re-borrowed successfully. Accordingly, we have classified these borrowings as long-term in our consolidated balance sheet as of June 30, 2024.

Senior Notes and Debentures

In March 2023, we issued $400.0 million of 4.875% senior notes due 2029 (the Existing 2029 Notes) and $800.0 million of 5.000% senior notes due 2034. We used the proceeds from the March 2023 notes issuance for general corporate purposes, including the repayment of a portion of amounts outstanding under the Uncommitted Credit Facility, the Commercial Paper Program, the Credit Facility, and the Term Loan Facility. As a result of the Term Loan Facility repayment, we incurred a non-cash loss on the early extinguishment of debt related to the ratable portion of unamortized deferred issuance costs of $0.2 million.

In December 2023, we issued an additional $350.0 million of 4.875% senior notes due 2029 (the New 2029 Notes, and together with the Existing 2029 Notes, the 2029 Notes). After giving effect to the issuance of the New 2029 Notes, $750.0 million in aggregate principal amount of the 2029 Notes is outstanding. The New 2029 Notes are fungible with the Existing 2029 Notes, and taken together, the 2029 Notes are treated as a single series.

In December 2023, we also issued $650.0 million of 5.000% senior notes due 2033 (the 5.000% 2033 Notes). The proceeds of the December 2023 notes issuance were used for general corporate purposes, including the repayment of a portion of amounts outstanding under the Uncommitted Credit Facility, the Commercial Paper Program, the Credit Facility, and the Term Loan Facility.

In June 2024, we issued $400.0 million of 5.000% senior notes due 2029 (the 5.000% 2029 Notes) and $500.0 million of 5.200% senior notes due 2034, (the 5.200% 2034 Notes). We used the proceeds from the June 2024 notes issuance for general corporate purposes, including the repayment of a portion of amounts outstanding under the Commercial Paper Program and the Credit Facility; and repayment of the remaining amount outstanding under the Term Loan Facility and the Uncommitted Credit Facility.

Our senior notes and debentures are general unsecured and unsubordinated obligations and rank equally with our other unsecured obligations.

Interest Rate Swap and Lock Agreements

Our ability to obtain financing through the capital markets is a key component of our financial strategy. Historically, we have managed risk associated with executing this strategy, particularly as it relates to fluctuations in interest rates, by using a combination of fixed and floating rate debt. From time to time, we also have entered into interest rate swap and lock agreements to manage risk associated with interest rates, either to effectively convert specific fixed rate debt to a floating rate (fair value hedges), or to lock interest rates in anticipation of future debt issuances (cash flow hedges).

Cash Flow Hedges

We have historically entered into multiple swap agreements designated as cash flow hedges to manage exposure to fluctuations in interest rates in anticipation of planned future issuances of senior notes. Upon the expected issuance of senior notes, we terminate the interest rate locks and settle with our counterparties. These transactions are accounted for as cash flow hedges.

The fair value of our interest rate locks is determined using standard valuation models with assumptions about interest rates being based on those observed in underlying markets (Level 2 in the fair value hierarchy).

During the six months ended June 30, 2023, we recognized an unrealized gain in other comprehensive loss of $1.7 million, net of tax, related to terminated interest rate locks issued in conjunction with the issuance of our 5.000% notes in March 2023. As of June 30, 2024 and December 31, 2023, our previously terminated interest rate locks were recorded as components of accumulated other comprehensive loss of $14.1 million and $15.9 million, respectively, net of tax. The effective portion of the interest rate locks is amortized as an adjustment to interest expense over the life of the issued debt using the effective interest method. For the three months ended June 30, 2024 and 2023, we recognized losses, net of tax, of $0.9 million and $1.0 million, respectively. For the six months ended June 30, 2024 and 2023, we recognized losses, net of tax, of $1.7 million and $2.0 million, respectively. Over the next 12 months, we expect to amortize $1.1 million, net of tax, from accumulated other comprehensive loss to interest expense as a yield adjustment of our senior notes.

In connection with our acquisition of US Ecology, in the second quarter of 2022, we acquired and novated a floating-to-fixed interest rate swap agreement (the 2022 Interest Rate Swap) with an initial effective date of March 6, 2020, an initial notional amount of $500 million relative to our Term Loan Facility and an initial fair value of $29.1 million. The initial fair value was reclassified into earnings as non-cash interest expense on a systematic basis over the life of the interest rate swap. In June 2024, the Company terminated the 2022 Interest Rate Swap and received $23.7 million in conjunction with this settlement. As of December 31, 2023, the 2022 Interest Rate Swap was recorded at its fair value of $24.3 million and was included in other assets in our consolidated balance sheets.

For the three and six months ended June 30, 2024, we recognized unrealized gains of $1.2 million and $6.3 million, respectively, in accumulated other comprehensive income for the 2022 Interest Rate Swap. For the three and six months ended June 30, 2023, we recognized unrealized gains of $7.3 million and $10.8 million, respectively, in accumulated other comprehensive income for the 2022 Interest Rate Swap. As of December 31, 2023, the 2022 Interest Rate Swap was recorded as a gain within accumulated other comprehensive loss of $4.3 million, net of tax. For the three and six months ended June 30, 2024, we recognized gains, net of tax, of $7.7 million and $10.6 million, respectively. For the three and six months ended June 30, 2023, we recognized gains, net of tax, of $3.2 million and $6.8 million, respectively, related to this amortization.

For further detail regarding the effect of our cash flow hedging on interest expense, refer to Note 11, *Financial Instruments*, of the notes to our unaudited consolidated financial statements in Part I, Item 1 of this Quarterly Report on Form 10-Q.

Derivative Contracts

Contemporaneously with the issuance of our 2.300% notes in February 2020, we amended interest rate lock agreements with an aggregate notional value of $550.0 million, extending the mandatory maturity date from 2020 to 2030, and dedesignated them as cash flow hedges (2020 Extended Interest Rate Locks). Contemporaneously with the issuance of our 2.500% notes in August 2019, we amended interest rate lock agreements with an aggregate notional value of $375.0 million, extending the mandatory maturity date from 2019 to 2024, and dedesignated them as cash flow hedges (2019 Extended Interest Rate Locks and collectively with the 2020 Extended Interest Rate Locks, the Extended Interest Rate Locks). There was no ineffectiveness recognized in the termination of these cash flow hedges. In addition, we entered into interest rate swaps to offset future exposures to fair value fluctuations of the Extended Interest Rate Locks (2019 Offsetting Interest Rate Swap and the 2020 Offsetting Interest Rate Swap, or collectively the Offsetting Interest Rate Swaps). The fair value of these free-standing derivatives was determined using standard valuation models with assumptions about interest rates being based on those observed in underlying markets (Level 2 in the fair value hierarchy).

As of June 30, 2024, the fair value of the Extended Interest Rate Locks were assets of $59.3 million, which were included in other assets in our consolidated balance sheet. As of December 31, 2023, the fair value of the Extended Interest Rate Locks were assets of $54.0 million, which were included in prepaids and other current assets and other assets in our consolidated balance sheets. As of June 30, 2024 and December 31, 2023, the fair value of the Offsetting Interest Rate Swaps were liabilities of $79.9 million and $78.2 million, respectively, which were included in other accrued liabilities and other long-term liabilities in our consolidated balance sheets.

For the three months ended June 30, 2024 and 2023, we recognized losses of $8.0 million and gains of $9.2 million, respectively, on the change in fair value of the Extended Interest Rate Locks with offsetting gains of $7.9 million and losses of $9.4 million, respectively, on the change in fair value of the Offsetting Interest Rate Swaps. For the six months ended June 30, 2024 and 2023, we recognized gains of $5.5 million and losses of $4.6 million, respectively, on the change in fair value of the Extended Interest Rate Locks with offsetting losses of $5.6 million and gains of $3.3 million, respectively, on the change in fair value of the Offsetting Interest Rate Swaps. The changes in fair value were recorded directly in earnings as an adjustment to interest expense in our consolidated statements of income.

Tax-Exempt Financings

As of June 30, 2024 and December 31, 2023, we had $1,429.4 million and $1,280.6 million, respectively, of certain variable rate tax-exempt financings outstanding, with maturities ranging from 2024 to 2054 and from 2024 to 2053, respectively.

In June 2024, the Mission Economic Development Corporation issued, for our benefit, $50 million in principal amount of Solid Waste Disposal Revenue Bonds. The proceeds from the issuances, after deferred issuance costs, were used to fund the acquisition, construction, improvement, installation, and/or equipping of certain solid waste disposal facilities located within Texas.

In both March 2024 and September 2023, the California Municipal Finance Authority issued, for our benefit, $100 million in principal amount of Solid Waste Disposal Revenue Bonds. The proceeds from the issuances, after deferred issuance costs, were used to fund the acquisition, construction, improvement, installation, and/or equipping of certain solid waste disposal facilities located within California.

The initial remarketing period for these tax-exempt financings is 10 years. Our remaining tax-exempt financings are remarketed either quarterly or semiannually by remarketing agents to effectively maintain a variable yield. The holders of the bonds can put them back to the remarketing agents at the end of each interest period. If the remarketing agents are unable to remarket our bonds, the remarketing agents can put the bonds to us. In the event of a failed remarketing, we currently have availability under our Credit Facility to fund these bonds until they are remarketed successfully. Accordingly, we classified these borrowings as long-term in our consolidated balance sheets as of June 30, 2024 and December 31, 2023.

Finance Leases

As of June 30, 2024 and December 31, 2023, we had finance lease liabilities of $276.5 million and $251.3 million, respectively, with maturities ranging from 2024 to 2063 for both periods.

8. INCOME TAXES

Our effective tax rate, exclusive of non-controlling interests, for the three and six months ended June 30, 2024 was 21.7% and 22.9%, respectively. Our effective tax rate, exclusive of non-controlling interests, for the three and six months ended June 30, 2023 was 26.3% and 26.4%, respectively. Our effective tax rate for the three and six months ended June 30, 2024 reflects a benefit of $32.6 million and $41.0 million, respectively, due to our investments in renewable energy assets qualifying for tax credits under Section 48 of the Internal Revenue Code.

For the six months ended June 30, 2024 and 2023, net cash paid for income taxes was $109.3 million and $88.0 million, respectively.

We have deferred tax assets related to state net operating loss carryforwards. We provide a partial valuation allowance due to uncertainty surrounding the future utilization of these carryforwards in the taxing jurisdictions where the loss carryforwards exist. When determining the need for a valuation allowance, we consider all positive and negative evidence, including recent financial results, scheduled reversals of deferred tax liabilities, projected future taxable income and tax planning strategies. The realization of our deferred tax asset for state loss carryforwards ultimately depends upon the existence of sufficient taxable income in the appropriate state taxing jurisdictions in future periods. The weight given to the positive and negative evidence is commensurate with the extent such evidence can be objectively verified. We continue to regularly monitor both positive and negative evidence in determining the ongoing need for a valuation allowance. As of June 30, 2024, the valuation allowance associated with our state loss carryforwards was $43.5 million.

We are subject to income tax in the United States, as well as income tax in multiple state and foreign jurisdictions. Our compliance with income tax rules and regulations is periodically audited by taxing authorities. These authorities may challenge the positions taken in our tax filings. Thus, to provide for certain potential tax exposures, we maintain liabilities for uncertain tax positions for our estimate of the final outcome of these examinations. Our federal statute of limitations is closed through 2019. In addition, we are currently under state examination or administrative review in various jurisdictions for tax years 2012 through 2022.

We believe the recorded liabilities for uncertain tax positions are adequate. However, a significant assessment against us in excess of the liabilities recorded could have a material adverse effect on our consolidated financial position, results of operations and cash flows. As of June 30, 2024, we are unable to estimate the resolution of our gross unrecognized benefits over the next 12 months.

We recognize interest and penalties as incurred within the provision for income taxes in the consolidated statement of income. As of June 30, 2024, we accrued a liability for penalties of $0.3 million and a liability for interest (including interest on penalties) of $12.6 million related to our uncertain tax positions.

9. STOCK REPURCHASES, DIVIDENDS AND EARNINGS PER SHARE

Available Shares

We currently have approximately 11.3 million shares of common stock reserved for future grants under the Republic Services, Inc. 2021 Stock Incentive Plan.

Stock Repurchases

In October 2023, our Board of Directors approved a $3.0 billion share repurchase authorization effective January 1, 2024 and extending through December 31, 2026. Share repurchases under the program may be made through open market purchases or privately negotiated transactions in accordance with applicable federal securities laws. While the Board of Directors has approved the program, the timing of any purchases, the prices and the number of shares of common stock to be purchased will be determined by our management, at its discretion, and will depend upon market conditions and other factors. On a quarterly basis, our Board of Directors reviews the parameters around which we repurchase our shares. The share repurchase program may be extended, suspended or discontinued at any time.

Stock repurchase activity during three and six months ended June 30, 2024 and 2023 follows (in millions, except per share amounts):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
Number of shares repurchased	0.9	—	0.9	—
Amount paid	$ 167.6	$ —	$ 167.6	$ —
Weighted average cost per share	$ 186.24	$ —	$ 186.24	$ —

The average price paid per share, total repurchase costs and approximate maximum dollar value of the shares that may yet be purchased under the plans or programs exclude a 1% excise tax.

As of June 30, 2024 and 2023, no repurchased shares were pending settlement. As of June 30, 2024, the remaining authorized purchase capacity under our October 2023 repurchase program was $2.8 billion.

Dividends

In April 2024, our Board of Directors approved a quarterly dividend of $0.535 per share. Cash dividends declared were $336.5 million for the six months ended June 30, 2024. As of June 30, 2024, we recorded a quarterly dividend payable of $168.0 million to shareholders of record at the close of business on July 2, 2024.

Earnings per Share

Basic earnings per share is computed by dividing net income attributable to Republic Services, Inc. by the weighted average number of common shares (including vested but unissued restricted stock units and performance stock units) outstanding during the period. Diluted earnings per share is based on the combined weighted average number of common shares and common share equivalents outstanding, which include, where appropriate, the unvested restricted stock units (RSUs) and the unvested performance stock units (PSUs) at the expected attainment levels. We use the treasury stock method in computing diluted earnings per share.

Earnings per share for the three and six months ended June 30, 2024 and 2023 are calculated as follows (in thousands, except per share amounts):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
Basic earnings per share:				
Net income attributable to Republic Services, Inc.	$ 511,536	$ 427,398	$ 965,330	$ 811,250
Weighted average common shares outstanding	314,910	316,849	$ 315,102	$ 316,781
Basic earnings per share	$ 1.62	$ 1.35	$ 3.06	$ 2.56
Diluted earnings per share:				
Net income attributable to Republic Services, Inc.	$ 511,536	$ 427,398	$ 965,330	$ 811,250
Weighted average common shares outstanding	314,910	316,849	315,102	316,781
Effect of dilutive securities:				
Unvested RSU awards	115	101	120	88
Unvested PSU awards	211	359	316	357
Weighted average common and common equivalent shares outstanding	315,236	317,309	315,538	317,226
Diluted earnings per share	$ 1.62	$ 1.35	$ 3.06	$ 2.56

During the three and six months ended June 30, 2024 there were no antidilutive securities outstanding. During the three and six months ended June 30, 2023 there were less than 0.1 million antidilutive securities outstanding.

10. CHANGES IN ACCUMULATED OTHER COMPREHENSIVE LOSS BY COMPONENT

A summary of changes in accumulated other comprehensive loss, net of tax, by component, for the six months ended June 30, 2024 follows:

	Cash Flow Hedges	Defined Benefit Pension Items	Foreign Currency Translation	Total
Balance as of December 31, 2023	$ (11.6)	$ 8.9	$ (9.4)	$ (12.1)
Other comprehensive income before reclassifications	6.4	—	5.5	11.9
Amounts reclassified from accumulated other comprehensive loss	(8.9)	—	—	(8.9)
Net current period other comprehensive income	(2.5)	—	5.5	3.0
Balance as of June 30, 2024	$ (14.1)	$ 8.9	$ (3.9)	$ (9.1)

A summary of reclassifications out of accumulated other comprehensive loss for the three and six months ended June 30, 2024 and 2023 follows:

	Three Months Ended June 30,		Six Months Ended June 30,		
	2024	2023	2024	2023	
Details about Accumulated Other Comprehensive Loss Components	Amount Reclassified from Accumulated Other Comprehensive Loss		Amount Reclassified from Accumulated Other Comprehensive Loss		Affected Line Item in the Statement where Net Income is Presented
Gain (loss) on cash flow hedges:					
Terminated interest rate locks	$ (1.2)	$ (1.3)	$ (2.3)	$ (2.7)	Interest expense
2022 interest rate swap	10.4	4.3	14.3	9.2	Interest expense
Total before tax	9.2	3.0	12.0	6.5	
Tax provision	(2.4)	(0.8)	(3.1)	(1.7)	
Total income reclassified into earnings, net of tax	$ 6.8	$ 2.2	$ 8.9	$ 4.8	

11. FINANCIAL INSTRUMENTS

The effect of our hedging relationships and derivative instruments on the consolidated statements of income for the three and six months ended June 30, 2024 and 2023 follows (in millions):

	Classification and amount of gain (loss) recognized in income on hedging relationships and derivative instruments			
	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
	Interest Expense	Interest Expense	Interest Expense	Interest Expense
Total amount of expense line items presented in the consolidated statements of income in which the effects of hedging relationships and derivative instruments are recorded	$ (128.3)	$ (124.4)	$ (267.6)	$ (251.1)
The effects of cash flow hedging relationships in Subtopic 815-20:				
(Loss) gain on cash flow hedging relationships:				
Interest rate swap locks	$ (0.9)	$ (1.0)	$ (1.7)	$ (2.0)
2022 interest rate swap	$ 6.6	$ 1.6	$ 8.0	$ (0.6)
The effects of derivative instruments not in Subtopic 815-20:				
Loss on free-standing derivative instruments:				
Interest rate contract:				
Net loss on change in fair value of free-standing derivative instruments	$ (0.1)	$ (0.2)	$ (0.1)	$ (1.3)

Fair Value Measurements

In measuring fair values of assets and liabilities, we use valuation techniques that maximize the use of observable inputs (Level 1) and minimize the use of unobservable inputs (Level 3). We also use market data or assumptions that we believe market participants would use in pricing an asset or liability, including assumptions about risk when appropriate.

The carrying value for certain of our financial instruments, including cash, accounts receivable, current investments, accounts payable and certain other accrued liabilities, approximates fair value because of their short-term nature. As of June 30, 2024 and December 31, 2023, our assets and liabilities that are measured at fair value on a recurring basis include the following:

	June 30, 2024				
		Fair Value			
	Carrying Amount	Total	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:					
Money market mutual funds	$ 45.1	$ 45.1	$ 45.1	$ —	$ —
Bonds - restricted cash and marketable securities and other assets	77.1	77.1	—	77.1	—
Derivative and hedging assets - other assets	59.3	59.3	—	59.3	—
Total assets	$ 181.5	$ 181.5	$ 45.1	$ 136.4	$ —
Liabilities:					
Derivative and hedging liabilities - other accrued liabilities and other long-term liabilities	$ 79.9	$ 79.9	$ —	$ 79.9	$ —
Contingent consideration - other accrued liabilities and other long-term liabilities	63.8	63.8	—	—	63.8
Total liabilities	$ 143.7	$ 143.7	$ —	$ 79.9	$ 63.8

	December 31, 2023				
		Fair Value			
	Carrying Amount	Total	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:					
Money market mutual funds	$ 43.1	$ 43.1	$ 43.1	$ —	$ —
Bonds - restricted cash and marketable securities and other assets	76.3	76.3	—	76.3	—
Derivative and hedging assets - prepaid and other current assets and other assets	78.3	78.3	—	78.3	—
Total assets	$ 197.7	$ 197.7	$ 43.1	$ 154.6	$ —
Liabilities:					
Derivative and hedging liabilities - other accrued liabilities and other long-term liabilities	$ 79.6	$ 79.6	$ —	$ 79.6	$ —
Contingent consideration - other accrued liabilities and other long-term liabilities	63.6	63.6	—	—	63.6
Total liabilities	$ 143.2	$ 143.2	$ —	$ 79.6	$ 63.6

Total Debt

The carrying value of our total debt was $13.0 billion and $12.8 billion as of June 30, 2024 and December 31, 2023, respectively, and the fair value of our total debt was $12.3 billion and $12.5 billion as of June 30, 2024 and December 31, 2023, respectively. The estimated fair value of our fixed rate senior notes and debentures is based on quoted market prices. The fair value of our remaining notes payable, tax-exempt financings and borrowings under our credit facilities approximates the carrying value because the interest rates are variable. The fair value estimates were based on Level 2 inputs of the fair value hierarchy as of June 30, 2024 and December 31, 2023. See Note 7, *Debt*, for further information related to our debt.

Contingent Consideration

In 2015, we entered into a waste management contract with the County of Sonoma, California to operate the county's waste management facilities. As of June 30, 2024, the Sonoma contingent consideration represents the fair value of $59.2 million payable to the County of Sonoma based on the achievement of future annual tonnage targets through the expected remaining capacity of the landfill. The potential undiscounted amount of all future contingent payments that we could be required to make under the waste management contract is estimated to be between approximately $81 million and $114 million. During the six months ended June 30, 2024, the activity in the contingent consideration liability included accretion, which was offset by concession payments made in the ordinary course of business. There were no changes to the estimate of fair value.

12. SEGMENT REPORTING

Our senior management evaluates, oversees and manages the financial performance of our operations through three field groups, referred to as Group 1, Group 2 and Group 3. Group 1 is our recycling and waste business operating primarily in geographic areas located in the western United States. Group 2 is our recycling and waste business operating primarily in geographic areas located in the southeastern and mid-western United States, the eastern seaboard of the United States, and Canada. Group 3 is our environmental solutions business operating primarily in geographic areas located across the United States and Canada. These groups are presented below as our reportable segments, which each provide integrated environmental services, including but not limited to collection, transfer, recycling, and disposal.

Adjusted EBITDA is the single financial measure our chief operating decision maker (CODM) uses to evaluate operating segment profitability and determine resource allocations.

Summarized financial information concerning our reportable segments for the three months ended June 30, 2024 and 2023 follows:

	Group 1	Group 2	Recycling & Waste Subtotal [1]	Group 3 (Environmental Solutions)	Corporate entities and other	Total
Three Months Ended June 30, 2024						
Gross Revenue	$ 2,090.8	$ 2,004.5	$ 4,095.3	$ 480.5	$ 87.4	$ 4,663.2
Intercompany Revenue	(314.4)	(269.9)	(584.3)	(13.1)	(17.8)	(615.2)
Revenue allocations	33.3	31.1	64.4	5.2	(69.6)	—
Net Revenue	$ 1,809.7	$ 1,765.7	$ 3,575.4	$ 472.6	$ —	$ 4,048.0
Adjusted EBITDA	$ 590.3	$ 555.2	$ 1,145.5	$ 112.3	$ —	$ 1,257.8
Capital Expenditures	$ 136.1	$ 124.1	$ 260.2	$ 26.3	$ 116.9	$ 403.4
Total Assets	$ 13,659.3	$ 10,954.4	$ 24,613.7	$ 4,448.1	$ 2,872.3	$ 31,934.1
Three Months Ended June 30, 2023						
Gross Revenue	$ 1,933.7	$ 1,907.6	$ 3,841.3	$ 419.5	$ 60.6	$ 4,321.4
Intercompany Revenue	(299.4)	(260.0)	(559.4)	(14.6)	(21.5)	(595.5)
Revenue allocations	23.3	22.4	45.7	(6.6)	(39.1)	—
Net Revenue	$ 1,657.6	$ 1,670.0	$ 3,327.6	$ 398.3	$ —	$ 3,725.9
Adjusted EBITDA	$ 527.1	$ 499.2	$ 1,026.3	$ 89.8	$ —	$ 1,116.1
Capital Expenditures	$ 125.9	$ 136.0	$ 261.9	$ 16.9	$ 56.9	$ 335.7
Total Assets	$ 13,024.0	$ 10,780.1	$ 23,804.1	$ 3,971.5	$ 2,047.7	$ 29,823.3

(1) The Recycling & Waste Subtotal represents the combined results of our Group 1 and Group 2 reportable segments.

Summarized financial information concerning our reportable segments for the six months ended June 30, 2024 and 2023 follows:

	Group 1	Group 2	Recycling & Waste Subtotal [1]	Group 3 (Environmental Solutions)	Corporate entities and other	Total
Six Months Ended June 30, 2024						
Gross Revenue	$ 4,108.8	$ 3,917.7	$ 8,026.5	$ 909.5	$ 166.5	$ 9,102.5
Intercompany Revenue	(615.1)	(518.3)	(1,133.4)	(24.5)	(34.8)	(1,192.7)
Revenue allocations	62.5	58.3	120.8	10.9	(131.7)	—
Net Revenue	$ 3,556.2	$ 3,457.7	$ 7,013.9	$ 895.9	$ —	$ 7,909.8
Adjusted EBITDA	$ 1,149.2	$ 1,074.2	$ 2,223.4	$ 198.9	$ —	$ 2,422.3
Capital Expenditures	$ 318.1	$ 257.8	$ 575.9	$ 60.6	$ 281.4	$ 917.9
Total Assets	$ 13,659.3	$ 10,954.4	$ 24,613.7	$ 4,448.1	$ 2,872.3	$ 31,934.1
Six Months Ended June 30, 2023						
Gross Revenue	$ 3,774.0	$ 3,725.9	$ 7,499.9	$ 840.6	$ 128.0	$ 8,468.5
Intercompany Revenue	(586.5)	(502.5)	(1,089.0)	(29.4)	(43.1)	(1,161.5)
Revenue allocations	45.6	43.9	89.5	(4.6)	(84.9)	—
Net Revenue	$ 3,233.1	$ 3,267.3	$ 6,500.4	$ 806.6	$ —	$ 7,307.0
Adjusted EBITDA	$ 1,016.6	$ 964.3	$ 1,980.9	$ 175.3	$ —	$ 2,156.2
Capital Expenditures	$ 247.3	$ 241.8	$ 489.1	$ 38.2	$ 187.0	$ 714.3
Total Assets	$ 13,024.0	$ 10,780.1	$ 23,804.1	$ 3,971.5	$ 2,047.7	$ 29,823.3

(1) The Recycling & Waste Subtotal represents the combined results of our Group 1 and Group 2 reportable segments.

Corporate functions include legal, tax, treasury, information technology, risk management, human resources, closed landfills, and other administrative functions. National Accounts revenue included in Corporate entities and other represents the portion of revenue generated from nationwide and regional contracts in markets outside our operating areas where the associated material handling is subcontracted to local operators. Revenue and overhead costs of Corporate entities and other are either specifically assigned or allocated on a rational and consistent basis among our reportable segments to calculate Adjusted EBITDA.

As presented in the tables below, Adjusted EBITDA reflects certain adjustments for US Ecology, Inc., acquisition, integration and deal costs, (income) losses from unconsolidated equity method investments, losses on extinguishment of debt, and restructuring expenses. This presentation is consistent with how our CODM reviews results of operations to make resource allocation decisions.

Intercompany revenue reflects transactions within and between segments that generally are made on a basis intended to reflect the market value of such services. Capital expenditures for Corporate entities and other primarily include vehicle inventory acquired but not yet assigned to operating locations and facilities.

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
Group 1 Adjusted EBITDA	$ 590.3	$ 527.1	$ 1,149.2	$ 1,016.6
Group 2 Adjusted EBITDA	555.2	499.2	1,074.2	964.3
Group 3 Adjusted EBITDA	112.3	89.8	198.9	175.3
Total Adjusted EBITDA	1,257.8	1,116.1	2,422.3	2,156.2
Other income, net	(0.7)	0.6	(13.3)	(1.9)
Interest income	(1.6)	(1.6)	(3.1)	(3.0)
Interest expense	128.3	124.4	267.6	251.1
Depreciation, amortization and depletion	413.0	358.3	812.2	717.0
Accretion	26.7	24.5	53.4	48.6
Loss (income) from unconsolidated equity method investment	33.8	3.6	42.5	2.7
Loss on extinguishment of debt and other related costs	—	—	—	0.2
Restructuring charges	5.7	15.5	11.5	21.0
US Ecology, Inc. acquisition integration and deal costs	—	10.6	—	18.2
Gain on business divestitures and impairments, net	(1.4)	—	(1.4)	—
Income before income taxes	$ 654.0	$ 580.2	$ 1,252.9	$ 1,102.3

13. REVENUE AND CREDIT LOSSES

Our operations primarily consist of providing environmental services. The following table disaggregates our revenue by service line for the three months ended June 30, 2024 and 2023 (in millions of dollars and as a percentage of revenue):

	Three Months Ended June 30,				Six Months Ended June 30,			
	2024		2023		2024		2023	
Collection:								
Residential	$ 733.4	18.1 %	$ 700.2	18.8 %	$ 1,456.6	18.4 %	$ 1,385.3	18.9 %
Small-container	1,200.9	29.7	1,087.5	29.2	2,389.9	30.2	2,143.9	29.3
Large-container	770.2	19.0	737.5	19.8	1,503.0	19.0	1,439.4	19.7
Other	18.3	0.5	17.8	0.5	36.1	0.5	32.9	0.5
Total collection	2,722.8	67.3	2,543.0	68.3	5,385.6	68.1	5,001.5	68.4
Transfer	457.7		435.2		877.1		836.2	
Less: intercompany	(249.5)		(237.9)		(486.1)		(465.2)	
Transfer, net	208.2	5.1	197.3	5.3	391.0	4.9	371.0	5.1
Landfill	761.2		740.6		1,466.0		1,429.3	
Less: intercompany	(321.0)		(309.6)		(621.4)		(605.7)	
Landfill, net	440.2	10.9	431.0	11.6	844.6	10.7	823.6	11.3
Environmental solutions	489.7		419.7		928.9		849.9	
Less: intercompany	(17.1)		(21.4)		(33.0)		(43.3)	
Environmental solutions, net	472.6	11.7	398.3	10.7	895.9	11.3	806.6	11.0
Other:								
Recycling processing and commodity sales	107.5	2.7	79.5	2.1	203.0	2.6	150.1	2.1
Other non-core	96.7	2.3	76.8	2.0	189.7	2.4	154.2	2.1
Total other	204.2	5.0	156.3	4.1	392.7	5.0	304.3	4.2
Total revenue	$ 4,048.0	100.0 %	$ 3,725.9	100.0 %	$ 7,909.8	100.0 %	$ 7,307.0	100.0 %

Other non-core revenue consists primarily of revenue from National Accounts, which represents the portion of revenue generated from nationwide or regional contracts in markets outside our operating areas where the associated material handling is subcontracted to local operators. Consequently, substantially all of this revenue is offset with related subcontract costs, which are recorded in cost of operations.

See Note 12, *Segment Reporting*, for additional information regarding revenue by reportable segment.

Revenue Recognition

Our service obligations of a long-term nature, e.g., certain collection service contracts, are satisfied over time, and we recognize revenue based on the value provided to the customer during the period. The amount billed to the customer is based on variable elements such as the number of residential homes or businesses for which collection services are provided, the volume of material collected, treated, transported and disposed, and the nature of the material accepted. We do not disclose the value of unsatisfied performance obligations for these contracts as our right to consideration corresponds directly to the value provided to the customer for services completed to date and all future variable consideration is allocated to wholly unsatisfied performance obligations.

Additionally, certain elements of our long-term customer contracts are unknown upon entering into the contract, including the amount that will be billed in accordance with annual price escalation clauses, our fuel recovery fee program and commodity prices. The amount to be billed is often tied to changes in an underlying base index such as a consumer price index or a fuel or commodity index, and revenue can be recognized once the index is established for the period.

Environmental solutions revenue is primarily generated from the fees we charge for the collection, treatment, consolidation, disposal and recycling of hazardous and non-hazardous waste, field and industrial services, equipment rental, emergency response and standby services and in-plant services, such as transportation and logistics, including at our transfer, storage and disposal facilities (TSDF). Activity for this service line varies across markets and reflects the regulatory environment, pricing and disposal alternatives available in any given market. Revenue recognized is variable in nature and primarily based on the volume and type of waste accepted or processed during the period. For certain field and industrial services contracts, we have a right to consideration from our customers in an amount that corresponds directly with the value to the customer of the

Company's performance completed to date. Therefore, we have applied the practical expedient to recognize revenue in the amount to which we have the right to invoice.

Deferred Revenue

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, we recognize revenue at the time we perform a service. In the event that we bill for services in advance of performance, we recognize deferred revenue for the amount billed and subsequently recognize revenue at the time the service is provided. Depending on the nature of the contract, we may also generate revenue through the collection of fuel recovery fees and environmental fees which are designed to recover our internal costs of providing services to our customers.

Substantially all of the deferred revenue recognized as of December 31, 2023 was recognized as revenue during the six months ended June 30, 2024 when the service was performed.

Deferred Contract Costs

We incur certain upfront payments to acquire customer contracts which are recognized as other assets in our consolidated balance sheet, and we amortize the asset over the respective contract life. In addition, we recognize sales commissions that represent an incremental cost of the contract as other assets in our consolidated balance sheets, and we amortize the asset over the average life of the customer relationship. As of June 30, 2024 and December 31, 2023, we recognized $81.3 million and $82.5 million, respectively, of deferred contract costs and capitalized sales commissions. During the three and six months ended June 30, 2024, we amortized $4.0 million and $7.8 million, respectively, of capitalized sales commissions to selling, general and administrative expenses and we amortized $1.0 million and $2.1 million, respectively, of other deferred contract costs as a reduction of revenue. During the three and six months ended June 30, 2023, we amortized $3.7 million and $7.3 million, respectively, of capitalized sales commissions to selling, general and administrative expenses and we amortized $1.4 million and $2.7 million, respectively, of other deferred contract costs as a reduction of revenue.

Credit Losses

Accounts receivable represent receivables from customers for environmental services, including collection and processing of recyclable materials, collection, transfer, and disposal of solid waste, and other environmental solutions. Our receivables are recorded when billed or when the related revenue is earned and represent claims against third parties that will be settled in cash. The carrying value of our receivables, net of the allowance for doubtful accounts and customer credits, represents their estimated net realizable value.

We establish an allowance for doubtful accounts based on various factors including the age of receivables outstanding, historical trends, economic conditions and other information. We also review outstanding balances on an account-specific basis based on the credit risk of the customer. We determined that all of our accounts receivable share similar risk characteristics. We monitor our credit exposure on an ongoing basis and assess whether assets in the pool continue to display similar risk characteristics. We perform ongoing credit evaluations of our customers, but generally do not require collateral to support customer receivables.

The following table reflects the activity in our allowance for doubtful accounts for the six months ended June 30, 2024 and 2023:

	2024	2023
Balance at beginning of year	$ 83.2	$ 51.9
Additions charged to expense	19.9	19.7
Accounts written-off	(20.2)	(5.3)
Balance at end of period	$ 82.9	$ 66.3

14. COMMITMENTS AND CONTINGENCIES

Legal Proceedings

We are subject to extensive and evolving laws and regulations and have implemented safeguards to respond to regulatory requirements. In the normal course of our business, we become involved in legal proceedings. Some may result in fines, penalties or judgments against us, or settlements, which may impact earnings and cash flows for a particular period. Although we cannot predict the ultimate outcome of any legal matter with certainty, we do not believe the outcome of any of our pending legal proceedings will have a material adverse impact on our consolidated financial position, results of operations or cash flows.

As used herein, the term *legal proceedings* refers to litigation and similar claims against us and our subsidiaries, excluding: (1) ordinary course accidents, general commercial liability and workers' compensation claims, which are covered by insurance programs, subject to customary deductibles, and which, together with insured employee health care costs, are discussed in Note 5, *Other Liabilities;* and (2) environmental remediation liabilities, which are discussed in Note 6, *Landfill and Environmental Costs.*

We accrue for legal proceedings when losses become probable and reasonably estimable. We have recorded an aggregate accrual of approximately $15 million relating to our outstanding legal proceedings as of June 30, 2024. As of the end of each applicable reporting period, we review each of our legal proceedings and, where it is probable that a liability has been incurred, we accrue for all probable and reasonably estimable losses. Where we can reasonably estimate a range of losses we may incur regarding such a matter, we record an accrual for the amount within the range that constitutes our best estimate. If we can reasonably estimate a range but no amount within the range appears to be a better estimate than any other, we use the amount that is the low end of such range. If we had used the high ends of such ranges, our aggregate potential liability would be approximately $9 million higher than the amount recorded as of June 30, 2024.

Multiemployer Pension Plans

We participate in multiemployer pension plans that generally provide retirement benefits to participants of contributing employers. We do not administer these plans.

Under current law regarding multiemployer pension plans, our withdrawal (which we consider from time to time) or the mass withdrawal from any under-funded multiemployer pension plan (each, a Withdrawal Event) could require us to make payments to the plan for our proportionate share of the plan's unfunded vested liabilities. During the course of operating our business, we incur Withdrawal Events regarding certain of the multiemployer pension plans in which we participate. We accrue for such events when losses become probable and reasonably estimable.

Cash, Cash Equivalents, Restricted Cash and Restricted Cash Equivalents

Restricted cash and restricted cash equivalents are included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. Beginning-of-period and end-of-period cash, cash equivalents, restricted cash and restricted cash equivalents as presented in the statement of cash flows is reconciled as follows:

	June 30, 2024	December 31, 2023	June 30, 2023	December 31, 2022
Cash and cash equivalents	$ 490.6	$ 140.0	$ 181.6	$ 143.4
Restricted cash and marketable securities	178.0	163.6	149.6	127.6
Less: restricted marketable securities	(76.8)	(76.1)	(58.2)	(56.7)
Cash, cash equivalents, restricted cash and restricted cash equivalents	$ 591.8	$ 227.5	$ 273.0	$ 214.3

Our restricted cash and marketable securities includes amounts pledged to regulatory agencies and governmental entities as financial guarantees of our performance under certain collection, landfill and transfer station contracts and permits, and relating to our final capping, closure and post-closure obligations at our landfills as well as restricted cash and marketable securities related to our insurance obligations.

The following table summarizes our restricted cash and marketable securities:

	June 30, 2024	December 31, 2023
Capping, closure and post-closure obligations	$ 42.8	$ 43.2
Insurance	135.2	120.4
Total restricted cash and marketable securities	$ 178.0	$ 163.6

Off-Balance Sheet Arrangements

We have no off-balance sheet debt or similar obligations, other than short-term operating leases and financial assurances, which are not classified as debt. We have no transactions or obligations with related parties that are not disclosed, consolidated into or reflected in our reported financial position or results of operations. We have not guaranteed any third-party debt.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

You should read the following discussion in conjunction with the unaudited consolidated financial statements and notes thereto included under Part I, Item 1 of this Quarterly Report on Form 10-Q. In addition, you should refer to our audited consolidated financial statements and notes thereto and related *Management's Discussion and Analysis of Financial Condition and Results of Operations* appearing in our Annual Report on Form 10-K for the fiscal year ended December 31, 2023.

Disclosure Regarding Forward-Looking Statements

This Quarterly Report on Form 10-Q contains certain forward-looking information about us that is intended to be covered by the safe harbor for "forward-looking statements" provided by the Private Securities Litigation Reform Act of 1995. Forward-looking statements are statements that are not historical facts. Words such as "guidance," "expect," "will," "may," "anticipate," "plan," "estimate," "project," "intend," "should," "can," "likely," "could," "outlook" and similar expressions are intended to identify forward-looking statements. In particular, information appearing in this "Management's Discussion and Analysis of Financial Condition and Results of Operations" includes forward-looking statements. These statements include information about our plans, strategies, and expectations of future financial performance and prospects. Forward-looking statements are not guarantees of performance. These statements are based upon the current beliefs and expectations of our management and are subject to significant risk and uncertainties that could cause actual results to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot assure you that the expectations will prove to be correct. Among the factors that could cause actual results to differ materially from the expectations expressed in the forward-looking statements are the amount of the financial contribution of our sustainability initiatives, as well as acts of war, riots or terrorism, and the impact of these acts on economic, financial and social conditions in the United States, as well as our dependence on large, long-term collection, transfer and disposal contracts. More information on factors that could cause actual results or events to differ materially from those anticipated is included from time to time in our reports filed with the Securities and Exchange Commission, including our Annual Report on Form 10-K for the year ended December 31, 2023. Additionally, new risk factors emerge from time to time and it is not possible for us to predict all such risk factors, or to assess the impact such risk factors might have on our business. We undertake no obligation to update publicly any forward-looking statements whether as a result of new information, future events or otherwise, except as required by law.

Updated Full-Year 2024 Adjusted Earnings Per Share Guidance

The following is a summary of anticipated adjusted diluted earnings per share for the year ending December 31, 2024. Adjusted diluted earnings per share is not a measure determined in accordance with U.S. GAAP:

	(Anticipated) Year Ending December 31, 2024
Diluted earnings per share	$ 6.10 to 6.15
(Gain) loss on extinguishment of debt and other related costs	(0.02)
Restructuring charges	0.07
Adjusted diluted earnings per share	$ 6.15 to 6.20

We believe that presenting adjusted diluted earnings per share provides an understanding of operational activities before the financial impact of certain items. We use this measure, and believe investors will find it helpful, in understanding the ongoing performance of our operations separate from items that have a disproportionate impact on our results for a particular period. We have incurred comparable charges, costs and recoveries in prior periods, and similar types of adjustments can reasonably be expected to be recorded in future periods. Our definition of adjusted diluted earnings per share may not be comparable to similarly titled measures presented by other companies.

The guidance set forth above constitutes forward-looking information and is not a guarantee of future performance. The guidance is based upon the current beliefs and expectations of our management and is subject to significant risk and uncertainties that could cause actual results to differ materially from those shown above. See "Disclosure Regarding Forward-Looking Statements."

Overview

Republic is one of the largest providers of environmental services in the United States, as measured by revenue. As of June 30, 2024, we operated across the United States and Canada through 362 collection operations, 246 transfer stations, 75 recycling centers, 208 active landfills, 2 treatment, recovery and disposal facilities, 23 treatment, storage and disposal facilities (TSDF), 5 salt water disposal wells 12 deep injection wells, and 1 polymer center. We are engaged in 78 landfill gas-to-energy and renewable energy projects and had post-closure responsibility for 126 closed landfills as of June 30, 2024.

Revenue for the six months ended June 30, 2024 increased by 8.2% to $7,909.8 million compared to $7,307.0 million for the same period in 2023. This change in revenue is due to increases in average yield of 5.8%, increased revenue from acquisitions, net of divestitures of 3.4%, and an increase in recycling processing and commodity sales of 0.4%. Additionally, revenue increased 0.1% due to the impact of the number of workdays during the six months ended June 30, 2024, as compared to the same period in 2023. These increases were partially offset by a decrease in volume of 0.9%, a decrease in environmental solutions revenue of 0.4%, and a decrease in fuel recovery fees of 0.2%.

The following table summarizes our revenue, expenses and operating income for the three and six months ended June 30, 2024 and 2023 (in millions of dollars and as a percentage of revenue):

	Three Months Ended June 30,				Six Months Ended June 30,			
	2024		2023		2024		2023	
Revenue	$ 4,048.0	100.0 %	$ 3,725.9	100.0 %	$ 7,909.8	100.0 %	$ 7,307.0	100.0 %
Expenses:								
Cost of operations	2,382.6	58.8	2,224.4	59.7	4,665.8	59.0	4,393.8	60.1
Depreciation, amortization and depletion of property and equipment	375.5	9.3	326.8	8.8	739.7	9.4	655.1	9.0
Amortization of other intangible assets	18.7	0.5	14.9	0.4	36.5	0.4	30.1	0.4
Amortization of other assets	18.8	0.5	16.6	0.4	36.0	0.4	31.8	0.4
Accretion	26.7	0.7	24.5	0.7	53.4	0.7	48.6	0.7
Selling, general and administrative	407.6	10.1	396.0	10.6	821.7	10.4	775.2	10.6
Gain on business divestitures and impairments, net	(1.4)	—	—	—	(1.4)	—	—	—
Restructuring charges	5.7	—	15.5	0.4	11.5	0.1	21.0	0.3
Operating income	$ 813.8	20.1 %	$ 707.2	19.0 %	$ 1,546.6	19.6 %	$ 1,351.4	18.5 %

Our pre-tax income was $654.0 million and $1,252.9 million for the three and six months ended June 30, 2024, respectively, compared to $580.2 million and $1,102.3 million for the same periods in 2023, respectively. Our net income attributable to Republic Services, Inc. was $511.5 million and $965.3 million for the three and six months ended June 30, 2024, or $1.62 and $3.06 per diluted share, respectively compared to $427.4 million and $811.2 million, or $1.35 and $2.56 per diluted share for the same periods in 2023, respectively.

During each of the three and six months ended June 30, 2024 and 2023, we recorded a number of charges, other expenses and benefits that impacted our pre-tax income, tax expense, net income attributable to Republic Services, Inc. (net income – Republic) and diluted earnings per share as noted in the following table (in millions, except per share data). Additionally, see our *Results of Operations* discussion in this *Management's Discussion and Analysis of Financial Condition and Results of Operations* for a discussion of other items that impacted our earnings during the three and six months ended June 30, 2024 and 2023.

	Three Months Ended June 30, 2024				Three Months Ended June 30, 2023			
	Pre-tax Income	Tax Impact[(1)]	Net Income - Republic	Diluted Earnings per Share	Pre-tax Income	Tax Impact[(1)]	Net Income - Republic	Diluted Earnings per Share
As reported	$ 654.0	$ 142.5	$ 511.5	$ 1.62	$ 580.2	$ 152.8	$ 427.4	$ 1.35
(Gain) loss on extinguishment of debt and other related costs	(7.8)	(2.1)	(5.7)	(0.02)	—	—	—	—
Restructuring charges	5.7	1.5	4.2	0.01	15.5	4.0	11.5	0.04
(Gain) loss on business divestitures and impairments, net[(2)]	(1.4)	(0.3)	(1.1)	—	—	—	—	—
US Ecology acquisition integration and deal costs	—	—	—	—	10.6	2.8	7.8	0.02
Total adjustments	(3.5)	(0.9)	(2.6)	(0.01)	26.1	6.8	19.3	0.06
As adjusted	$ 650.5	$ 141.6	$ 508.9	$ 1.61	$ 606.3	$ 159.6	$ 446.7	$ 1.41

	Six Months Ended June 30, 2024				Six Months Ended June 30, 2023			
	Pre-tax Income	Tax Impact[1]	Net Income - Republic	Diluted Earnings per Share	Pre-tax Income	Tax Impact[1]	Net Income - Republic	Diluted Earnings per Share
As reported	$ 1,252.9	$ 287.6	$ 965.3	$ 3.06	$ 1,102.3	$ 291.1	$ 811.2	$ 2.56
(Gain) loss on extinguishment of debt and other related costs [3]	(7.8)	(2.1)	(5.7)	(0.02)	0.2	—	0.2	—
Restructuring charges	11.5	2.9	8.6	0.02	21.0	5.4	15.6	0.05
(Gain) loss on business divestitures and impairments, net[2]	(1.4)	(0.3)	(1.1)	—	—	—	—	—
US Ecology acquisition integration and deal costs	—	—	—	—	18.2	4.8	13.4	0.04
Total adjustments	2.3	0.5	1.8	—	39.4	10.2	29.2	0.09
As adjusted	$ 1,255.2	$ 288.1	$ 967.1	$ 3.06	$ 1,141.7	$ 301.3	$ 840.4	$ 2.65

(1) The income tax effect related to our adjustments includes both the current and deferred income tax impact and is individually calculated based on the statutory rates applicable to each adjustment.

(2) The aggregate impact to adjusted diluted earnings per share totals to less than $0.01 for the three and six months ended June 30, 2024.

(3) The aggregate impact to adjusted diluted earnings per share totals to less than $0.01 for the six months ended June 30, 2023.

We believe that presenting adjusted pre-tax income, adjusted tax impact, adjusted net income – Republic, and adjusted diluted earnings per share, which are not measures determined in accordance with U.S. GAAP, provides an understanding of operational activities before the financial impact of certain items. We use these measures, and believe investors will find them helpful, in understanding the ongoing performance of our operations separate from items that have a disproportionate impact on our results for a particular period. We have incurred comparable charges, costs and recoveries in prior periods, and similar types of adjustments can reasonably be expected to be recorded in future periods. Our definitions of adjusted pre-tax income, adjusted tax impact, adjusted net income – Republic, and adjusted diluted earnings per share may not be comparable to similarly titled measures presented by other companies. Further information on each of these adjustments is included below.

(Gain) loss on extinguishment of debt and other related costs. During the three and six months ended June 30, 2024, we recognized a gain of $7.8 million attributable to the early settlement of certain cash flow hedges related to the Term Loan Facility. The gain was recognized as a reduction of interest expense. During the six months ended June 30, 2023, we incurred a loss on the early extinguishment of debt related to the early repayment of a portion of our Term Loan Facility. We incurred non-cash charges related to the proportional share of unamortized deferred issuance costs of $0.2 million.

Restructuring charges. During the three and six months ended June 30, 2024, we incurred restructuring charges of $5.7 million and $11.5 million, respectively, and during the three and six months ended June 30, 2023, we incurred restructuring charges of $15.5 million and $21.0 million, respectively. The 2024 charges related to the redesign of our asset management, and customer and order management software systems. Of the 2023 charges, $9.4 million related to the early termination of certain leases and $6.1 million related to the redesign of our asset management, and customer and order management software systems. During the six months ended June 30, 2024 and 2023, we paid $9.9 million and $26.1 million, respectively, related to these restructuring efforts.

During the remainder of 2024, we expect to incur additional restructuring charges of approximately $20 million, primarily related to the continued redesign of our asset management, and customer and order management software systems. Substantially all of these restructuring charges will be recorded in Corporate entities and other.

(Gain) loss on business divestitures and impairments, net. During the three and six months ended June 30, 2024, we recorded a net gain on business divestitures and impairments of $1.4 million. During the three and six months ended June 30, 2023, we did not recognize a (gain) loss on business divestitures and impairments, net.

US Ecology, Inc. acquisition integration and deal costs. During the three and six months ended June 30, 2023, we incurred acquisition integration and deal costs of $10.6 million and $18.2 million, respectively, in connection with the acquisition of US Ecology, which included certain costs to integrate the business. The acquisition closed on May 2, 2022. Our integration of the business was substantially complete as of December 31, 2023.

Results of Operations

Revenue

We generate revenue by providing environmental services to our customers, including the collection and processing of recyclable materials, the collection, treatment, consolidation, transfer and disposal of hazardous and non-hazardous waste and other environmental solutions. Our residential, small-container and large-container collection operations in some markets are based on long-term contracts with municipalities. Certain of our municipal contracts have annual price escalation clauses that are tied to changes in an underlying base index such as a consumer price index. We generally provide small-container and large-container collection services to customers under contracts with terms up to three years. Our transfer stations and landfills generate revenue from disposal or tipping fees charged to third parties. Our recycling centers generate revenue from tipping fees charged to third parties and the sale of recycled commodities. Our revenue from environmental solutions primarily consists of (1) fees we charge for the collection, treatment, transfer and disposal of hazardous and non-hazardous waste, (2) field and industrial services, (3) equipment rental, (4) emergency response and standby services, (5) in-plant services, such as transportation and logistics, including at our TSDFs and (6) in-plant services such as high-pressure cleaning, tank cleaning, decontamination, remediation, transportation, spill cleanup and emergency response at refineries, chemical, steel and automotive plants and other governmental, commercial and industrial facilities. Other non-core revenue consists primarily of revenue from National Accounts, which represents the portion of revenue generated from nationwide or regional contracts in markets outside our operating areas where the associated material handling is subcontracted to local operators. Consequently, substantially all of this revenue is offset with related subcontract costs, which are recorded in cost of operations.The following table reflects our revenue by service line for the three and six months ended June 30, 2024 and 2023 (in millions of dollars and as a percentage of revenue):

	Three Months Ended June 30,				Six Months Ended June 30,			
	2024		2023		2024		2023	
Collection:								
Residential	$ 733.4	18.1 %	$ 700.2	18.8 %	$ 1,456.6	18.4 %	$ 1,385.3	18.9 %
Small-container	1,200.9	29.7	1,087.5	29.2	2,389.9	30.2	2,143.9	29.3
Large-container	770.2	19.0	737.5	19.8	1,503.0	19.0	1,439.4	19.7
Other	18.3	0.5	17.8	0.5	36.1	0.5	32.9	0.5
Total collection	2,722.8	67.3	2,543.0	68.3	5,385.6	68.1	5,001.5	68.4
Transfer	457.7		435.2		877.1		836.2	
Less: intercompany	(249.5)		(237.9)		(486.1)		(465.2)	
Transfer, net	208.2	5.1	197.3	5.3	391.0	4.9	371.0	5.1
Landfill	761.2		740.6		1,466.0		1,429.3	
Less: intercompany	(321.0)		(309.6)		(621.4)		(605.7)	
Landfill, net	440.2	10.9	431.0	11.6	844.6	10.7	823.6	11.3
Environmental solutions	489.7		419.7		928.9		849.9	
Less: intercompany	(17.1)		(21.4)		(33.0)		(43.3)	
Environmental solutions, net	472.6	11.7	398.3	10.7	895.9	11.3	806.6	11.0
Other:								
Recycling processing and commodity sales	107.5	2.7	79.5	2.1	203.0	2.6	150.1	2.1
Other non-core	96.7	2.3	76.8	2.0	189.7	2.4	154.2	2.1
Total other	204.2	5.0	156.3	4.1	392.7	5.0	304.3	4.2
Total revenue	$ 4,048.0	100.0 %	$ 3,725.9	100.0 %	$ 7,909.8	100.0 %	$ 7,307.0	100.0 %

The following table reflects changes in components of our revenue, as a percentage of total revenue, for the three and six months ended June 30, 2024 and 2023:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
Average yield	5.5 %	5.9 %	5.8 %	6.2 %
Fuel recovery fees	—	(0.7)	(0.2)	0.4
Total price	5.5	5.2	5.6	6.6
Volume	(0.8)	0.4	(0.9)	0.9
Change in workdays	—	—	0.1	0.2
Recycling processing and commodity sales	0.5	(1.1)	0.4	(1.1)
Environmental solutions	0.4	0.2	(0.4)	0.4
Total internal growth	5.6	4.7	4.8	7.0
Acquisitions / divestitures, net	3.0	4.4	3.4	7.5
Total	8.6 %	9.1 %	8.2 %	14.5 %
Core price	6.8 %	7.3 %	6.9 %	7.7 %

Average yield is defined as revenue growth from the change in average price per unit of service, expressed as a percentage. Core price is defined as price increases to our customers and fees, excluding fuel recovery fees, net of price decreases to retain customers. We also measure changes in core price, average yield and volume as a percentage of related-business revenue, defined as total revenue excluding recycled commodities, fuel recovery fees and environmental solutions revenue, to determine the effectiveness of our pricing and organic growth strategies.

The following table reflects core price, average yield and volume as a percentage of related-business revenue for the three and six months ended June 30, 2024 and 2023:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
	As a % of Related Business		As a % of Related Business	
Core price	8.1 %	8.8 %	8.3 %	9.1 %
Average yield	6.6 %	7.1 %	7.0 %	7.3 %
Volume	(1.0)%	0.5 %	(1.0)%	1.1 %

During the three and six months ended June 30, 2024, we experienced the following changes in our revenue as compared to the same period in 2023:

- Average yield increased revenue by 5.5% and 5.8% for the three and six months ended June 30, 2024, respectively, due to positive pricing changes in all lines of business.
- The fuel recovery fee program, which mitigates our exposure to increases in fuel prices, decreased revenue by 0.2% for the six months ended June 30, 2024, due to a decrease in fuel prices compared to the same period in 2023.
- Volume decreased revenue by 0.8% and 0.9% during the three and six months ended June 30, 2024, respectively, primarily due to a decline in volume in our residential, small-container and large-container collection lines of business as well as volume declines in our landfill and transfer lines of business. The decline in revenue in our large-container collection line of business was partially driven by a slowing in construction related activity. The decline in our residential and small-container lines of business is primarily attributable to certain municipal contract losses and broker-related business.

  The decline in volume in our landfill line of business is primarily attributable to decreased special waste and construction and demolition volumes, partially offset by increased solid waste volumes.
- Revenue increased by 0.1% due to the impact of the number of workdays during the six months ended June 30, 2024 as compared to the same period in 2023, which drove an increase in volumes in our large-container, landfill, and transfer lines of business.
- Recycling processing and commodity sales increased revenue by 0.5% and 0.4% during the three and six months ended June 30, 2024 primarily due to an increase in overall commodity prices as compared to the same period in 2023. The average price for recycled commodities at our recycling centers, excluding glass and organics, for the three and

six months ended June 30, 2024 was $173 and $163 per ton, respectively, compared to $119 and $112 per ton for the same period in 2023.

Changing market demand for recycled commodities causes volatility in commodity prices. At current volumes and mix of materials, we believe a $10 per ton change in the price of recycled commodities would change both annual revenue and operating income by approximately $10 million.

- Environmental solutions increased revenue by 0.4% during the three months ended June 30, 2024, primarily due to price increases. Environmental solutions decreased revenue by 0.4% during the six months ended June 30, 2024, primarily due to rig count declines impacting the upstream E&P business and lower event volumes when compared to the same period in 2023, partially offset by price increases.
- Acquisitions, net of divestitures, increased revenue by 3.0% and 3.4% during the three and six months ended June 30, 2024, respectively, reflecting the results of our continued growth strategy of acquiring environmental services companies that complement and expand our existing business platform.

Cost of Operations

Cost of operations includes labor and related benefits, which consists of salaries and wages, health and welfare benefits, incentive compensation and payroll taxes. It also includes transfer and disposal costs representing tipping fees paid to third party disposal facilities and transfer stations; maintenance and repairs relating to our vehicles, equipment and containers, including related labor and benefit costs; transportation and subcontractor costs, which include costs for independent haulers that transport our waste to disposal facilities and costs for local operators that provide waste handling services associated with our National Accounts in markets outside our standard operating areas; fuel, which includes the direct cost of fuel used by our vehicles, net of fuel tax credits; disposal fees and taxes, consisting of landfill taxes, host community fees and royalties; landfill operating costs, which includes financial assurance, leachate disposal, remediation charges and other landfill maintenance costs; risk management costs, which include insurance premiums and claims; cost of goods sold, which includes material costs paid to suppliers; and other, which includes expenses such as facility operating costs, equipment rent and gains or losses on sale of assets used in our operations.

The following table summarizes the major components of our cost of operations for the three and six months ended June 30, 2024 and 2023 (in millions of dollars and as a percentage of revenue):

	Three Months Ended June 30,				Six Months Ended June 30,			
	2024		2023		2024		2023	
Labor and related benefits	$ 809.2	20.0 %	$ 750.8	20.1 %	$ 1,598.6	20.2 %	$ 1,488.9	20.4 %
Transfer and disposal costs	288.4	7.1	270.3	7.3	552.1	7.0	519.9	7.1
Maintenance and repairs	369.6	9.1	351.8	9.4	725.7	9.2	678.5	9.3
Transportation and subcontract costs	300.8	7.4	291.4	7.8	580.6	7.3	576.6	7.9
Fuel	121.4	3.0	125.2	3.4	247.0	3.1	269.5	3.7
Disposal fees and taxes	89.9	2.2	89.1	2.4	174.1	2.2	172.8	2.4
Landfill operating costs	95.7	2.4	84.3	2.3	186.4	2.4	165.9	2.3
Risk management	101.7	2.5	94.6	2.5	197.5	2.5	187.6	2.5
Other	205.9	5.1	166.9	4.5	403.8	5.1	334.1	4.5
Total cost of operations	$ 2,382.6	58.8 %	$ 2,224.4	59.7 %	$ 4,665.8	59.0 %	$ 4,393.8	60.1 %

These cost categories may change from time to time and may not be comparable to similarly titled categories presented by other companies. As such, you should take care when comparing our cost of operations by component to that of other companies and of ours for prior periods.

The most significant items impacting our cost of operations during the three and six months ended June 30, 2024 and 2023 are summarized below:

- Labor and related benefits increased in aggregate dollars due to higher hourly and salaried wages as a result of annual merit increases. Acquisition-related growth also contributed to the increase in labor and related benefits.
- Transfer and disposal costs increased in aggregate dollars primarily due to acquisition activity and higher disposal rates.

  During the three and six months ended June 30, 2024, approximately 67%, of the total solid waste volume we collected was disposed at landfill sites that we owned or operated (internalization), as compared to 68% for the same periods in 2023.

- Maintenance and repairs expense increased in aggregate dollars due to higher hourly wages as a result of annual merit increases, an increase in third-party maintenance, and parts inflation. Acquisition-related growth also contributed to the increase in maintenance and repairs expense.
- Transportation and subcontract costs increased in aggregate dollars due to increases in subcontract volumes and transportation rates.
- Our fuel costs decreased due to a decrease in the average diesel fuel price per gallon. The national average diesel fuel price per gallon for the three and six months ended June 30, 2024 was $3.86 and $3.91, respectively, as compared to $3.94 and $4.18, respectively, for the same periods in 2023.

  At current consumption levels, we believe a twenty-cent per gallon change in the price of diesel fuel would change our fuel costs by approximately $27 million per year. Offsetting these changes in fuel expense would be changes in our fuel recovery fee charged to our customers. At current participation rates, a twenty-cent per gallon change in the price of diesel fuel would change our fuel recovery fee by approximately $36 million per year.
- Landfill operating costs increased primarily due to increased leachate transportation and maintenance on our gas extraction systems due in part to increased rainfall in select geographic regions.
- Risk management expenses increased in aggregate dollars primarily due to unfavorable claims development in our auto liability program as well as higher premium costs.
- Other costs of operations increased due to increased occupancy and facility related expenses as well as acquisition-related growth.

Depreciation, Amortization and Depletion of Property and Equipment

The following table summarizes depreciation, amortization and depletion of property and equipment for the three and six months ended June 30, 2024 and 2023 (in millions of dollars and as a percentage of revenue):

	Three Months Ended June 30,				Six Months Ended June 30,			
	2024		2023		2024		2023	
Depreciation and amortization of property and equipment	$ 244.4	6.0 %	$ 214.5	5.8 %	$ 488.8	6.2 %	$ 430.1	5.9 %
Landfill depletion and amortization	131.1	3.3	112.3	3.0	250.9	3.2	225.0	3.1
Depreciation, amortization and depletion expense	$ 375.5	9.3 %	$ 326.8	8.8 %	$ 739.7	9.4 %	$ 655.1	9.0 %

Depreciation and amortization of property and equipment increased for the three and six months ended June 30, 2024 primarily due to assets added through acquisitions.

Landfill depletion and amortization expense increased for the three and six months ended June 30, 2024 due to an increase in our overall average depletion rate.

Amortization of Other Intangible Assets

Amortization of other intangible assets primarily relates to customer relationships and, to a lesser extent, non-compete agreements. Expenses for amortization of other intangible assets were $18.7 million and $36.5 million, or 0.5% of revenue, for the three and six months ended June 30, 2024, respectively, compared to $14.9 million and $30.1 million, or 0.4% of revenue, respectively, for the same respective periods in 2023. Amortization expense increased due to assets added through acquisition activity.

Amortization of Other Assets

Our other assets primarily relate to the prepayment of fees and capitalized implementation costs associated with cloud-based hosting arrangements. Expenses for amortization of other assets were $18.8 million and $36.0 million, or 0.5% of revenue, respectively, for the three and six months ended June 30, 2024, compared to $16.6 million and $31.8 million, or 0.4% of revenue, respectively, for the same respective periods in 2023. Amortization expense increased due to an increase in fees for cloud-based hosting arrangements.

Accretion Expense

Accretion expense was $26.7 million and $53.4 million, or 0.7% of revenue, for the three and six months ended June 30, 2024, respectively, compared to $24.5 million and $48.6 million, or 0.7% of revenue, respectively, for the same respective periods in 2023.

Selling, General and Administrative Expenses

Selling, general and administrative expenses include salaries, health and welfare benefits, and incentive compensation for corporate and field general management, field support functions, sales force, accounting and finance, legal, management information systems, and clerical and administrative departments. Other expenses include rent and office costs, fees for professional services provided by third parties, legal settlements, marketing, investor and community relations services, directors' and officers' insurance, general employee relocation, travel, entertainment and bank charges. Restructuring charges are excluded from selling, general and administrative expenses and are discussed separately.

The following table summarizes our selling, general and administrative expenses for the three and six months ended June 30, 2024 and 2023 (in millions of dollars and as a percentage of revenue):

	Three Months Ended June 30,				Six Months Ended June 30,			
	2024		2023		2024		2023	
Salaries and related benefits	$ 276.1	6.8 %	$ 264.0	7.1 %	$ 555.7	7.0 %	$ 516.5	7.1 %
Provision for doubtful accounts	12.5	0.3	11.8	0.3	19.9	0.3	19.7	0.3
Other	119.0	3.0	109.6	2.9	246.1	3.1	220.8	3.0
Subtotal	407.6	10.1	385.4	10.3	821.7	10.4	757.0	10.4
US Ecology, Inc. acquisition integration and deal costs	—	—	10.6	0.3	—	—	18.2	0.2
Total selling, general and administrative expenses	$ 407.6	10.1 %	$ 396.0	10.6 %	$ 821.7	10.4 %	$ 775.2	10.6 %

These cost categories may change from time to time and may not be comparable to similarly titled categories presented by other companies. As such, you should take care when comparing our selling, general and administrative expenses by cost component to those of other companies and of ours for prior periods.

The most significant items affecting our selling, general and administrative expenses during the three and six months ended June 30, 2024 and 2023 are summarized below:

- Salaries and related benefits increased in aggregate dollars primarily due to higher wages and benefits resulting from annual merit increases as well as acquisition-related growth.
- Provision for doubtful accounts increased in aggregate dollars. As of June 30, 2024, our days sales outstanding were 40.9, or 30.2 days net of deferred revenue, compared to 42.5, or 31.1 days net of deferred revenue, as of June 30, 2023.
- Other selling, general and administrative expenses increased for the three and six months ended June 30, 2024, primarily due to an increase in professional fees and acquisition-related growth, partially offset by a favorable legal settlement.
- We incurred various acquisition integration and deal costs in connection with the acquisition of US Ecology. During the three and six months ended June 30, 2023, these charges totaled $10.6 million and $18.2 million, respectively. The 2023 costs primarily related to the integration of certain software systems as well as rebranding of the business. The acquisition closed on May 2, 2022. Our integration of the business was substantially complete as of December 31, 2023.

(Gain) Loss on Business Divestitures and Impairments, Net

We strive to have a number one or number two market position in each of the markets we serve, or have a clear path on how we will achieve a leading market position over time. Where we cannot establish a leading market position, or where operations are not generating acceptable returns, we may decide to divest of certain assets and reallocate resources to other markets. Business divestitures could result in gains, losses or impairment charges that may be material to our results of operations in a given period.

During the three and six months ended June 30, 2024, we recorded a net gain on business divestitures and impairments of $1.4 million. During the three and six months ended June 30, 2023 we did not recognize a net gain (loss) on business divestitures and impairments.

Restructuring Charges

For a discussion of Restructuring Charges incurred during the three and six months ended June 30, 2024 and 2023, see *Overview* of this *Management's Discussion and Analysis of Financial Condition and Results of Operations.*

Interest Expense

The following table provides the components of interest expense, including accretion of debt discounts and accretion of discounts primarily associated with environmental and risk insurance liabilities assumed in acquisitions, for the three and six months ended June 30, 2024 and 2023 (in millions of dollars):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
Interest expense on debt	$ 117.2	$ 105.6	$ 236.0	$ 208.4
Non-cash interest	12.9	20.4	34.9	45.1
Less: capitalized interest	(1.8)	(1.6)	(3.3)	(2.4)
Total interest expense	$ 128.3	$ 124.4	$ 267.6	$ 251.1

Total interest expense for the three and six months ended June 30, 2024 increased primarily due to an increase in the overall principal balance of our fixed rate debt portfolio as a result of issuances of new senior notes and tax-exempt financings. This increase was partially offset by a gain of $7.8 million attributable to the early settlement of certain cash flow hedges related to the Term Loan Facility. The gain was recognized as a reduction of non-cash interest expense.

For the six months ended June 30, 2024 and 2023, cash paid for interest, excluding net swap settlements for our floating-to-fixed interest rate swap, was $238.1 million and $203.6 million, respectively.

As of June 30, 2024, we had $1,551.8 million of principal floating rate debt. If interest rates increased or decreased by 100 basis points on our floating rate debt, annualized interest expense and net cash payments for interest would increase or decrease by approximately $16 million.

(Gain) Loss on Extinguishment of Debt and Other Related Costs

During both the three and six months ended June 30, 2024, we recognized a gain of $7.8 million attributable to the early settlement of certain cash flow hedges related to the Term Loan Facility. During the six months ended June 30, 2023, we incurred a loss on the early extinguishment of debt related to the early repayment of a portion of our Term Loan Facility. We incurred non-cash charges related to the proportional share of unamortized deferred issuance costs of $0.2 million.

Income Taxes

Our effective tax rate, exclusive of non-controlling interests, for the three and six months ended June 30, 2024 was 21.7% and 22.9%, respectively. Our effective tax rate, exclusive of non-controlling interests, for the three and six months ended June 30, 2023 was 26.3% and 26.4%, respectively.

Net cash paid for income taxes was $109.3 million and $88.0 million for the six months ended June 30, 2024 and 2023, respectively.

Our effective tax rate for the three and six months ended June 30, 2024 reflects a benefit of $32.6 million and $41.0 million, respectively, due to our investments in renewable energy assets qualifying for tax credits under Section 48 of the Internal Revenue Code.

For additional discussion and detail regarding our income taxes, see Note 8, *Income Taxes*, to our unaudited consolidated financial statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q.

Reportable Segments

Our senior management evaluates, oversees and manages the financial performance of our operations through three field groups, referred to as Group 1, Group 2 and Group 3. Group 1 is our recycling and waste business operating primarily in geographic areas located in the western United States. Group 2 is our recycling and waste business operating primarily in geographic areas located in the southeastern and mid-western United States, the eastern seaboard of the United States, and Canada. Group 3 is our environmental solutions business operating primarily in geographic areas located across the United States and Canada. These groups are presented below as our reportable segments, which each provide integrated environmental services, including but not limited to collection, transfer, recycling and disposal.

Corporate entities and other include legal, tax, treasury, information technology, risk management, human resources, closed landfills, and other administrative functions. National Accounts revenue included in Corporate entities and other represents the portion of revenue generated from nationwide and regional contracts in markets outside our operating areas where the associated material handling is subcontracted to local operators. Consequently, substantially all of this revenue is offset with related subcontract costs, which are recorded in cost of operations. Revenue and overhead costs of Corporate entities and other are either specifically assigned or allocated on a rational and consistent basis among our reportable segments to calculate Adjusted EBITDA.

Adjusted EBITDA is the single financial measure our chief operating decision maker (CODM) uses to evaluate operating segment profitability and determine resource allocations. Summarized financial information regarding our reportable segments for the three months ended June 30, 2024 and 2023 (in millions of dollars) follows. For totals as well as further detail regarding our reportable segments and the adjustments used to calculate Adjusted EBITDA for each segment, see Note 12, *Segment Reporting*, of the notes to our unaudited consolidated financial statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q.

	Group 1	Group 2	Recycling & Waste Subtotal (1)	Group 3 (Environmental Solutions)	Corporate entities and other	Total
Three Months Ended June 30, 2024						
Gross Revenue	$ 2,090.8	$ 2,004.5	$ 4,095.3	$ 480.5	$ 87.4	$ 4,663.2
Intercompany Revenue	(314.4)	(269.9)	(584.3)	(13.1)	(17.8)	(615.2)
Revenue allocations	33.3	31.1	64.4	5.2	(69.6)	—
Net Revenue	$ 1,809.7	$ 1,765.7	$ 3,575.4	$ 472.6	$ —	$ 4,048.0
Adjusted EBITDA	$ 590.3	$ 555.2	$ 1,145.5	$ 112.3	$ —	$ 1,257.8
Capital Expenditures	$ 136.1	$ 124.1	$ 260.2	$ 26.3	$ 116.9	$ 403.4
Total Assets	$ 13,659.3	$ 10,954.4	$ 24,613.7	$ 4,448.1	$ 2,872.3	$ 31,934.1
Three Months Ended June 30, 2023						
Gross Revenue	$ 1,933.7	$ 1,907.6	$ 3,841.3	$ 419.5	$ 60.6	$ 4,321.4
Intercompany Revenue	(299.4)	(260.0)	(559.4)	(14.6)	(21.5)	(595.5)
Revenue allocations	23.3	22.4	45.7	(6.6)	(39.1)	—
Net Revenue	$ 1,657.6	$ 1,670.0	$ 3,327.6	$ 398.3	$ —	$ 3,725.9
Adjusted EBITDA	$ 527.1	$ 499.2	$ 1,026.3	$ 89.8	$ —	$ 1,116.1
Capital Expenditures	$ 125.9	$ 136.0	$ 261.9	$ 16.9	$ 56.9	$ 335.7
Total Assets	$ 13,024.0	$ 10,780.1	$ 23,804.1	$ 3,971.5	$ 2,047.7	$ 29,823.3

(1) The Recycling & Waste Subtotal represents the combined results of our Group 1 and Group 2 reportable segments.

	Group 1	Group 2	Recycling & Waste Subtotal (1)	Group 3 (Environmental Solutions)	Corporate entities and other	Total
Six Months Ended June 30, 2024						
Gross Revenue	$ 4,108.8	$ 3,917.7	$ 8,026.5	$ 909.5	$ 166.5	$ 9,102.5
Intercompany Revenue	(615.1)	(518.3)	(1,133.4)	(24.5)	(34.8)	(1,192.7)
Revenue allocations	62.5	58.3	120.8	10.9	(131.7)	—
Net Revenue	$ 3,556.2	$ 3,457.7	$ 7,013.9	$ 895.9	$ —	$ 7,909.8
Adjusted EBITDA	$ 1,149.2	$ 1,074.2	$ 2,223.4	$ 198.9	$ —	$ 2,422.3
Capital Expenditures	$ 318.1	$ 257.8	$ 575.9	$ 60.6	$ 281.4	$ 917.9
Total Assets	$ 13,659.3	$ 10,954.4	$ 24,613.7	$ 4,448.1	$ 2,872.3	$ 31,934.1
Six Months Ended June 30, 2023						
Gross Revenue	$ 3,774.0	$ 3,725.9	$ 7,499.9	$ 840.6	$ 128.0	$ 8,468.5
Intercompany Revenue	(586.5)	(502.5)	(1,089.0)	(29.4)	(43.1)	(1,161.5)
Revenue allocations	45.6	43.9	89.5	(4.6)	(84.9)	—
Net Revenue	$ 3,233.1	$ 3,267.3	$ 6,500.4	$ 806.6	$ —	$ 7,307.0
Adjusted EBITDA	$ 1,016.6	$ 964.3	$ 1,980.9	$ 175.3	$ —	$ 2,156.2
Capital Expenditures	$ 247.3	$ 241.8	$ 489.1	$ 38.2	$ 187.0	$ 714.3
Total Assets	$ 13,024.0	$ 10,780.1	$ 23,804.1	$ 3,971.5	$ 2,047.7	$ 29,823.3

(1) The Recycling & Waste Subtotal represents the combined results of our Group 1 and Group 2 reportable segments.

Significant changes in the revenue and Adjusted EBITDA of our reportable segments comparing the three and six months ended June 30, 2024 and 2023 are discussed below.

Group 1

Adjusted EBITDA in Group 1 increased from $527.1 million and $1,016.6 million for the three and six months ended June 30, 2023, respectively, to $590.3 million and $1,149.2 million for the three and six months ended June 30, 2024, respectively.

The most significant items impacting adjusted EBITDA in Group 1 during the three and six months ended June 30, 2024 compared to the three and six months ended June 30, 2023 include:

- Net revenue for the three months ended June 30, 2024 increased 9.2% due to an increase in average yield in all lines of business. These increases were partially offset by decreased volume in the collection and landfill lines of business.

  Net revenue for the six months ended June 30, 2024 increased 10.0% due to an increase in average yield in all lines of business. These increases were partially offset by volume declines in our residential and large-container collection, landfill and transfer lines of business. The decline in volume in our landfill line of business is primarily attributable to decreased special waste volumes, partially offset by increased solid waste volumes.

- Cost of operations increased due to an increase in labor costs and higher third-party maintenance costs due to inflationary pressures. The unfavorable impact was partially offset by a decrease in fuel costs due to a decrease in average fuel price per gallon.

Group 2

Adjusted EBITDA in Group 2 increased from $499.2 million and $964.3 million for the three and six months ended June 30, 2023, respectively, to $555.2 million and $1,074.2 million for the three and six months ended June 30, 2024, respectively.

The most significant items impacting adjusted EBITDA in Group 2 during the three and six months ended June 30, 2024 compared to the three and six months ended June 30, 2023 include:

- Net Revenue for the three months ended June 30, 2024 increased 5.7% due to an increase in average yield in all lines of business as well as increased volume in our landfill line of business. The increase in landfill volume was attributable to an increase in solid and special waste volumes, partially offset by declines in construction and demolition volumes.

Net Revenue for the six months ended June 30, 2024 increased 5.8% due to an increase in average yield in all lines of business. The increase was partially offset by a decrease in volume in our residential, small-container, and large-container collection lines of business as well as our transfer and landfill lines of business.The decrease in landfill volumes was attributable to a decrease in special waste and construction and demolition volumes.

- Cost of operations increased due to an increase in labor costs and higher third-party maintenance costs due to inflationary pressures. The unfavorable impact was partially offset by a decrease in fuel costs due to a decrease in average fuel price per gallon.

Group 3

Adjusted EBITDA in Group 3 increased from $89.8 million and $175.3 million for the three and six months ended June 30, 2023, respectively, to $112.3 million and $198.9 million for the three and six months ended June 30, 2024, respectively.

The most significant items impacting adjusted EBITDA in Group 3 during the three and six months ended June 30, 2024 compared to the three and six months ended June 30, 2023 include:

- Net revenue for both the three and six months ended June 30, 2024 increased due to acquisition-related growth and favorable pricing.
- Cost of operations increased primarily due to an increase in labor costs, partially offset by a decrease in subcontract volumes.

Landfill and Environmental Matters

Available Airspace

As of June 30, 2024, we owned or operated 208 active landfills with total available disposal capacity estimated to be 5.1 billion in-place cubic yards. For these landfills, the following table reflects changes in capacity and remaining capacity, as measured in cubic yards of airspace:

	Balance as of December 31, 2023	New Expansions Undertaken	Landfills Acquired, Net of Divestitures	Permits Granted / New Sites, Net of Closures	Airspace Consumed	Changes in Engineering Estimates	Balance as of June 30, 2024
Cubic yards (in millions):							
Permitted airspace	4,821.3	—	—	7.7	(43.0)	—	4,786.0
Probable expansion airspace	282.7	3.5	—	—	—	—	286.2
Total cubic yards (in millions)	5,104.0	3.5	—	7.7	(43.0)	—	5,072.2
Number of sites:							
Permitted airspace	207	—	1	—			208
Probable expansion airspace	14	1	—	—			15

Total available disposal capacity represents the sum of estimated permitted airspace plus an estimate of probable expansion airspace. Engineers develop these estimates at least annually using information provided by annual aerial surveys. Before airspace included in an expansion area is determined to be probable expansion airspace and, therefore, included in our calculation of total available disposal capacity, it must meet all of our expansion criteria.

As of June 30, 2024, 15 of our landfills met all of our criteria for including their probable expansion airspace in their total available disposal capacity. At projected annual volumes, these 15 landfills have an estimated remaining average site life of 51 years, including probable expansion airspace. The average estimated remaining life of all of our landfills is 57 years. We have other expansion opportunities that are not included in our total available airspace because they do not meet all of our criteria for treatment as probable expansion airspace.

Remediation and Other Charges for Landfill Matters

It is reasonably possible that we will need to adjust our accrued landfill and environmental liabilities to reflect the effects of new or additional information, to the extent that such information impacts the costs, timing or duration of the required actions. Future changes in our estimates of the costs, timing or duration of the required actions could have a material adverse effect on our consolidated financial position, results of operations and cash flows.

For a description of our significant remediation matters, see Note 6, *Landfill and Environmental Costs,* of the notes to our unaudited consolidated financial statements in Part I, Item 1 of this Quarterly Report on Form 10-Q.

Property and Equipment

The following tables reflect the activity in our property and equipment accounts for the six months ended June 30, 2024:

	Gross Property and Equipment							
	Balance as of December 31, 2023	Capital Additions	Retirements	Acquisitions, Net of Divestitures	Non-cash Additions for Asset Retirement Obligations	Adjustments for Asset Retirement Obligations	Impairments, Transfers, Foreign Currency Translation and Other Adjustments	Balance as of June 30, 2024
Land	$ 878.1	$ 11.8	$ —	$ 3.5	$ —	$ —	$ 2.3	$ 895.7
Landfill development costs	9,911.2	2.2	—	3.0	29.6	2.7	180.2	10,128.9
Vehicles and equipment	10,231.9	422.7	(216.5)	(9.4)	—	—	94.2	10,522.9
Buildings and improvements	1,921.9	4.4	(0.7)	13.0	—	—	38.0	1,976.6
Construction-in-progress - landfill	350.4	196.7	—	—	—	—	(179.8)	367.3
Construction-in-progress - other	553.6	166.4	—	—	—	—	(139.5)	580.5
Total	$ 23,847.1	$ 804.2	$ (217.2)	$ 10.1	$ 29.6	$ 2.7	$ (4.6)	$ 24,471.9

	Accumulated Depreciation, Amortization and Depletion						
	Balance as of December 31, 2023	Additions Charged to Expense	Retirements	Acquisitions, Net of Divestitures	Adjustments for Asset Retirement Obligations	Impairments, Transfers, Foreign Currency Translation and Other Adjustments	Balance as of June 30, 2024
Landfill development costs	$ (5,516.2)	$ (247.2)	$ —	$ —	$ (3.8)	$ 0.1	$ (5,767.1)
Vehicles and equipment	(6,147.7)	(437.0)	211.1	0.5	—	1.9	(6,371.2)
Buildings and improvements	(832.3)	(55.0)	0.2	—	—	—	(887.1)
Total	$ (12,496.2)	$ (739.2)	$ 211.3	$ 0.5	$ (3.8)	$ 2.0	$ (13,025.4)

Liquidity and Capital Resources

Cash and Cash Equivalents

The following is a summary of our cash and cash equivalents and restricted cash and marketable securities balances as of:

	June 30, 2024	December 31, 2023
Cash and cash equivalents	$ 490.6	$ 140.0
Restricted cash and marketable securities	178.0	163.6
Less: restricted marketable securities	(76.8)	(76.1)
Cash, cash equivalents, restricted cash and restricted cash equivalents	$ 591.8	$ 227.5

Our restricted cash and marketable securities includes amounts pledged to regulatory agencies and governmental entities as financial guarantees of our performance under certain collection, landfill and transfer station contracts and permits, and relating to our final capping, closure and post-closure obligations at our landfills as well as restricted cash and marketable securities related to our insurance obligations.

The following table summarizes our restricted cash and marketable securities:

	June 30, 2024	December 31, 2023
Capping, closure and post-closure obligations	$ 42.8	$ 43.2
Insurance	135.2	120.4
Total restricted cash and marketable securities	$ 178.0	$ 163.6

Material Cash Requirements and Intended Uses of Cash

We expect existing cash, cash equivalents, restricted cash and marketable securities, cash flows from operations and financing activities to continue to be sufficient to fund our operating activities and cash commitments for investing and financing activities for at least the next 12 months and thereafter for the foreseeable future. Our known current- and long-term uses of cash include, among other possible demands: (1) capital expenditures and leases; (2) acquisitions; (3) dividend payments; (4) repayments to service debt and other long-term obligations; (5) payments for asset retirement obligations and environmental liabilities; and (6) share repurchases.

We may choose to voluntarily retire certain portions of our outstanding debt before their maturity dates using cash from operations or additional borrowings. We may also explore opportunities in the capital markets to fund redemptions should market conditions be favorable. Early extinguishment of debt will result in an impairment charge in the period in which the debt is repaid. The loss on early extinguishment of debt relates to premiums paid to effectuate the repurchase and the relative portion of unamortized note discounts and debt issue costs.

Acquisitions

Our acquisition growth strategy focuses primarily on acquiring privately held recycling and waste companies and environmental solutions businesses that complement our existing business platform. We continue to invest in value-enhancing acquisitions in existing markets.

In 2024, we expect to invest up to $500 million in acquisitions, including an investment in a post-collection business.

Summary of Cash Flow Activity

The major components of changes in cash flows are discussed in the following paragraphs. The following table summarizes our cash flow from operating activities, investing activities and financing activities for the six months ended June 30, 2024 and 2023:

	Six Months Ended June 30, 2024	Six Months Ended June 30, 2023
Cash Provided by Operating Activities	$ 1,910.9	$ 1,766.2
Cash Used in Investing Activities	$ (1,112.7)	$ (1,674.3)
Cash Used in Financing Activities	$ (434.6)	$ (33.7)

Cash Flows Provided by Operating Activities

We use cash flows from operations to fund capital expenditures and leases, acquisitions, dividend payments, share repurchases, interest payments and repayments of debt and other long-term obligations, and payments for asset retirement obligations and environmental liabilities.

The most significant items affecting the comparison of our cash flows provided by operating activities for the six months ended June 30, 2024 and 2023 are summarized below.

Changes in assets and liabilities, net of effects from business acquisitions and divestitures, decreased our cash flow from operations by $109.9 million during the six months ended June 30, 2024, compared to an increase of $70.5 million during the same period in 2023, primarily as a result of the following:

- Our accounts receivable, exclusive of the change in allowance for doubtful accounts and customer credits, increased $69.4 million during the six months ended June 30, 2024 due to the timing of billings net of collections, compared to a $52.0 million increase in the same period in 2023. As of June 30, 2024, our days sales outstanding were 40.9, or 30.2 days net of deferred revenue, compared to 42.5, or 31.1 days net of deferred revenue, as of June 30, 2023.
- Our prepaid expenses and other assets decreased $36.2 million during the six months ended June 30, 2024, compared to a $138.5 million decrease in the same period in 2023, primarily driven by a decrease of tax receivables due to the timing of our estimated tax payments and an increase in capitalized implementation costs for our cloud-based hosting arrangements. Cash paid for incomes taxes was $109.3 million and $88.0 million for the six months ended June 30, 2024 and 2023, respectively.
- Our accounts payable increased $19.5 million during the six months ended June 30, 2024, compared to a $35.1 million increase in the same period in 2023, due to the timing of payments.
- Cash paid for capping, closure and post-closure obligations was $22.2 million during the six months ended June 30, 2024, compared to $24.5 million in the same period in 2023.
- Cash paid for remediation obligations was $5.5 million higher during the six months ended June 30, 2024, compared to the same period in 2023.
- Our other liabilities decreased $47.3 million during the six months ended June 30, 2024, compared to a $5.4 million decrease in the same period in 2023, primarily due to the payment of incentive compensation accruals.

In addition, cash paid for interest, excluding net swap settlements for our floating-to-fixed interest rate swaps, was $238.1 million and $203.6 million for the six months ended June 30, 2024 and 2023, respectively.

Cash Flows Used in Investing Activities

The most significant items affecting the comparison of our cash flows used in investing activities for the six months ended June 30, 2024 and 2023 are summarized below:

- Capital expenditures during the six months ended June 30, 2024 were $917.9 million, compared with $714.3 million for the same period in 2023.
- During the six months ended June 30, 2024 and 2023, we paid $201.0 million and $987.7 million, respectively, for acquisitions and investments.

We intend to finance future capital expenditures and acquisitions through cash on hand, restricted cash held for capital expenditures, cash flows from operations, our revolving credit facilities, and tax-exempt bonds and other financings. We expect to primarily use cash and borrowings under our revolving credit facilities to pay for future acquisitions.

Cash Flows Used in Financing Activities

The most significant items affecting the comparison of our cash flows (used in) provided by financing activities for the six months ended June 30, 2024 and 2023 are summarized below:

- During the six months ended June 30, 2024, we issued $900.0 million of senior notes for cash proceeds, net of discounts and fees, of $888.9 million. During the six months ended June 30, 2023, we issued $1,200.0 million of senior notes for cash proceeds, net of discounts and fees, of $1,183.6 million. Net payments from notes payable and long-term debt were $789.8 million during the six months ended June 30, 2024, compared to net payments of $885.7 million during the same period in 2023. For a more detailed discussion, see the *Financial Condition* section of this Management's Discussion and Analysis of Financial Condition and Results of Operations.
- During the six months ended June 30, 2024, we repurchased 0.9 million shares of our stock for $167.6 million. We did not repurchase any shares of our common stock during the same period in 2023.
- Dividends paid were $336.8 million and $313.0 million during the six months ended June 30, 2024 and 2023, respectively.

Financial Condition

Debt Obligations

As of June 30, 2024, we had $1,432.9 million of principal debt maturing within the next 12 months, which includes certain finance lease obligations. All of our tax-exempt financings are remarketed either quarterly or semiannually by remarketing agents to effectively maintain a variable yield, with the exception of three tax-exempt financings each with an initial remarketing period of 10 years. The holders of the bonds can put them back to the remarketing agents at the end of each interest period. If the remarketing agents are unable to remarket our bonds, the remarketing agents can put the bonds to us. In the event of a failed remarketing, as of June 30, 2024, we had availability under our Credit Facility to fund these bonds until they are remarketed successfully. In the event of a failed re-borrowing under our commercial paper program, as of June 30, 2024, we had availability under our Credit Facility to fund the commercial paper program until it is re-borrowed successfully. Accordingly, we have classified these tax-exempt financings and commercial paper program borrowings as long-term in our consolidated balance sheet as of June 30, 2024.

For further discussion of the components of our overall debt, see Note 7, *Debt,* of the notes to our unaudited consolidated financial statements in Part I, Item 1 of this Quarterly Report on Form 10-Q.

Credit Facilities

Uncommitted Credit Facility

In January 2022, we entered into a $200.0 million unsecured uncommitted revolving credit facility (the Uncommitted Credit Facility). The Uncommitted Credit Facility bears interest at an annual percentage rate to be agreed upon by both parties. Borrowings under the Uncommitted Credit Facility can be used for working capital, letters of credit, and other general corporate purposes. The agreement governing our Uncommitted Credit Facility requires us to comply with certain covenants. The Uncommitted Credit Facility may be terminated by either party at any time. As of both June 30, 2024 and December 31, 2023, we had no borrowings outstanding under our Uncommitted Credit Facility.

The Credit Facility

In August 2021, we entered into a $3.0 billion unsecured revolving credit facility (as amended, the Credit Facility). Borrowings under the Credit Facility mature in August 2026. As permitted by the Credit Facility, we have the right to request two one-year extensions of the maturity date, but none of the lenders are committed to participate in such extensions. The Credit Facility also includes a feature that allows us to increase availability, at our option, by an aggregate amount of up to $1.0 billion through increased commitments from existing lenders or the addition of new lenders. In October 2023, we completed an upsize of the Credit Facility to $3.5 billion.

In February 2023, we entered into Amendment No. 1 to the Credit Facility to add our subsidiary, USE Canada Holdings, Inc (the Canadian Borrower), as an additional borrower under the Credit Facility, and provided that the aggregate of (i) all loans to the Canadian Borrower and (ii) all loans denominated in Canadian dollars cannot exceed $500.0 million (the Canadian Sublimit). In October 2023, we entered into Amendment No. 2 to the Credit Facility which increased the Canadian Sublimit to $1.0 billion. The Canadian Sublimit is part of, and not in addition to, the aggregate commitments under the Credit Facility.

Borrowings under the Credit Facility in United States dollars bear interest at a Base Rate, a daily floating SOFR or a term SOFR plus a current applicable margin of 0.910% based on our Debt Ratings (all as defined in the Credit Facility agreement). The Canadian dollar-denominated loans bear interest based on the Canadian Prime Rate or the Canadian Dollar Offered Rate plus a current applicable margin of 0.910% based on our Debt Ratings. As of June 30, 2024 and December 31, 2023, C$249.9 million and C$201.5 million, respectively, were outstanding against the Canadian Sublimit. The weighted average interest rate for borrowings outstanding as of June 30, 2024 was 6.223%.

The Credit Facility is subject to facility fees based on applicable rates defined in the Credit Facility agreement and the aggregate commitment, regardless of usage. The Credit Facility can be used for working capital, capital expenditures, acquisitions, letters of credit and other general corporate purposes. The Credit Facility agreement requires us to comply with financial and other covenants. We may pay dividends and repurchase common stock if we are in compliance with these covenants.

We had $182.7 million and $297.1 million of borrowings outstanding under the Credit Facility as of June 30, 2024 and December 31, 2023, respectively. We had $315.4 million and $336.5 million of letters of credit outstanding under our Credit Facility as of June 30, 2024 and December 31, 2023, respectively. We also had $179.9 million and $495.3 million of principal borrowings outstanding (net of related discount on issuance) under our commercial paper program as of June 30, 2024 and December 31, 2023, respectively. As a result, availability under our Credit Facility was $2,821.9 million and $2,371.2 million as of June 30, 2024 and December 31, 2023, respectively.

Financial and Other Covenants

The Credit Facility requires us to comply with financial and other covenants. To the extent we are not in compliance with these covenants, we cannot pay dividends or repurchase common stock. Compliance with covenants also is a condition for any incremental borrowings under the Credit Facility, and failure to meet these covenants would enable the lenders to require repayment of any outstanding loans (which would adversely affect our liquidity). The Credit Facility provides that our total debt to EBITDA ratio may not exceed 3.75 to 1.00 as of the last day of any fiscal quarter. In the case of an "elevated ratio period", which may be elected by us if one or more acquisitions during a fiscal quarter involve aggregate consideration in excess of $200.0 million (the Trigger Quarter), the total debt to EBITDA ratio may not exceed 4.25 to 1.00 during the Trigger Quarter and for the three fiscal quarters thereafter. The Credit Facility also provides that there may not be more than two elevated ratio periods during the term of the Credit Facility agreement. As of June 30, 2024, our total debt to EBITDA ratio was approximately 2.8 compared to the 3.75 maximum allowed by the covenants. As of June 30, 2024, we were in compliance with the covenants under our Credit Facility, and we expect to be in compliance throughout the remainder of 2024.

EBITDA, which is a non-U.S. GAAP measure, is calculated as defined in our Credit Facility agreement. In this context, EBITDA is used solely to provide information regarding the extent to which we are in compliance with debt covenants and is not comparable to EBITDA used by other companies or used by us for other purposes.

Failure to comply with the financial and other covenants under the Credit Facility, as well as the occurrence of certain material adverse events, would constitute defaults and would allow the lenders under the Credit Facility to accelerate the maturity of all indebtedness under the Credit Facility. This could have an adverse effect on the availability of financial assurances. In addition, maturity acceleration on the Credit Facility constitutes an event of default under our other debt and derivative instruments, including our senior notes, and, therefore, our senior notes would also be subject to acceleration of maturity. If such acceleration were to occur, we would not have sufficient liquidity available to repay the indebtedness. We would likely have to seek an amendment under the Credit Facility for relief from the financial covenant or repay the debt with proceeds from the issuance of new debt or equity, or asset sales, if necessary. We may be unable to amend the Credit Facility or raise sufficient capital to repay such obligations in the event the maturity is accelerated.

Term Loan Facility

On April 29, 2022, we entered into a $1.0 billion term loan facility (the Term Loan Facility) which bears interest at a base rate or a forward-looking SOFR, plus an applicable margin based on our debt ratings. We had $500.0 million of borrowings outstanding under the Term Loan Facility as of December 31, 2023. During the six months ended June 30, 2024, we paid down the remaining balance of the Term Loan Facility.

Commercial Paper Program

We have entered into a commercial paper program for the issuance and sale of unsecured commercial paper in an aggregate principal amount not to exceed $1.5 billion outstanding at any one time. The weighted average interest rate for borrowings outstanding as of June 30, 2024 was 5.515% with a weighted average maturity of 24 days.

We had $180.0 million and $496.0 million in aggregate principal amount of commercial paper issued and outstanding under the program as of June 30, 2024 and December 31, 2023, respectively. In the event of a failed re-borrowing, we currently have availability under our Credit Facility to fund the commercial paper program until it is re-borrowed successfully. Accordingly, we have classified these borrowings as long-term in our consolidated balance sheet as of June 30, 2024.

Senior Notes and Debentures

In March 2023, we issued $400.0 million of 4.875% senior notes due 2029 (the Existing 2029 Notes) and $800.0 million of 5.000% senior notes due 2034. We used the proceeds from the March 2023 notes issuance for general corporate purposes, including the repayment of a portion of amounts outstanding under the Uncommitted Credit Facility, the Commercial Paper Program, the Credit Facility, and the Term Loan Facility. As a result of the Term Loan Facility repayment, we incurred a non-cash loss on the early extinguishment of debt related to the ratable portion of unamortized deferred issuance costs of $0.2 million.

In December 2023, we issued an additional $350.0 million of 4.875% senior notes due 2029 (the New 2029 Notes, and together with the Existing 2029 Notes, the 2029 Notes). After giving effect to the issuance of the New 2029 Notes, $750.0 million in aggregate principal amount of the 2029 Notes is outstanding. The New 2029 Notes are fungible with the Existing 2029 Notes, and taken together, the 2029 Notes are treated as a single series.

In December 2023, we also issued $650.0 million of 5.000% senior notes due 2033 (the 5.000% 2033 Notes). The proceeds of the December 2023 notes issuance were used for general corporate purposes, including the repayment of a portion of amounts outstanding under the Uncommitted Credit Facility, the Commercial Paper Program, the Credit Facility, and the Term Loan Facility.

In June 2024, we issued $400.0 million of 5.000% senior notes due 2029 (the 5.000% 2029 Notes) and $500.0 million of 5.200% senior notes due 2034, (the 5.200% 2034 Notes). We used the proceeds from the June 2024 notes issuance for general corporate purposes, including the repayment of a portion of amounts outstanding under the Commercial Paper Program and the Credit Facility; and repayment of the remaining amount outstanding under the Term Loan Facility and the Uncommitted Credit Facility.

Our senior notes and debentures are general unsecured and unsubordinated obligations and rank equally with our other unsecured obligations.

Derivative Instruments and Hedging Relationships

Our ability to obtain financing through the capital markets is a key component of our financial strategy. Historically, we have managed risk associated with executing this strategy, particularly as it relates to fluctuations in interest rates, by using a combination of fixed and floating rate debt. From time to time, we also have entered into interest rate swap and lock agreements to manage risk associated with interest rates, either to effectively convert specific fixed rate debt to a floating rate (fair value hedges), or to lock interest rates in anticipation of future debt issuances (cash flow hedges).

Additionally, we amended certain interest rate lock agreements, extending the mandatory maturity date and dedesignated them as cash flow hedges (the Extended Interest Rate Locks). In addition, we entered into offsetting interest rate contracts to offset future exposures to fair value fluctuations of the Extended Interest Rate Locks.

For a description of our derivative contracts and hedge accounting, see Note 7, *Debt*, to our unaudited consolidated financial statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q.

Tax-Exempt Financings

As of June 30, 2024 and December 31, 2023, we had $1,429.4 million and $1,280.6 million, respectively, of certain variable rate tax-exempt financings outstanding, with maturities ranging from 2024 to 2054 and from 2024 to 2053, respectively.

Finance Leases

As of June 30, 2024 and December 31, 2023, we had finance lease liabilities of $276.5 million and $251.3 million, respectively, with maturities ranging from 2024 to 2063 for both periods.

Credit Ratings

Our continued access to the debt capital markets and to new financing facilities, as well as our borrowing costs, depend on multiple factors, including market conditions, our operating performance and maintaining strong credit ratings. As of June 30, 2024, our credit ratings were BBB+, Baa1 and A- by Standard & Poor's Ratings Services, Moody's Investors Service and Fitch Ratings, Inc, respectively. If our credit ratings were downgraded, especially any downgrade to below investment grade, our ability to access the debt markets with the same flexibility that we have experienced historically, our cost of funds and other terms for new debt issuances, could be adversely impacted.

Off-Balance Sheet Arrangements

We have no off-balance sheet debt or similar obligations, other than short-term operating leases and financial assurances, which are not classified as debt. We have no transactions or obligations with related parties that are not disclosed, consolidated into or reflected in our reported financial position or results of operations. We have not guaranteed any third-party debt.

Seasonality and Severe Weather

Our operations can be adversely affected by periods of inclement or severe weather, which could increase the volume of waste collected under our existing contracts (without corresponding compensation), delay the collection and disposal of waste, reduce the volume of waste delivered to our disposal sites, or delay the construction or expansion of our landfills and other facilities. Our operations also can be favorably affected by severe weather, which could increase the volume of waste in situations where we are able to charge for our additional services.

Contingencies

For a description of our commitments and contingencies, see Note 6, *Landfill and Environmental Costs*, Note 8, *Income Taxes,* and Note 14, *Commitments and Contingencies*, to our unaudited consolidated financial statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q.

Critical Accounting Judgments and Estimates

We identified and discussed our critical accounting judgments and estimates in our Annual Report on Form 10-K for the fiscal year ended December 31, 2023. Although we believe our estimates and judgments are reasonable, they are based upon information available at the time the judgment or estimate is made. Actual results may differ significantly from estimates under different assumptions or conditions.

New Accounting Pronouncements

For a description of new accounting standards that may affect us, see Note 1, *Basis of Presentation*, to our unaudited consolidated financial statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.

Fuel Price Risk

Fuel costs represent a significant operating expense. When economically practical, we may enter into new fuel hedges, renew contracts, or engage in other strategies to mitigate market risk. As of June 30, 2024, we had no fuel hedges in place. While we charge fuel recovery fees to a majority of our customers, we are unable to charge such fees to all customers.

At current consumption levels, we believe a twenty-cent per gallon change in the price of diesel fuel would change our fuel costs by approximately $27 million per year. Offsetting these changes in fuel expense would result in changes in our fuel recovery fee charged to our customers. At current participation rates, we believe a twenty-cent per gallon change in the price of diesel fuel would change our fuel recovery fee by approximately $36 million per year.

Our operations also require the use of certain petrochemical-based products (such as liners at our landfills) the cost of which may vary with the price of petrochemicals. An increase in the price of petrochemicals could increase the cost of those products, which would increase our operating and capital costs. We also are susceptible to increases in fuel recovery fees from our vendors.

Our fuel costs were $247.0 million during the six months ended June 30, 2024, or 3.1% of revenue, compared to $269.5 million, or 3.7% of revenue, during the comparable period in 2023.

Commodities Price Risk

We market recovered materials such as old corrugated containers and old newsprint from our recycling centers. Changes in market supply and demand for recycled commodities causes volatility in commodity prices. In prior periods, we have entered into derivative instruments such as swaps and costless collars designated as cash flow hedges to manage our exposure to changes in prices of these commodities. As of June 30, 2024, we had no recycling commodity hedges in place.

At current volumes and mix of materials, we believe a $10 change in the price of recycled commodities would change both annual revenue and operating income by approximately $10 million.

Revenue from recycling processing and commodity sales during the six months ended June 30, 2024 and 2023 was $203.0 million and $150.1 million, respectively.

Interest Rate Risk

We are subject to interest rate risk on our variable rate long-term debt. Additionally, we enter into various interest rate swap agreements with the goal of reducing overall borrowing costs and increasing our floating interest rate exposure, as well as interest rate locks to manage exposure to fluctuations in anticipation of future debt issuances. Our interest rate swap and lock contracts have been authorized pursuant to our policies and procedures. We do not use financial instruments for trading purposes and are not a party to any leveraged derivatives.

As of June 30, 2024, we had $1,551.8 million of principal floating rate debt. If interest rates increased or decreased by 100 basis points on our floating rate debt, annualized interest expense and net cash payments for interest would increase or decrease by approximately $16 million. This analysis does not reflect the effect that interest rates would have on other items, such as new borrowings and the impact on the economy. See Note 7, *Debt,* of the notes to our unaudited consolidated financial statements in Part I, Item 1 of this Quarterly Report on Form 10-Q for further information regarding how we manage interest rate risk.

ITEM 4. CONTROLS AND PROCEDURES.

Disclosure Controls and Procedures

We carried out an evaluation, under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of our disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e), and 15d-15(e)) as of the end of the period covered by this Form 10-Q. Based upon that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of the end of the period covered by this Form 10-Q.

Changes in Internal Control Over Financial Reporting

Based on an evaluation, under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, there has been no change in our internal control over financial reporting during the period covered by this Form 10-Q identified in connection with that evaluation, that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

In November 2023, we acquired all of the issued and outstanding capital stock or other ownership interests of Advanced Chemical Transport LLC. In December 2023, we acquired all of the issued and outstanding membership and other equity interests of Central Texas Refuse, LLC and an affiliate thereof. As permitted by the SEC Staff interpretive guidance for newly acquired businesses, management's assessment of our internal control over financial reporting as of June 30, 2024 did not include an assessment of internal control over financial reporting as it relates to these acquisitions. We will continue the process of implementing internal controls over financial reporting for these acquired businesses. These businesses contributed approximately 2% of revenue to our unaudited consolidated financial statements for the six months ended June 30, 2024.

PART II - OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS.

General Legal Proceedings

We are subject to extensive and evolving laws and regulations and have implemented safeguards to respond to regulatory requirements. In the normal course of our business, we become involved in legal proceedings. Some may result in fines, penalties or judgments against us, or settlements, which may impact earnings and cash flows for a particular period. Although we cannot predict the ultimate outcome of any legal matter with certainty, we do not believe the outcome of any of our pending legal proceedings will have a material adverse impact on our consolidated financial position, results of operations or cash flows.

As used in the immediately following paragraph, the term *legal proceedings* refers to litigation and similar claims against us and our subsidiaries, excluding: (1) ordinary course accidents, general commercial liability and workers' compensation claims, which are covered by insurance programs, subject to customary deductibles, and which, together with self-insured employee health care costs, are discussed in Note 5, *Other Liabilities,* to our unaudited consolidated financial statements in Part I, Item 1 of this Quarterly Report on Form 10-Q; and (2) environmental remediation liabilities, which are discussed in Note 6, *Landfill and Environmental Costs,* to our unaudited consolidated financial statements in Part I, Item 1 of this Quarterly Report on Form 10-Q.

We accrue for legal proceedings when losses become probable and reasonably estimable. We recorded an aggregate accrual of approximately $15 million relating to our outstanding legal proceedings as of June 30, 2024. As of the end of each applicable reporting period, we review each of our legal proceedings and, where it is probable that a liability has been incurred, we accrue for all probable and reasonably estimable losses. Where we are able to reasonably estimate a range of losses we may incur with respect to such a matter, we record an accrual for the amount within the range that constitutes our best estimate. If we are able to reasonably estimate a range but no amount within the range appears to be a better estimate than any other, we use the amount that is the low end of such range. If we had used the high ends of such ranges, our aggregate potential liability would be approximately $9 million higher than the amount recorded as of June 30, 2024.

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

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

ITEM 1A. RISK FACTORS.

There have been no material changes to the risk factors disclosed in Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2023.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS AND ISSUER PURCHASES OF EQUITY SECURITIES.

Issuer Purchases of Equity Securities

The following table provides information relating to our purchases of shares of our common stock during the three months ended June 30, 2024:

	Total Number of Shares Purchased (a)	Average Price Paid per Share (a) (d)	Total Number of Shares Purchased as Part of Publicly Announced Program (b)	Dollar Value of Shares that May Yet Be Purchased Under the Program (c)(d)
April 1 - 30	—	$ —	—	$ 3,000,000,000
May 1 - 31	850,000	$ 186.43	850,000	$ 2,841,533,210
June 1 - 30	50,000	$ 182.96	50,000	$ 2,832,285,070
	900,000		900,000	

(a) In October 2023, our Board of Directors approved a $3.0 billion share repurchase authorization effective January 1, 2024 and extending through December 31, 2026. Share repurchases under the program may be made through open market purchases or privately negotiated transactions in accordance with applicable federal securities laws. While the Board of Directors has approved the program, the timing of any purchases, the prices and the number of shares of common stock to be purchased will be determined by our management, at its discretion, and will depend upon market conditions and other factors. The share repurchase program may be extended, suspended or discontinued at any time. As of June 30, 2024, there were no repurchased shares pending settlement.

(b) The total number of shares purchased as part of the publicly announced program were all purchased pursuant to the October 2023 authorization.

(c) Shares that may be purchased under the program exclude shares of common stock that may be surrendered to satisfy statutory minimum tax withholding obligations in connection with the vesting of restricted stock units and performance stock units issued to employees.

(d) Excludes a 1% excise tax imposed by the Inflation Reduction Act.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES.

None.

ITEM 4. MINE SAFETY DISCLOSURES.

None.

ITEM 5. OTHER INFORMATION.

During the quarter ended June 30, 2024, no director or officer adopted or terminated any contract, instrument or written plan for the purchase or sale of Republic securities intended to satisfy the affirmative defense conditions of Rule 10b5-1(c) under the Exchange Act or any non-Rule 10b5-1 trading arrangement as defined in Item 408(c) of Regulation S-K.

ITEM 6. EXHIBITS

Exhibit Number	Description of Exhibit
4.1	Form of Fifteenth Supplemental Indenture to the Indenture between Republic Services, Inc. and U.S. Bank Trust Company, National Association (as successor in interest to U.S. Bank National Association), as trustee, including the form of 5.000% Notes due 2029 and the form of 5.200% Notes due 2034 (incorporated by reference to Exhibit 4.1 of the Company's Current Report on Form 8-K dated June 20, 2024).
31.1*	Rule 13a-14(a)/15d-14(a) Certification of Chief Executive Officer.
31.2*	Rule 13a-14(a)/15d-14(a) Certification of Chief Financial Officer.
32.1**	Section 1350 Certification of Chief Executive Officer.
32.2**	Section 1350 Certification of Chief Financial Officer.
101.INS*	XBRL Instance Document. - 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 (formatted as Inline XBRL and contained in Exhibit 101).

* Filed herewith.

** This exhibit is being furnished rather than filed, and shall not be deemed incorporated by reference into any filing, in accordance with Item 601 of Regulation S-K.

SIGNATURES

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

		REPUBLIC SERVICES, INC.
Date: July 24, 2024	By:	/s/ BRIAN DELGHIACCIO
		Brian DelGhiaccio **Executive Vice President,** **Chief Financial Officer** **(Principal Financial Officer)**
Date: July 24, 2024	By:	/s/ ELYSE M. CARLSEN
		Elyse M. Carlsen **Vice President and** **Chief Accounting Officer** **(Principal Accounting Officer)**

EXHIBIT 31.1

CERTIFICATION PURSUANT TO RULES 13a-14(a) AND 15d-14(a), AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Jon Vander Ark, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Republic Services, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ JON VANDER ARK

Jon Vander Ark
President and Chief Executive Officer
(Principal Executive Officer)

Date: July 24, 2024

EXHIBIT 31.2

CERTIFICATION PURSUANT TO RULES 13a-14(a) AND 15d-14(a),
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Brian DelGhiaccio, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Republic Services, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ BRIAN DELGHIACCIO

Brian DelGhiaccio
Executive Vice President,
Chief Financial Officer
(Principal Financial Officer)

Date: July 24, 2024

EXHIBIT 32.1

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

In connection with the Quarterly Report on Form 10-Q of Republic Services, Inc. (the Company) for the period ended June 30, 2024 as filed with the Securities and Exchange Commission on the date hereof (the Report), I, Jon Vander Ark, President and Chief Executive Officer of the Company, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ JON VANDER ARK

Jon Vander Ark
President and Chief Executive Officer
(Principal Executive Officer)

Date: July 24, 2024

EXHIBIT 32.2

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

In connection with the Quarterly Report on Form 10-Q of Republic Services, Inc. (the Company) for the period ended June 30, 2024 as filed with the Securities and Exchange Commission on the date hereof (the Report), I, Brian DelGhiaccio, Chief Financial Officer of the Company, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ BRIAN DELGHIACCIO

Brian DelGhiaccio
Executive Vice President,
Chief Financial Officer
(Principal Financial Officer)

Date: July 24, 2024