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, 2019

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

(State or other jurisdiction of incorporation or organization)

18500 North Allied Way

Phoenix, Arizona

(Address of principal executive offices)

65-0716904 (I.R.S. Employer Identification No.)

> 85054 (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	🗹 A	ccelerated filer		Smaller reporting company	
Non-accelerated filer				Emerging growth company	
If an emerging growth company, indicate by c	heck mark	if the registrant has elected not to use th	e extended trai	nsition period for complying with any new or	
revised financial accounting standards provide	d 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 18, 2019, the registrant had outstanding 320,751,272 shares of Common Stock, par value \$0.01 per share (excluding treasury shares of 32,231,845).

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,	De	ecember 31,
		2019		2018
	(1	Unaudited)		
ASSETS				
Current assets:				
Cash and cash equivalents	\$	72.5	\$	70.5
Accounts receivable, less allowance for doubtful accounts and other of \$33.1 and \$34.3, respectively		1,147.0		1,102.7
Prepaid expenses and other current assets		254.6		391.2
Total current assets		1,474.1		1,564.4
Restricted cash and marketable securities		119.2		108.1
Property and equipment, net		8,093.6		8,020.1
Goodwill		11,497.7		11,400.1
Other intangible assets, net		125.8		106.5
Other assets		686.4		417.8
Total assets	\$	21,996.8	\$	21,617.0
LIABILITIES AND STOCKHOLDERS' EQUITY				
Current liabilities:				
Accounts payable	\$	719.6	\$	761.5
Notes payable and current maturities of long-term debt	Ψ	1,561.3	Ψ	690.7
Deferred revenue		331.3		338.7
Accrued landfill and environmental costs, current portion		142.3		130.6
Accrued interest		75.3		68.5
Other accrued liabilities		741.2		728.6
Total current liabilities		3,571.0		2,718.6
Long-term debt, net of current maturities		6,883.9		7,646.8
Accrued landfill and environmental costs, net of current portion		1,709.8		1,701.6
Deferred income taxes and other long-term tax liabilities, net		1,060.5		1,028.3
Insurance reserves, net of current portion		264.5		270.8
Other long-term liabilities		551.9		321.4
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; 353.0 and 351.9 issued and outstanding, respectively		3.5		3.5
Additional paid-in capital		4,960.7		4,924.9
Retained earnings		4,987.9		4,750.5
Treasury stock, at cost; 32.2 and 29.4 shares, respectively		(2,003.1)		(1,782.6)
Accumulated other comprehensive income, net of tax		3.9		30.8
Total Republic Services, Inc. stockholders' equity		7,952.9		7,927.1
Non-controlling interests in consolidated subsidiary		2.3		2.4
Total stockholders' equity		7,955.2		7,929.5
Total liabilities and stockholders' equity	\$	21,996.8	\$	21,617.0

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,			d June 30,	Six Months Ended June 30,			
		2019		2018		2019		2018
Revenue	\$	2,605.3	\$	2,517.8	\$	5,075.9	\$	4,945.2
Expenses:								
Cost of operations		1,617.0		1,577.2		3,123.1		3,047.0
Depreciation, amortization and depletion		264.2		255.5		515.8		518.6
Accretion		20.5		20.2		40.9		40.6
Selling, general and administrative		264.5		252.9		530.9		514.0
Loss (gain) on disposition of assets and asset impairments, net		0.2		—		0.5		(0.7)
Restructuring charges		1.5		3.8		4.5		13.3
Operating income		437.4		408.2		860.2		812.4
Interest expense		(98.5)		(96.5)		(198.9)		(191.3)
Loss from unconsolidated equity method investment		(11.5)		(0.1)		(23.1)		(0.1)
Loss on extinguishment of debt		—		(0.3)		—		(0.3)
Interest income		1.4		0.2		3.3		0.4
Other (expense) income, net		(0.2)		1.1		(0.1)		2.2
Income before income taxes		328.6		312.6		641.4		623.3
Provision for income taxes		77.7		76.9		155.6		149.7
Net income		250.9		235.7		485.8		473.6
Net loss (income) attributable to non-controlling interests in consolidated subsidiary		0.6		(0.8)		(0.1)		(1.0)
Net income attributable to Republic Services, Inc.	\$	251.5	\$	234.9	\$	485.7	\$	472.6
Basic earnings per share attributable to Republic Services, Inc. stockholders:			_				_	
Basic earnings per share	\$	0.78	\$	0.72	\$	1.51	\$	1.44
Weighted average common shares outstanding		321.7		327.4		322.0		329.0
Diluted earnings per share attributable to Republic Services, Inc. stockholders:								
Diluted earnings per share	\$	0.78	\$	0.71	\$	1.50	\$	1.43
Weighted average common and common equivalent shares outstanding		322.8		328.8		323.1		330.5
Cash dividends per common share	\$	0.375	\$	0.345	\$	0.750	\$	0.690

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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 3						Six Months Ended June 30,			
		2019		2018		2019		2018		
Net income	\$	250.9	\$	235.7	\$	485.8	\$	473.6		
Other comprehensive income (loss), net of tax										
Hedging activity:										
Settlements		—		23.8				24.4		
Realized gain reclassified into earnings		(0.2)		(0.8)		(0.3)		(1.0)		
Unrealized (loss) gain		(19.9)		(11.9)		(31.2)		6.8		
Pension activity:										
Change in funded status of pension plan obligations		(0.8)		—		(0.8)				
Other comprehensive income (loss), net of tax		(20.9)		11.1		(32.3)		30.2		
Comprehensive income		230.0		246.8		453.5	503.8			
Comprehensive loss (income) attributable to non-controlling interests		0.6		(0.8)		(0.1)		(1.0)		
Comprehensive income attributable to Republic Services, Inc.	\$	230.6	\$	246.0	\$	453.4	\$	502.8		

The accompanying notes are an integral part of these statements.

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

			Republic S	ervices, Inc. Sto	ckholders' Equ	uity			
	Comm Shares	on Stock Amount	Additional Paid-In Capital	Retained Earnings	Treasu	rry Stock Amount	Accumulated Other Comprehensive Income, Net of Tax	Non-controlling Interests In Consolidated Subsidiary	Total
Balance as of December 31, 2018	351.9	\$ 3.5	\$ 4,924.9	\$ 4,750.5	(29.4)	\$ (1,782.6)	\$ 30.8	\$ 2.4	\$ 7,929.5
Adoption of accounting standard	_	_	_	(5.4)		_	5.4		—
Net income	—	—	—	234.2		—	—	0.7	234.9
Other comprehensive loss	—	—	—	—		—	(11.4)	—	(11.4)
Cash dividends declared	_	_	—	(120.7)		—	—	—	(120.7)
Issuances of common stock	0.9	—	7.7	—	(0.2)	(16.8)	—	—	(9.1)
Stock-based compensation	_	_	12.0	(1.1)		—	—	—	10.9
Purchase of common stock for treasury	—	—			(1.5)	(111.5)	—	—	(111.5)
Balance as of March 31, 2019	352.8	3.5	4,944.6	4,857.5	(31.1)	(1,910.9)	24.8	3.1	7,922.6
Net income				251.5				(0.6)	250.9
Other comprehensive loss	_		_	_	_		(20.9)	_	(20.9)
Cash dividends declared	—	—	—	(120.2)		—	—	—	(120.2)
Issuances of common stock	0.2	—	6.3	—	—	(0.3)	—	—	6.0
Stock-based compensation	_	_	9.8	(0.9)		—	—	—	8.9
Purchase of common stock for treasury	—	—	—	—	(1.1)	(91.9)	—	—	(91.9)
Distributions paid								(0.2)	(0.2)
Balance as of June 30, 2019	353.0	\$ 3.5	\$ 4,960.7	\$ 4,987.9	(32.2)	\$ (2,003.1)	\$ 3.9	\$ 2.3	\$ 7,955.2

The accompanying notes are an integral part of these statements.

REPUBLIC SERVICES, INC. UNAUDITED CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY - (CONTINUED) (in millions)

_		Republic Services, Inc. Stockholders' Equity												
-	Common Stock Shares Amount		Additional Paid-In Retained - Capital Earnings		Treasury Stock Shares Amount		Accumulated Other Comprehensive Income, Net of Tax		Non-controlling Interests In Consolidated Subsidiary		Total			
Balance as of December 31, 2017	350.1	\$ 3.5	\$	4,839.6	\$	4,152.5	(18.4)	\$	(1,059.4)	\$ 22.6	\$	2.3	\$	7,961.1
Adoption of accounting standard, net of tax	_			_		33.4				_		_		33.4
Net income	_	_		_		237.7	—		—	_		0.2		237.9
Other comprehensive income	—	_		_		_			_	19.1		—		19.1
Cash dividends declared	_	_		_		(113.3)	—		—	_		—		(113.3)
Issuances of common stock	1.0			20.6		_	(0.3)		(19.3)			—		1.3
Stock-based compensation	_	_		11.4		(1.0)	—		—	_		—		10.4
Purchase of common stock for treasury	_					_	(3.8)		(235.6)			—		(235.6)
Balance as of March 31, 2018	351.1	3.5		4,871.6		4,309.3	(22.5)		(1,314.3)	41.7	_	2.5		7,914.3
Net income	_			_		234.9			_			0.8		235.7
Other comprehensive income	_			_		_			_	11.1		_		11.1
Cash dividends declared	_			_		(112.4)			_	_		_		(112.4)
Issuances of common stock	0.3			7.1		—			(0.2)	_		_		6.9
Stock-based compensation	—	_		9.7		(0.9)			_	_		—		8.8
Purchase of common stock for treasury	_	_		_		_	(3.3)		(215.0)	—		—		(215.0)
Distributions paid	_	_		_		—	_		—	—		(0.6)		(0.6)
Balance as of June 30, 2018	351.4	\$ 3.5	\$	4,888.4	\$	4,430.9	(25.8)	\$	(1,529.5)	\$ 52.8	\$	2.7	\$	7,848.8

The accompanying notes are an integral part of these statements.

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

(III millions)	Sim Marsh	- E- J- J L 20
	2019	s Ended June 30, 2018
Cash provided by operating activities:		
Net income	\$ 485.8	3 \$ 473.6
Adjustments to reconcile net income to cash provided by operating activities:		
Depreciation, amortization, depletion and accretion	556.7	7 559.2
Non-cash interest expense	23.3	3 21.4
Restructuring related charges	4.5	5 13.3
Stock-based compensation	20.1	1 19.9
Deferred tax provision	40.3	3 52.4
Provision for doubtful accounts, net of adjustments	15.9	9 13.6
Loss on extinguishment of debt	_	- 0.3
(Gain) loss on disposition of assets and asset impairments, net	(0.2	2) 0.6
Environmental adjustments	(10.3	3) 2.5
Loss from unconsolidated equity method investment	23.1	1 0.1
Other non-cash items	3.0)	3) 0.5
Change in assets and liabilities, net of effects from business acquisitions and divestitures:		
Accounts receivable	(53.0)) (17.7)
Prepaid expenses and other assets	101.3	3 48.0
Accounts payable	12.8	30.7
Restructuring expenditures	(6.5	5) (12.6)
Capping, closure and post-closure expenditures	(23.8	3) (22.1)
Remediation expenditures	(17.8	3) (21.2)
Other liabilities	(35.8	3) (2.6)
Proceeds from retirement of certain hedging relationships		- 31.1
Cash provided by operating activities	1,135.0	5 1,191.0
Cash used in investing activities:		
Purchases of property and equipment	(588.7	7) (542.1)
Proceeds from sales of property and equipment	7.9	
Cash used in acquisitions and investments, net of cash and restricted cash acquired	(178.9	
Cash received from business divestitures	(0.2	
Purchases of restricted marketable securities	(8.2	2) (32.1)
Sales of restricted marketable securities	7.8	
Other	(2.3	
Cash used in investing activities	(762.6	<u> </u>
Cash used in financing activities:		<u>(1111)</u>
Proceeds from notes payable and long-term debt, net of fees	2,284.2	2 2,418.7
Proceeds from issuance of senior notes, net of discount and fees		- 781.9
Payments of notes payable and long-term debt and senior notes	(2,194.2	
Issuances of common stock, net	(3.1	, , , , ,
Purchases of common stock for treasury	(202.5	,
Cash dividends paid	(241.7	, , , ,
Distributions paid to noncontrolling interests in consolidated subsidiary	(0.2	
Other	(5.1	
Cash used in financing activities	(362.6	<u> </u>
Increase (decrease) in cash, cash equivalents, restricted cash and restricted cash equivalents	10.4	<u> </u>
Cash, cash equivalents, restricted cash and restricted cash equivalents at beginning of year	133.3	()
Cash, cash equivalents, restricted cash and restricted cash equivalents at beginning of year Cash, cash equivalents, restricted cash and restricted cash equivalents at end of period	\$ 143.7	
כמהה, כמה בקודרתכונה, וכשרוכנים כמהו שום וכשרוכים כמהו בקודעתכונה מו כוום טו ויבווטם	ə 143.7	φ 132,/

The accompanying notes are an integral part of these 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 the second largest provider of non-hazardous solid waste collection, transfer, recycling, disposal and energy services in the United States, as measured by revenue. We manage and evaluate our operations through two field groups, Group 1 and Group 2, which we have identified as our reportable segments.

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 either the equity method or cost method of accounting, as appropriate. 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 has 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, 2018.

For comparative purposes, certain prior year amounts have been reclassified to conform to the current year presentation. 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 long-lived assets, including recoverability, development costs, and final capping, closure and post-closure costs; our valuation allowances for accounts receivable and deferred tax assets; our liabilities for potential litigation, claims and assessments; our liabilities for environmental remediation, multiemployer pension funds, employee benefit plans, deferred taxes, uncertain tax positions, and insurance reserves; and our estimates of the fair values of assets acquired and liabilities assumed in any acquisition. Each of these items is discussed in more detail in our description of our significant accounting policies in 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, 2018. Our actual results may differ significantly from our estimates.



New Accounting Pronouncements

Accounting Standards Adopted

Effective January 1, 2019, we adopted the following accounting standard updates (ASUs) as issued by the Financial Accounting Standards Board (FASB):

ASU		Effective Date
ASU 2016-02	Leases (Topic 842)	January 1, 2019
ASU 2017-12	Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities	January 1, 2019
ASU 2018-16	Derivatives and Hedging (Topic 815): Inclusion of the Secured Overnight Financing Rate (SOFR) Overnight Index Swap (OIS) Rate as a Benchmark Interest Rate for Hedge Accounting	January 1, 2019
ASU 2018-02	Income Statement - Reporting Comprehensive Income (Topic 220) Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income	January 1, 2019
ASU 2018-07	Compensation—Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting	January 1, 2019
ASU 2018-15	Intangibles - Goodwill and Other - Internal-Use Software (Subtopic 350-40) Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract	January 1, 2019

Leases

Effective January 1, 2019, we adopted ASU 2016-02, *Leases (Topic 842)* (ASC 842 or the new leasing standard) using the optional transition method prescribed by ASU 2018-11, *Leases (Topic 842): Targeted Improvements*. Upon adoption of the new leasing standard, we recognized a right-of-use asset and a right-of-use liability for leases classified as operating leases in our consolidated balance sheet. We applied the package of practical expedients to leases that commenced before the effective date whereby we elected to not reassess the following: (i) whether any expired or existing contracts contain leases; (ii) the lease classification for any expired or existing leases; and (iii) initial direct costs for any existing leases.

To assist in quantifying the impact on our consolidated financial statements and supplementing our existing disclosures, we designed internal controls over the adoption and implemented a software solution to manage and account for our leases. As of January 1, 2019, we recognized a right-of-use liability for our operating leases of \$256.3 million classified as other accrued liabilities and other long-term liabilities and a corresponding right-of-use asset of \$236.2 million classified as other long-term assets in our consolidated balance sheet. The right-of-use asset reflects adjustments for certain favorable or unfavorable leases recognized through acquisitions, prepaid or accrued rent, asset impairments and lease incentives, including but not limited to cash incentives, rent abatement or leasehold improvements paid by the lessor. We did not recognize a cumulative effect adjustment to retained earnings as of January 1, 2019 as the standard did not have a material impact on our consolidated statement of income. In addition, the standard did not have a material impact on our accounting for finance (capital) leases.

We assessed the disclosure requirements under the new leasing standard as part of our adoption. Refer to Note 4, *Other Assets*, Note 5, *Other Liabilities*, and Note 8, *Leases*, included herein for our enhanced supplemental disclosures.

Derivatives and Hedging

Effective January 1, 2019, we adopted the FASB's ASU 2017-12, *Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities* (ASU 2017-12). We adopted the new guidance over income statement presentation and enhanced disclosures prospectively, and we adopted the guidance over the elimination of the separate measurement of ineffectiveness on a modified retrospective basis to existing hedging relationships as of the date of adoption. Prior to adoption, the net periodic earnings of our fair value hedges were presented within other income, net in our consolidated statement of income and are now presented within interest expense in our consolidated statement of income, i.e. the same line item as the effect of the hedged item. Our adoption of ASU 2017-12 did not have a material impact on our consolidated financial statements.

Effective January 1, 2019, in conjunction with ASU 2017-12, we adopted the FASB's ASU 2018-16, *Derivatives and Hedging (Topic 815): Inclusion of the Secured Overnight Financing Rate (SOFR) Overnight Index Swap (OIS) Rate as a Benchmark Interest Rate for Hedge Accounting* (ASU 2018-16) on a prospective basis. LIBOR is expected to no longer be published by 2021. Consequently, the FASB added the OIS rate based on SOFR as an eligible benchmark interest rate in order to facilitate the LIBOR to SOFR transition and provide sufficient lead time for entities to prepare for changes to interest rate risk hedging strategies for both risk management and hedge accounting purposes. We are developing a plan to transition our interest rate

swaps from LIBOR to SOFR. Our adoption of ASU 2018-16 did not have a material impact on our consolidated financial statements for the six months ended June 30, 2019.

Reclassifications of Certain Tax Effects from Accumulated Other Comprehensive Income

Effective January 1, 2019, we adopted the FASB's ASU 2018-02, *Income Statement - Reporting Comprehensive Income (Topic 220) Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income* (ASU 2018-02). The amendments eliminate the stranded tax effects resulting from the Tax Cuts and Jobs Act (the Tax Act). The amendments only relate to the reclassification of the income tax effects of the Tax Act, and the underlying guidance that requires that the effect of a change in tax laws or rates be included in income from continuing operations is not affected. Consequently, we reclassified \$5.4 million of stranded tax effects from accumulated other comprehensive income to retained earnings.

Improvements to Nonemployee Share-Based Payment Accounting

Effective January 1, 2019, we adopted the FASB's ASU 2018-07, *Compensation - Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting* (ASU 2018-07). ASU 2018-07 simplifies several aspects of the accounting for nonemployee share-based payment transactions resulting from expanding the scope of Topic 718, Compensation - Stock Compensation, to include share-based payment transactions for acquiring goods and services from nonemployees. We will apply the guidance prescribed by this update on a prospective basis. Our adoption of ASU 2018-07 did not have a material impact on our consolidated financial statements for the six months ended June 30, 2019.

Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract

Effective January 1, 2019, we early adopted the FASB's ASU 2018-15, *Intangibles—Goodwill and Other—Internal-Use Software (Subtopic 350-40) No.* 2018-15 *Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract* (ASU 2018-15) using a prospective approach. In accordance with the standard, we present capitalized implementation costs incurred in a hosting arrangement that is a service contract as other assets on our consolidated balance sheet. This presentation is consistent with the presentation of the prepayment of fees for the hosting arrangement. Historically, implementation costs were presented as a component of property and equipment, net.

As of January 1, 2019, we reclassified \$28.7 million of capitalized implementation costs incurred in a hosting arrangement that is a service contract from property and equipment, net to other assets on our consolidated balance sheet. During the three and six months ended June 30, 2019, we recognized \$8.2 million and \$16.3 million, respectively, of amortization expense for the prepayment of fees and capitalized implementation costs incurred in a hosting arrangement as a component of depreciation, amortization and depletion in our consolidated statement of income. During the six months ended June 30, 2019, we recognized \$10.2 million of payments for capitalized implementation costs in the same manner as payments made for fees associated with the hosting arrangement as a component of cash provided by operating activities in our consolidated statement of cash flows.

Accounting Standards Issued but not yet Adopted

Measurement of Credit Losses on Financial Instruments

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments* (ASU 2016-13). ASU 2016-13 requires the measurement of all expected credit losses for financial assets held at the reporting date based on historical experience, current conditions, and reasonable and supportable forecasts. ASU 2016-13 will replace the incurred loss impairment methodology in current GAAP with a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information to inform credit loss estimates. ASU 2016-13 is effective for public business entities for fiscal years beginning after December 15, 2019, including interim periods within that fiscal year. We are currently assessing the effect this guidance may have on our consolidated financial statements.

Changes to the Disclosure Requirements for Fair Value Measurement

In August 2018, the FASB issued ASU 2018-13, *Fair Value Measurement (Topic 820) Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement* (ASU 2018-13). ASU 2018-13 modifies the disclosure requirements on fair value measurements in Topic 820, Fair Value Measurement. ASU 2018-13 is effective for public business entities for fiscal years beginning after December 15, 2019, including interim periods within that fiscal year. We are currently assessing the effect this guidance may have on our consolidated financial statements.

Changes to the Disclosure Requirements for Defined Benefit Plans

In August 2018, the FASB issued ASU 2018-14, *Compensation—Retirement Benefits—Defined Benefit Plans—General (Subtopic 715-20) Disclosure Framework—Changes to the Disclosure Requirements for Defined Benefit Plans* (ASU 2018-14). ASU 2018-14 removes disclosures that no longer are considered cost beneficial, clarifies the specific requirements of disclosures, and adds disclosure requirements identified as relevant. Although narrow in scope, the amendments are considered an important part of the FASB's efforts to improve the effectiveness of disclosures in the notes to financial statements. ASU 2018-14 is effective for public business entities for fiscal years beginning after December 15, 2020, including interim periods within that fiscal year. Early adoption is permitted for all entities. 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 waste businesses during the six months ended June 30, 2019 and 2018. The purchase price for these business acquisitions and the allocations of the purchase price follows:

	2019	2018
Purchase price:		
Cash used in acquisitions, net of cash acquired	\$ 152.6	\$ 63.6
Contingent consideration	1.6	
Holdbacks	14.1	8.4
Fair value, future minimum finance lease payments	0.7	
Total	 169.0	 72.0
Allocated as follows:		
Accounts receivable	7.3	1.5
Landfill airspace	—	22.2
Property and equipment	36.6	12.1
Other assets	5.3	0.1
Inventory	—	0.2
Accounts payable	(3.0)	(0.3)
Closure and post-closure liabilities	—	(1.7)
Other liabilities	(5.5)	(3.9)
Fair value of tangible assets acquired and liabilities assumed	 40.7	 30.2
Excess purchase price to be allocated	\$ 128.3	\$ 41.8
Excess purchase price allocated as follows:		
Other intangible assets	\$ 28.4	\$ 10.5
Goodwill	 99.9	 31.3
Total allocated	\$ 128.3	\$ 41.8

The purchase price allocations are preliminary and are based on information existing at the acquisition dates. Accordingly, the purchase price allocations are subject to change. Substantially all of the goodwill and intangible assets recorded for these acquisitions are deductible for tax purposes. These acquisitions are not material to our results of operations, individually or in the aggregate. As a result, no pro forma financial information is provided.

Investments

In 2019 and 2018, 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 noncontrolling interests, we made certain capital contributions of \$13.8 million and \$4.0 million, which were recorded to other assets in our June 30, 2019 and 2018 consolidated balance sheets, respectively. During the six months ended June 30, 2019 and 2018, we also reduced the carrying value of these investments by \$23.1 million and \$0.1 million, respectively, as a result of tax credits allocated to us, cash distributions and our share of income and loss pursuant to the terms of the limited liability company agreements.

Restructuring Charges

In January 2018, we eliminated certain positions following the consolidation of select back-office functions, including but not limited to the integration of our National Accounts support functions into our existing corporate support functions. These changes include a reduction in administrative staffing and closing of certain office locations.

During the three and six months ended June 30, 2019, we incurred restructuring charges of \$1.5 million and \$4.5 million, respectively, that primarily related to upgrades to our back-office software systems. During the three and six months ended June 30, 2018, we incurred restructuring charges of \$3.8 million and \$13.3 million, respectively, that primarily consisted of severance and other employee termination benefits and the closure of offices with lease agreements with non-cancelable terms. We paid \$6.5 million and \$12.6 million during the six months ended June 30, 2019 and 2018, respectively, related to these restructuring efforts.

In 2019, we expect to incur additional restructuring charges of approximately \$5 million primarily related to upgrades to our back-office software systems. Substantially all of these restructuring charges will be recorded in our corporate segment.

3. GOODWILL AND OTHER INTANGIBLE ASSETS, NET

Our senior management evaluates, oversees and manages the financial performance of our operations through two field groups, referred to as Group 1 and Group 2.

Goodwill

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

	Balance as of December 31, 2018		A	cquisitions	D	Divestitures	Adjustments to Acquisitions		Balance as of June 30, 2019	
Group 1	\$	6,150.6	\$	78.0	\$	_	\$	(2.3)	\$	6,226.3
Group 2		5,249.5		21.9		—		—		5,271.4
Total	\$	11,400.1	\$	99.9	\$	_	\$	(2.3)	\$	11,497.7

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 18 years. A summary of the activity and balances by intangible asset type follows:

		Gross Intang	ible	Assets		Accumulated Amortization								
	Balance as of December 31, 2018	Acquisitions		Adjustments and Other ⁽¹⁾	alance as of ne 30, 2019		Balance as of December 31, 2018		Additions Charged to Expense		Adjustments and Other ⁽¹⁾	Balance as of une 30, 2019	As	her Intangible sets, Net as of une 30, 2019
Customer relationships, franchise and other municipal agreements	\$ 692.4	\$ 23.6	\$	_	\$ 716.0	\$	(607.2)	\$	(7.6)	\$	0.2	\$ (614.6)	\$	101.4
Non-compete agreements	37.0	6.3		0.9	44.2		(31.5)		(1.8)		_	(33.3)		10.9
Other intangible assets	64.3			(6.1)	58.2		(48.5)		(0.4)		4.2	(44.7)		13.5
Total	\$ 793.7	\$ 29.9	\$	(5.2)	\$ 818.4	\$	(687.2)	\$	(9.8)	\$	4.4	\$ (692.6)	\$	125.8

(1) In accordance with our adoption of the new leasing standard, we transferred \$1.9 million of net favorable lease assets recognized through historical acquisitions to other assets as of January 1, 2019.



4. OTHER ASSETS

Prepaid Expenses and Other Current Assets

A summary of prepaid expenses and other current assets as of June 30, 2019 and December 31, 2018 follows:

	2019	2018
Prepaid expenses	\$ 67.4	\$ 75.6
Income tax receivable	64.8	187.7
Inventories	56.2	53.1
Reinsurance receivable	32.3	25.7
Other non-trade receivables	21.5	34.4
Prepaid fees for cloud-based hosting arrangements, current	7.9	10.2
Other current assets	4.5	4.5
Total	\$ 254.6	\$ 391.2

Other Assets

A summary of other assets as of June 30, 2019 and December 31, 2018 follows:

	2019	2018
Right-of-use lease asset ⁽²⁾	\$ 233.1	\$
Deferred compensation plan	107.1	100.0
Deferred contract costs and sales commissions	84.4	89.2
Reinsurance receivable	77.7	68.0
Investments	63.3	73.0
Prepaid fees and capitalized implementation costs for cloud-based hosting arrangements ⁽¹⁾	39.2	—
Amounts recoverable for capping, closure and post-closure obligations	32.1	30.5
Interest rate swaps and locks	11.6	12.8
Deferred financing costs	3.6	4.2
Other	34.3	40.1
Total	\$ 686.4	\$ 417.8

(1) In accordance with our adoption of ASU 2018-15, capitalized implementation costs for cloud-based hosting arrangements are presented as other assets as of June 30, 2019. Similar costs are presented as a component of property and equipment, net as of December 31, 2018.

(2) Refer to Note 1, Basis of Presentation, for discussion regarding our adoption of ASC 842.

5. OTHER LIABILITIES

Other Accrued Liabilities

A summary of other accrued liabilities as of June 30, 2019 and December 31, 2018 follows:

	 2019	2018
Insurance reserves, current	\$ 162.7	\$ 152.9
Accrued payroll and benefits	146.6	205.1
Accrued fees and taxes	130.0	124.2
Accrued dividends	120.2	121.0
Operating lease liabilities, current	35.1	—
Ceded insurance reserves, current	32.3	25.7
Interest rate swap locks	31.8	—
Accrued professional fees and legal settlement reserves	9.6	13.1
Other	72.9	 86.6
Total	\$ 741.2	\$ 728.6

Other Long-Term Liabilities

A summary of other long-term liabilities as of June 30, 2019 and December 31, 2018 follows:

	2019	2018
Operating lease liabilities ⁽¹⁾	\$ 217.3	\$ —
Deferred compensation plan liability	110.6	96.0
Ceded insurance reserves	77.7	68.0
Contingent purchase price and acquisition holdbacks	68.2	73.9
Withdrawal liability - multiemployer pension funds	12.1	12.2
Legal settlement reserves	10.0	10.0
Pension and other post-retirement liabilities	6.1	6.0
Interest rate swap locks	0.6	
Other	 49.3	55.3
Total	\$ 551.9	\$ 321.4

(1) Refer to Note 1, Basis of Presentation, for discussion regarding our adoption of ASC 842.

6. LANDFILL AND ENVIRONMENTAL COSTS

As of June 30, 2019, we owned or operated 190 active landfills with total available disposal capacity of approximately 5.1 billion in-place cubic yards. Additionally, we have post-closure responsibility for 129 closed landfills.

Accrued Landfill and Environmental Costs

A summary of accrued landfill and environmental liabilities as of June 30, 2019 and December 31, 2018 follows:

	2019	2018
Landfill final capping, closure and post-closure liabilities	\$ 1,330.4	\$ 1,292.0
Environmental remediation	521.7	540.2
Total accrued landfill and environmental costs	 1,852.1	 1,832.2
Less: current portion	(142.3)	(130.6)
Long-term portion	\$ 1,709.8	\$ 1,701.6

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, 2019 and 2018:

	2019	2018
Asset retirement obligation liabilities, beginning of year	\$ 1,292.0	\$ 1,257.7
Non-cash additions	21.6	21.8
Acquisitions, net of divestitures and other adjustments	0.2	1.9
Asset retirement obligation adjustments	(0.5)	(17.6)
Payments	(23.8)	(22.1)
Accretion expense	40.9	40.6
Asset retirement obligation liabilities, end of period	1,330.4	 1,282.3
Less: current portion	(76.8)	(81.0)
Long-term portion	\$ 1,253.6	\$ 1,201.3

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.

The fair value of assets that are legally restricted for purposes of settling final capping, closure and post-closure liabilities was \$30.1 million and \$29.5 million as of June 30, 2019 and December 31, 2018, respectively, and is included in restricted cash and marketable securities in our consolidated balance sheets.

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 the 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, 2019 would be approximately \$369 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, 2019 and 2018:

	2019	2018
Environmental remediation liabilities, beginning of year	\$ 540.2	\$ 564.0
Net adjustments charged to expense	(10.3)	2.5
Payments	(17.8)	(21.2)
Accretion expense (non-cash interest expense)	9.6	10.1
Environmental remediation liabilities, end of period	521.7	 555.4
Less: current portion	(65.5)	(69.5)
Long-term portion	\$ 456.2	\$ 485.9

Bridgeton Landfill. During the six months ended June 30, 2019, we paid \$6.9 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, 2019, the remediation liability recorded for this site was \$154.2 million, of which approximately \$8 million is expected to be paid during the remainder of 2019. We believe the remaining reasonably possible high end of our range would be approximately \$171 million higher than the amount recorded as of June 30, 2019.

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 U.S. 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 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 notes payable, finance leases and long-term debt as of June 30, 2019 and December 31, 2018 is listed in the following table, and is adjusted for the fair value of interest rate swaps, unamortized discounts, deferred issuance costs and the unamortized portion of adjustments to fair value recorded in purchase accounting. Original issue discounts 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.

MaturityInterest RatePrincipalAdjustmentsCarrying ValuePCredit facilities:Uncommitted Credit FacilityVariable\$ 89.0\$\$ 89.0\$June 2023Variable170.0170.05Senior notes:Senior notes:September 20195.500650.0(0.3)649.71March 20205.000850.0(0.6)849.4111November 20215.250600.0(1.0)599.011June 20223.550850.0(3.2)846.811March 20253.200500.0(3.2)496.111June 20262.900500.0(16.2)495.811November 20273.375650.0(5.5)644.511March 20356.086181.9(14.2)167.711March 20406.200399.9(3.7)396.211March 20405.700385.7(5.3)380.41	Principal 33.4 \$ 33.4 \$ 159.0 650.0 650.0 600.0 600.0 650.0 550.0 550.0 550.0 500.0 500.0 650.0 650.0 650.0 650.0 650.0 650.0 650.0 650.0 650.0 650.0 650.0 650.0 650.0 650.0 650.0 650.0 650.0 650.0 500.0	Adjustments (0.9) (1.0) (1.2) (3.6) (5.5) (4.3) (4.4) (5.9)	Carrying Value \$ 33.4 159.0 649.1 649.1 849.0 598.8 846.4 544.5 495.7 495.6
Uncommitted Credit Facility Variable \$ 89.0 \$ \$ 89.0 \$ June 2023 Variable 170.0	159.0 650.0 850.0 600.0 850.0 550.0 500.0 500.0	(0.9) (1.0) (1.2) (3.6) (5.5) (4.3) (4.4)	159.0 649.1 849.0 598.8 846.4 544.5 495.7 495.7
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March 2040 6.200 399.9 (3.7) 396.2	800.0	(17.3)	782.7
	181.9	(14.4)	167.5
May 2041 5.700 385.7 (5.3) 380.4	399.9	(3.8)	396.1
	385.7	(5.3)	380.4
Debentures:			
May 2021 9.250 35.3 (0.6) 34.7	35.3	(0.7)	34.6
September 2035 7.400 148.1 (33.4) 114.7	148.1	(33.8)	114.3
Tax-exempt:			
2020 - 2049 1.500 - 1.950 1,072.4 (6.1) 1,066.3	1,042.4	(5.6)	1,036.8
Finance leases:			
2019 - 2046 3.070 - 12.203 107.7 — 107.7	109.5	—	109.5
Total Debt \$ 8,540.0 \$ (94.8) 8,445.2 \$	8,445.2 \$	(107.7)	8,337.5
Less: current portion (1,561.3)			(690.7)
Long-term portion \$ 6,883.9			\$ 7,646.8

Credit Facilities

In June 2018, we entered into a \$2.25 billion unsecured revolving credit facility (the Credit Facility), which replaced our \$1.0 billion and \$1.25 billion unsecured credit facilities that would have matured in May 2021 and June 2019, respectively. The Credit Facility matures in June 2023. We may request two one-year extensions of the maturity date but none of the lenders are committed to participate in such extension. 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. At our option, borrowings under the Credit Facility bear interest at a Base Rate, or a Eurodollar Rate, plus an applicable margin based on our Debt Ratings (all as defined in the Credit Facility agreement).

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. Availability under our Credit Facility totaled \$1,701.4 million and \$1,694.1 million as of June 30, 2019 and December 31, 2018, respectively. 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.

As of June 30, 2019 and December 31, 2018, we had \$170.0 million and \$159.0 million of borrowings under our Credit Facility, respectively. We had \$361.3 million and \$379.6 million of letters of credit outstanding under our Credit Facility as of June 30, 2019 and December 31, 2018, respectively.

We also have an Uncommitted Credit Facility, which bears interest at LIBOR, plus an applicable margin and is subject to facility fees defined in the agreement, regardless of usage. We can use borrowings under the Uncommitted Credit Facility for working capital 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. We had \$89.0 million of borrowings and \$33.4 million of borrowings outstanding under our Uncommitted Credit Facility as of June 30, 2019 and December 31, 2018, respectively.

Senior Notes and Debentures

In 2018, we issued \$800.0 million of 3.950% senior notes due 2028. Our senior notes and debentures are general unsecured obligations. Interest is payable semi-annually.

Tax-Exempt Financings

During the second quarter of 2019, we refinanced \$35.0 million of tax-exempt financings and issued \$30.0 million of new tax-exempt financings. As of June 30, 2019, we had \$1,066.3 million of certain variable rate tax-exempt financings outstanding with maturities ranging from 2020 to 2049. As of December 31, 2018, we had \$1,036.8 million of certain variable rate tax-exempt financings outstanding with maturities ranging from 2019 to 2044. Approximately 100% of our tax-exempt financings are remarketed quarterly 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. To date, the remarketing agents have been able to remarket all of our variable rate unsecured tax-exempt bonds.

Finance Leases

We had finance lease liabilities of \$107.7 million and \$109.5 million as of June 30, 2019 and December 31, 2018, respectively, with maturities ranging from 2019 to 2046.

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).

Fair Value Hedges

During the second half of 2013, we entered into various interest rate swap agreements relative to our 4.750% fixed rate senior notes due in May 2023. The goal was to reduce overall borrowing costs and rebalance our debt portfolio's ratio of fixed to floating interest rates. As of June 30, 2019 and December 31, 2018, these swap agreements had a total notional value of \$300.0 million and mature in May 2023, which is identical to the maturity of the hedged senior notes. We pay interest at floating rates based on changes in LIBOR and receive interest at a fixed rate of 4.750%. These transactions were designated as fair value hedges because the swaps hedge against the changes in fair value of the fixed rate senior notes resulting from changes in interest rates.

As of June 30, 2019 and December 31, 2018, the interest rate swap agreements are reflected at their fair value of \$11.6 million and \$2.5 million, respectively, and are included in other assets in our consolidated balance sheet. To the extent they are effective, these interest rate swap agreements are included as an adjustment to long-term debt in our consolidated balance sheets.

For the three months ended June 30, 2019 and 2018, we recognized a loss of \$5.5 million and a gain of \$2.5 million, respectively, on the change in fair value of the hedged senior notes attributable to changes in the benchmark interest rate, with an offsetting gain of \$5.7 million and an offsetting loss of \$2.7 million respectively, on the related interest rate swaps. For the six months ended June 30, 2019 and 2018, we recognized a loss of \$8.9 million and a gain of \$9.2 million, respectively, on the change in fair value of the hedged senior notes attributable to changes in the benchmark interest rate swaps.



\$9.1 million and an offsetting loss of \$9.5 million respectively, on the related interest rate swaps. The difference of these fair value changes for the six months ended June 30, 2018 was recorded directly in earnings as other income, net. In accordance with our adoption of ASU 2017-12, the difference of these fair value changes for the six months ended June 30, 2019 was recorded directly in earnings as an adjustment to interest expense in our consolidated statement of income.

For further detail regarding the effect of our fair value hedging on interest expense, refer to Note 12, *Financial Instruments*, to our unaudited consolidated financial instruments in Item 1 of Part I of this Quarterly Report on Form 10-Q.

Cash Flow Hedges

As of June 30, 2019 and December 31, 2018, our interest rate lock agreements had an aggregate notional value of \$875.0 million and \$725.0 million, respectively, with fixed interest rates ranging from 1.900% to 3.250%. We entered into these transactions to manage exposure to fluctuations in interest rates in anticipation of planned future issuances of senior notes in 2019 through 2021. Upon the expected issuance of senior notes, we will terminate the interest rate locks and settle with our counterparties. These transactions were accounted for as cash flow hedges. The fair value of our interest rate locks 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). The aggregate fair values of the outstanding interest rate locks as of June 30, 2019 were assets of \$0.3 million, which were recorded in prepaid expenses and other current assets in our consolidated balance sheet and liabilities of \$32.4 million, which were recorded in other accrued liabilities and other long-term liabilities in our consolidated balance sheet. As of December 31, 2018, the aggregate fair values of the outstanding interest rate locks were assets of \$10.3 million and were recorded in other assets in our consolidated balance sheet.

Total unrealized loss recognized in other comprehensive income for interest rate locks was \$19.9 million and \$12.2 million for the three months ended June 30, 2019 and 2018, respectively. Total unrealized loss (gain) recognized in other comprehensive income for interest rate locks was \$31.2 million and \$(6.0) million for the six months ended June 30, 2019 and 2018, respectively.

As of June 30, 2019 and December 31, 2018, our previously terminated interest rate locks were recorded as components of accumulated other comprehensive income, net of tax of \$10.9 million and \$11.2 million, respectively. The amortization of the terminated interest rate locks is recorded as an adjustment to interest expense over the life of the issued debt using the effective interest method. We expect to amortize approximately \$0.9 million of net interest income over the next 12 months as a yield adjustment of our senior notes.

For detail regarding the effect of our cash flow hedging on interest expense, refer to Note 12, *Financial Instruments*, to our unaudited consolidated financial instruments in Item 1 of Part I of this Quarterly Report on Form 10-Q.

8. LEASES

We lease property and equipment in the ordinary course of business under various lease agreements. The most significant lease obligations are for real property and equipment specific to our industry, including property operated as a landfill or transfer station and operating equipment. Our leases have varying terms. Some may include renewal or purchase options, escalation clauses, restrictions, penalties or other obligations that we consider in determining minimum lease payments. Our lease terms include options to renew the lease when it is reasonably certain that we will exercise the option.

Certain leases require payments that are variable in nature based on volume measurements, e.g. a fixed rate per ton at our landfills. In addition, certain rental payments are adjusted annually based on changes in an underlying base index such as a consumer price index. Variable lease payments are recognized in our consolidated statement of income in the period incurred. Our lease agreements do not contain any material residual value guarantees or material restrictive covenants. We generally account for lease components separately from non-lease components.

Leases are classified as either operating leases or finance leases, as appropriate. Leases with an initial term of 12 months or less are not recorded on our consolidated balance sheet.

Operating Leases

Many of our leases are operating leases. Operating lease classification generally can be attributed to either (1) relatively low fixed minimum lease payments (including, for example, real property lease payments that are not fixed and vary based on the volume of waste we receive or process), or (2) minimum lease terms that are shorter than the asset's economic useful life. We expect that, in the ordinary course of business, our operating leases will be renewed, replaced by other leases, or replaced with capital expenditures. We recognize rent expense for these leases on a straight-line basis over the lease term.

We recognize a right-of-use liability and right-of-use asset for leases classified as operating leases in our consolidated balance sheet upon lease commencement. The right-of-use liability represents the present value of the remaining lease payments. An

implicit rate is often not readily available for these leases. As such, we use our incremental borrowing rate at the commencement date to determine the present value of the lease payments. Our incremental borrowing rate represents the rate of interest that we would have to pay to borrow on a collateralized basis over a similar term in a similar economic environment. In addition, we recognize a corresponding right-of-use asset, which represents our right to use an underlying asset for the lease term. The right-of-use asset is adjusted for certain favorable or unfavorable leases recognized through acquisition, prepaid or accrued rent, asset impairments and lease incentives, including but not limited to cash incentives, rent abatement or leasehold improvements paid by the lessor.

Finance Leases

We capitalize assets acquired under finance leases at lease commencement and amortize them to depreciation expense over the lesser of the useful life of the asset or the lease term on either a straight-line or a units-of-consumption basis, depending on the asset leased. We record the present value of the related lease payments as a debt obligation. Our finance lease liability relates primarily to certain long-term landfill operating agreements that require minimum lease payments with offsetting finance lease assets recorded as part of the landfill development costs.

2010

A summary of the lease classification on our consolidated balance sheet as of June 30, 2019 follows:

		2019
Assets		
Operating lease assets	Other assets	\$ 233.1
Finance lease assets	Property and equipment, net	119.1
Total lease assets		\$ 352.2
<u>Liabilities</u>		
Current		
Operating	Other accrued liabilities	\$ 35.1
Finance	Notes payable and current maturities of long-term debt	6.0
Long-term		
Operating	Other long-term liabilities	217.3
Finance	Long-term debt, net of current maturities	101.7
Total lease liabilities		\$ 360.1

A summary of the lease cost reflected in our consolidated statement of operations for the three and six months ended June 30, 2019 follows:

		Months Ended e 30, 2019	-	/Ionths Ended ne 30, 2019
Operating lease cost				
Fixed lease cost	Cost of operations	\$ 9.2	\$	18.5
Short-term lease cost	Cost of operations	10.6		20.7
Variable lease cost	Cost of operations	4.7		8.9
Finance lease cost				
Amortization of leased assets	Depreciation amortization, and depletion	1.4		2.7
Interest on lease liabilities	Interest expense	1.8		3.7
Variable lease cost	Interest expense	1.3		2.7
Total lease cost		\$ 29.0	\$	57.2

As of June 30, 2019, aggregate principal payments for operating and finance leases follows:

	Operating Leases	Finance Leases	Total
2019 (remaining)	\$ 22.4	\$ 6.8	\$ 29.2
2020	40.0	13.4	53.4
2021	36.6	13.1	49.7
2022	31.6	12.5	44.1
2023	30.1	37.9	68.0
Thereafter	141.9	127.3	269.2
Total lease payments	302.6	211.0	513.6
Less: interest	(50.2)	(103.3)	(153.5)
Present value of lease liabilities	\$ 252.4	\$ 107.7	\$ 360.1

A summary of the weighted-average remaining lease term and weighted-average discount rate as of June 30, 2019 follows:

	June 30, 2019
Weighted-average remaining lease term (years)	
Operating leases	9.0
Finance leases	15.3
Weighted-average discount rate	
Operating leases	3.8 %
Finance leases	7.2 %

Supplemental cash flow and other non-cash information for the three and six months ended June 30, 2019 follows:

	Months Ended e 30, 2019	5	Six Months Ended June 30, 2019
Cash paid for amounts included in the measurement of lease liabilities	 		
Operating cash flows from operating leases	\$ 26.6	\$	51.0
Operating cash flows from finance leases	\$ 3.1	\$	6.4
Financing cash flows from finance leases	\$ 1.1	\$	2.8
Leased assets obtained in exchange for new finance lease liabilities	\$ 0.8	\$	0.8
Leased assets obtained in exchange for new operating lease liabilities	\$ 7.7	\$	9.4

9. INCOME TAXES

Our effective tax rate, exclusive of non-controlling interests, for the three and six months ended June 30, 2019 was 23.6% and 24.3%, respectively. Our effective tax rate, exclusive of non-controlling interests, for the three and six months ended June 30, 2018 was 24.7% and 24.1%, respectively.

Cash paid for income taxes was a net refund of \$10.5 million and a net payment of \$30.0 million for the six months ended June 30, 2019 and 2018, respectively. Cash taxes have been favorably impacted from the receipt of funds from amended returns filed during 2018.

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.

As a result of changes in U.S. tax law and our ongoing efforts to evaluate, streamline and maximize the efficiency of our tax footprint, we could adjust our valuation allowance in a future period if there is sufficient evidence to support a conclusion that it is more certain than not that a portion of the state net operating loss carryforwards, on which we currently provide a valuation allowance, would be realized. Future changes in our valuation allowance could have a material effect on our results of operations in the period recorded.

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, 2019, the valuation allowance associated with our state loss carryforwards was approximately \$73 million.

We are subject to income tax in the United States and Puerto Rico, as well as in multiple state 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. We are currently under examination or administrative review by the Internal Revenue Service, state and local taxing authorities and Puerto Rico for various tax years.

We believe that our 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, 2019, 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 statements of income. As of June 30, 2019, we accrued a liability for penalties of \$0.5 million and a liability for interest (including interest on penalties) of \$14.9 million related to our uncertain tax positions.

10. STOCK REPURCHASES, DIVIDENDS AND EARNINGS PER SHARE

Available Shares

We currently have approximately 12.8 million shares of common stock reserved for future grants under the Republic Services, Inc. Amended and Restated 2007 Stock Incentive Plan.

Stock Repurchases

Stock repurchase activity during the three and six months ended June 30, 2019 and 2018 follows (in millions, except per share amounts):

	Three Month	ns Ended June		
	3	80,	Six Months E	nded June 30,
	2019	2018	2019	2018
Number of shares repurchased	1.1	3.3	2.6	7.1
Amount paid	\$ 91.0	\$ 219.5	\$ 202.5	\$ 474.0
Weighted average cost per share	\$ 82.63	\$ 67.47	\$ 78.11	\$ 67.05

As of June 30, 2019 and 2018, there were less than 0.1 million and 0.2 million repurchased shares pending settlement, respectively. As of June 30, 2019 and 2018, \$0.9 million and \$10.3 million of share repurchases were unpaid and included within other accrued liabilities, respectively.

In October 2017, our Board of Directors added \$2.0 billion to the existing share repurchase authorization that now extends through December 31, 2020. 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, 2019, the remaining authorized purchase capacity under our October 2017 repurchase program was \$901.6 million.



Dividends

In April 2019, our Board of Directors approved a quarterly dividend of \$0.375 per share. Cash dividends declared were \$240.9 million for the six months ended June 30, 2019. As of June 30, 2019, we recorded a quarterly dividend payable of \$120.2 million to shareholders of record at the close of business on July 1, 2019.

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 RSUs and PSUs) 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 assumed exercise of employee stock options, unvested RSUs and unvested 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, 2019 and 2018 are calculated as follows (in thousands, except per share amounts):

	Th	ree Months	End	ed June 30,	S	ix Months E	Ended June 30,		
	2019 2018					2019		2018	
Basic earnings per share:									
Net income attributable to Republic Services, Inc.	\$	251,500	\$	234,900	\$	485,700	\$	472,600	
Weighted average common shares outstanding		321,718		327,365		322,000		329,003	
Basic earnings per share	\$	0.78	\$	0.72	\$	1.51	\$	1.44	
Diluted earnings per share:									
Net income attributable to Republic Services, Inc.	\$	251,500	\$	234,900	\$	485,700	\$	472,600	
Weighted average common shares outstanding		321,718		327,365		322,000		329,003	
Effect of dilutive securities:									
Options to purchase common stock		432		810		469		858	
Unvested RSU awards		240		202		234		231	
Unvested PSU awards		375		453		406		421	
Weighted average common and common equivalent shares outstanding		322,765		328,830		323,109		330,513	
Diluted earnings per share	\$	0.78	\$	0.71	\$	1.50	\$	1.43	

There were no antidilutive securities during the three and six months ended June 30, 2019 and 2018.

11. CHANGES IN ACCUMULATED OTHER COMPREHENSIVE INCOME BY COMPONENT

A summary of changes in accumulated other comprehensive income (AOCI), net of tax, by component, for the six months ended June 30, 2019 follows:

	Cash Flow Hedges	Defined Benefit Pension Items	Total
Balance as of December 31, 2018	\$ 16.1	\$ 14.7	\$ 30.8
Other comprehensive loss before reclassifications	(31.2)	(0.8)	(32.0)
Amounts reclassified from accumulated other comprehensive income	(0.3)	—	(0.3)
Net current period other comprehensive loss	(31.5)	(0.8)	(32.3)
Adoption of accounting standard	5.4	—	5.4
Balance as of June 30, 2019	\$ (10.0)	\$ 13.9	\$ 3.9

A summary of reclassifications out of accumulated other comprehensive income for the three and six months ended June 30, 2019 and 2018 follows:

		Three Months	Ende	ed June 30,		Six Months E			
		2019	2018	2019			2018		
Details about Accumulated Other Comprehensive Income Components	Amo	ount Reclassified Other Comprel	Affected Line Item in the Statement where Net Income is Presented						
Gain (loss) on cash flow hedges:									
Recyclable commodity hedges	\$	—	\$	0.3	\$	—	\$	0.3	Revenue
Fuel hedges		—		1.1		—		1.9	Cost of operations
Terminated interest rate locks		0.3		(0.3)		0.4		(0.8)	Interest expense
Total before tax		0.3		1.1		0.4		1.4	
Tax expense		(0.1)		(0.3)		(0.1)		(0.4)	
Total gain reclassified into earnings	\$	0.2	\$	0.8	\$	0.3	\$	1.0	

12. FINANCIAL INSTRUMENTS

The effect of our derivative instruments in fair value and cash flow hedging relationships on the consolidated statements of income for the three and six months ended June 30, 2019 and 2018 is as follows (in millions):

Classification and Amount of Gain (Loss) Recognized in Income on Fair Value and Cash Flow Hedging Relationships

				1 IOW HEADING	nen	ationships		
	T	Three Months	Ende	ed June 30,		Six Months E	nde	d June 30,
	2019			2018	2019			2018
	Interes	st Expense	Ι	Interest Expense	Interest Expense			Interest Expense
Total amounts of expense line items presented in the consolidated statements of income in which the effects of fair value or cash flow hedges are recorded		(98.5)	\$	(96.5)	\$	(198.9)	\$	(191.3)
The effects of following and each flow had in a								
The effects of fair value and cash flow hedging:								
Gain (loss) on fair value hedging relationships:								
Interest rate swaps:								
Net swap settlements	\$	0.1	\$	0.5	\$	0.2	\$	1.4
Net periodic earnings ⁽¹⁾	\$	0.2	\$	(0.2)	\$	0.2	\$	(0.2)
Gain (loss) on cash flow hedging relationships:								
Interest rate swap locks:								
Amount of gain (loss) reclassified from AOCI into income	\$	0.3	\$	(0.3)	\$	0.4	\$	(0.8)

(1) During 2018 (prior to adoption of ASU 2017-12), all net periodic earnings for fair value hedges were recorded to other income, net. To align the effect of the hedging relationship with the activity of the hedged item, beginning January 1, 2019, all net periodic earnings on fair value hedges are presented within interest expense in our consolidated statement of income.

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, accounts payable and certain other accrued liabilities, approximates fair value because of their short-term nature.

As of June 30, 2019 and December 31, 2018, our assets and liabilities that are measured at fair value on a recurring basis include the following:

					Ju	ine 30, 2019				
						Fai	r Va	ilue		
	C	arrying 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	\$	38.6	\$	38.6	\$	38.6	\$		\$	—
Bonds - restricted cash and marketable securities and other assets		50.5		50.5		_		50.5		_
Interest rate swaps - other assets		11.6		11.6		—		11.6		—
Interest rate locks - prepaid expenses and other current assets		0.3		0.3		_		0.3		—
Total assets	\$	101.0	\$	101.0	\$	38.6	\$	62.4	\$	_
Liabilities:			_		-		_		_	
Interest rate locks - other accrued liabilities and other long-terr liabilities	n \$	32.4	\$	32.4	\$	_	\$	32.4	\$	_
Contingent consideration - other accrued liabilities and other long-term liabilities		72.1		72.1		—		—		72.1
Total liabilities	\$	104.5	\$	104.5	\$		\$	32.4	\$	72.1

					Γ	Decei	mber 31, 2018																										
							Fai	r Va	lue																								
	– Carrying Amount			Carrying Amount			Carrying Amount			Carrying Amount			Carrying Amount			Carrying Amount			Carrying Amount			Carrying Amount		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	\$	37.1	\$		37.1	\$	37.1	\$		\$ —																							
Bonds - restricted cash and marketable securities and other assets		47.8			47.8		_		47.8	_																							
Interest rate swaps - other assets		2.5			2.5		—		2.5	—																							
Interest rate locks - other assets		10.3			10.3		—		10.3	—																							
Total assets	\$	97.7	\$		97.7	\$	37.1	\$	60.6	\$ _																							
Liabilities:																																	
Contingent consideration - other long-term liabilities	\$	71.4	\$		71.4	\$	—	\$	—	\$ 71.4																							
Total liabilities	\$	71.4	\$		71.4	\$	_	\$		\$ 71.4																							

Total Debt

As of June 30, 2019 and December 31, 2018, the carrying value of our total debt was \$8.4 billion and \$8.3 billion, respectively and the fair value of our total debt was \$9.1 billion and \$8.7 billion, 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 are based on Level 2 inputs of the fair value hierarchy as of June 30, 2019 and December 31, 2018. See Note 7, *Debt*, for further information related to our debt.

Contingent Consideration

In April 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, 2019, the Sonoma contingent consideration represents the fair value of \$66.3 million payable to the County of Sonoma based on the achievement of future annual tonnage targets through the expected remaining capacity of the landfill, which we estimate to be approximately 30 years. 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 \$79 million and \$168 million. During the six months ended June 30, 2019, 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. The contingent consideration liability is classified within Level 3 of the fair value hierarchy.

In 2017, we recognized additional contingent consideration associated with the acquisition of a landfill. As of June 30, 2019, the contingent consideration of \$4.2 million represents the fair value of amounts payable to the seller based on annual volume of tons disposed at the landfill. During the six months ended June 30, 2019, 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. The contingent consideration liabilities are classified within Level 3 of the fair value hierarchy.

In June 2019, we recognized additional contingent consideration associated with the acquisition of a collection business. As of June 30, 2019, the contingent consideration of \$1.6 million represents the fair value of amounts payable to the seller based on annual volume of tons collected from certain customers of the business. The fair value of the contingent consideration was determined using probability assessments of the expected future payments over the estimated customer relationships, and applying a discount rate. The future payments are based on significant inputs that are not observable in the market. Key assumptions include annual collection volumes, which are subject to remeasurement at each reporting date. The contingent consideration liabilities are classified within Level 3 of the fair value hierarchy.

13. SEGMENT REPORTING

Our senior management evaluates, oversees and manages the financial performance of our operations through two field groups, referred to as Group 1 and Group 2. Group 1 primarily consists of geographic areas located in the western United States, and Group 2 primarily consists of geographic areas located in the southeastern and mid-western United States, and the eastern seaboard of the United States. These two groups are presented below as our reportable segments, which provide integrated waste management services consisting of non-hazardous solid waste collection, transfer, recycling, disposal and energy services.

Summarized financial information concerning our reportable segments for the three and six months ended June 30, 2019 and 2018 follows:

Three Months Ended June 30, 2019	Gro	ss Revenue	Intercompany Revenue		Net Revenue			Depreciation, Amortization, Depletion and Accretion	Operating Income (Loss)		Capital Expenditures			Total Assets
	<i>•</i>	1 500 6	.		_	4 5 6 4 4	<i>•</i>		<i>•</i>	200.0	<i>•</i>		_	44,000,0
Group 1	\$	1,528.6	\$	(264.2)	\$	1,264.4	\$	127.0	\$	309.0	\$	137.1	\$	11,223.2
Group 2		1,529.2		(226.9)		1,302.3		132.7		228.4		122.2		9,082.5
Corporate entities		43.2		(4.6)		38.6		25.0		(100.0)		30.1		1,691.1
Total	\$	3,101.0	\$	(495.7)	\$	2,605.3	\$	284.7	\$	437.4	\$	289.4	\$	21,996.8
Three Months Ended June 30, 2018														
Group 1	\$	1,446.4	\$	(253.1)	\$	1,193.3	\$	117.8	\$	275.2	\$	153.0	\$	10,851.5
Group 2		1,509.2		(224.0)		1,285.2		128.4		225.3		101.5		8,914.1
Corporate entities		43.3		(4.0)		39.3		29.5		(92.3)		24.3		1,438.1
Total	\$	2,998.9	\$	(481.1)	\$	2,517.8	\$	275.7	\$	408.2	\$	278.8	\$	21,203.7

	1	Gross Revenue	 Intercompany Revenue	Net Revenue		 Depreciation, Amortization, Depletion and Accretion		Operating Income (Loss)	Capital Expenditures			Total Assets
Six Months Ended June 30, 2019												
Group 1	\$	2,959.6	\$ (502.0)	\$	2,457.6	\$ 248.5	\$	597.1	\$	235.6	\$	11,223.2
Group 2		2,966.7	(425.4)		2,541.3	258.4		452.7		215.7		9,082.5
Corporate entities		85.2	(8.2)		77.0	49.8		(189.6)		137.4		1,691.1
Total	\$	6,011.5	\$ (935.6)	\$	5,075.9	\$ 556.7	\$	860.2	\$	588.7	\$	21,996.8
Six Months Ended June 30, 2018												
Group 1	\$	2,866.6	\$ (493.5)	\$	2,373.1	\$ 246.9	\$	553.1	\$	183.5	\$	10,851.5
Group 2		2,915.6	(422.3)		2,493.3	253.3		434.9		249.7		8,914.1
Corporate entities		86.5	(7.7)		78.8	59.0		(175.6)		108.9		1,438.1
Total	\$	5,868.7	\$ (923.5)	\$	4,945.2	\$ 559.2	\$	812.4	\$	542.1	\$	21,203.7

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 primarily include vehicle inventory acquired but not yet assigned to operating locations and facilities. Corporate functions include legal, tax, treasury, information technology, risk management, human resources, closed landfills and other administrative functions.

14. REVENUE

Our operations primarily consist of providing collection, transfer and disposal of non-hazardous solid waste, recovering and recycling of certain materials, and energy services. The following table disaggregates our revenue by service line for the three and six months ended June 30, 2019 and 2018 (in millions of dollars and as a percentage of revenue):

		Three Months	Ended June 30	,		Six Months E	Ended June 30,				
	20)19	20	18	202	19	20	18			
Collection:											
Residential	\$ 570.1	21.9 %	\$ 560.6	22.3 %	\$ 1,127.5	22.2 %	\$ 1,109.2	22.4 %			
Small-container	792.0	30.4	764.5	30.4	1,570.0	30.9	1,513.6	30.6			
Large-container	573.9	22.0	556.3	22.1	1,104.5	21.8	1,072.5	21.7			
Other	11.7	0.4	11.1	0.4	22.5	0.4	21.6	0.4			
Total collection	1,947.7	74.7	1,892.5	75.2	3,824.5	75.3	3,716.9	75.1			
Transfer	343.7		320.8		638.1		609.3				
Less: intercompany	(192.6)		(183.8)		(364.1)		(354.0)				
Transfer, net	151.1	5.8	137.0	5.4	274.0	5.4	255.3	5.2			
Landfill	608.9		580.6		1,145.4		1,130.5				
Less: intercompany	(271.4)		(265.3)		(511.2)		(508.7)				
Landfill, net	337.5	13.0	315.3	12.5	634.2	12.5	621.8	12.6			
Energy services	40.8	1.6	50.2	2.0	85.8	1.7	98.1	2.0			
Other:											
Recycling processing and commodity sales	71.9	2.7	68.0	2.7	144.8	2.9	143.8	2.9			
Other non-core	56.3	2.2	54.8	2.2	112.6	2.2	109.3	2.2			
Total other	128.2	4.9	122.8	4.9	257.4	5.1	253.1	5.1			
Total revenue	\$ 2,605.3	100.0 %	\$ 2,517.8	100.0 %	\$ 5,075.9	100.0 %	\$ 4,945.2	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 waste handling services are subcontracted to local operators. Consequently, substantially all of this revenue is offset with related subcontract costs, which are recorded in cost of operations.

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 recognized deferred revenue for the amount billed and subsequently recognize revenue at the time the service is provided. Substantially all of the deferred revenue recognized as of December 31, 2018 was recognized as revenue during the six months ended June 30, 2019 when the service was performed.

See Note 13, Segment Reporting, for additional information regarding revenue by reportable segment.

Revenue Recognition

Our service obligations of a long-term nature, e.g., solid waste 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 waste collected, transported and disposed, and the nature of the waste 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.

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, 2019 and December 31, 2018, we recognized \$84.4 million and \$89.2 million, respectively, of deferred contract costs and capitalized sales commissions. During the three and six months ended June 30, 2019, we amortized \$3.0 million and \$6.0 million of capitalized sales commissions to selling, general and administrative expenses and \$1.5 million and \$3.0 million of other deferred contract costs as a reduction of revenue, respectively. During the three and six months ended June 30, 2018, we amortized \$2.9 million and \$5.5 million of capitalized sales commissions to selling, general and administrative expenses and \$1.4 million and \$2.8 million of other deferred contract costs as a reduction.

15. 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 \$19 million relating to our outstanding legal proceedings as of June 30, 2019. 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 \$14 million higher than the amount recorded as of June 30, 2019.

Multiemployer Pension Plans

We contribute to 26 multiemployer pension plans under collective bargaining agreements covering union-represented employees. These plans generally provide retirement benefits to participants based on their service to contributing employers. We do not administer these plans.

Under current law regarding multiemployer pension plans, a plan's termination, our voluntary withdrawal (which we consider from time to time) or the mass withdrawal of all contributing employers from any under-funded multiemployer pension plan (each, a Withdrawal Event) would 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 our multiemployer pension plans. We accrue for such events when losses become probable and reasonably estimable.

Restricted Cash and Marketable Securities

Our restricted cash and marketable securities include, among other things, restricted cash and marketable securities held for capital expenditures under certain debt facilities, restricted cash pursuant to a holdback arrangement, restricted cash and marketable securities 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, and restricted cash and marketable securities related to our insurance obligations. The following table summarizes our restricted cash and marketable securities:

	June 30, 2019			December 31, 2018		
Capping, closure and post-closure obligations	\$	30.1	\$	29.5		
Insurance		89.1		78.6		
Total restricted cash and marketable securities	\$	119.2	\$	108.1		

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:

	J	fune 30, 2019	December 31, 2018	June 30, 2018	December 31, 2017		
Cash and cash equivalents	\$	72.5	\$ 70.5	\$ 61.3	\$	83.3	
Restricted cash and marketable securities		119.2	108.1	116.2		141.1	
Less: restricted marketable securities		(48.0)	(45.3)	(44.8)		(45.3)	
Cash, cash equivalents, restricted cash and restricted cash equivalents	\$	143.7	\$ 133.3	\$ 132.7	\$	179.1	

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 Item 1 of Part I of this 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, 2018.

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 "forwardlooking 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 under 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 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 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 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, 2018, particularly under Part I, Item 1A - Risk Factors. 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.

Overview

Republic is the second largest provider of non-hazardous solid waste collection, transfer, disposal, recycling, and energy services in the United States, as measured by revenue. As of June 30, 2019, we operated facilities in 41 states and Puerto Rico through 349 collection operations, 210 transfer stations, 190 active landfills, 88 recycling centers, 8 treatment, recovery and disposal facilities, 15 salt water disposal wells and 2 deep injection wells. We are engaged in 75 landfill gas to energy and renewable energy projects and had post-closure responsibility for 129 closed landfills.

Revenue for the six months ended June 30, 2019 increased by 2.6% to \$5,075.9 million compared to \$4,945.2 million for the same period in 2018. This change in revenue is due to increases in average yield of 2.9%, fuel recovery fees of 0.1%, and acquisitions, net of divestitures of 0.5%, partially offset by the impact of decreased volumes of (0.7)%, and energy services of (0.2)%.

The following table summarizes our revenue, expenses and operating income for the three and six months ended June 30, 2019 and 2018 (in millions of dollars and as a percentage of revenue):

	 		. 1. 1.1	20		Sir Months Ended June 20								
	 1.	hree Months E	naea 1	une 30,		Six Months Ended June 30,								
	2019			2018			2019			2018				
Revenue	\$ 2,605.3	100.0 %	\$	2,517.8	100.0 %	\$	5,075.9	100.0 %	\$	4,945.2	100.0 %			
Expenses:														
Cost of operations	1,617.0	62.1		1,577.2	62.6		3,123.1	61.5		3,047.0	61.6			
Depreciation, amortization and depletion of property and equipment	251.0	9.6		238.6	9.5		489.8	9.7		484.8	9.8			
Amortization of other intangible assets	5.0	0.2		15.0	0.6		9.7	0.2		30.1	0.6			
Amortization of other assets	8.2	0.3		1.9	0.1		16.3	0.3		3.7	0.1			
Accretion	20.5	0.8		20.2	0.8		40.9	0.8		40.6	0.8			
Selling, general and administrative	264.5	10.1		252.9	10.0		530.9	10.4		514.0	10.4			
Loss (gain) on disposition of assets and asset impairments, net	0.2	_			_		0.5	_		(0.7)	_			
Restructuring charges	1.5	0.1		3.8	0.2		4.5	0.1		13.3	0.3			
Operating income	\$ 437.4	16.8 %	\$	408.2	16.2 %	\$	860.2	17.0 %	\$	812.4	16.4 %			

Our pre-tax income was \$328.6 million and \$641.4 million for the three and six months ended June 30, 2019, respectively, compared to \$312.6 million and \$623.3 million for the same respective periods in 2018. Our net income attributable to Republic Services, Inc. was \$251.5 million and \$485.7 million for the three and six months ended June 30, 2019, or \$0.78 and \$1.50 per diluted share, respectively, compared to \$234.9 million and \$472.6 million, or \$0.71 and \$1.43 per diluted share, for the same periods in 2018, respectively.

During each of the three and six months ended June 30, 2019 and 2018, we recorded a number of charges, other expenses and benefits that impacted our pretax income, 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 the *Results of Operations* discussion of 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, 2019 and 2018.

							_							
		Three N	/lon	ths Ended June 3	30, 2	2019	Three Months Ended June 30, 2018							
				Net Dilute						Net	Diluted			
	Pre-tax		Pre-tax Income -			Earnings	Pre-tax			Income -		Earnings		
	Income			Republic	per Share			Income		Republic	per Share			
As reported	\$	328.6	\$	251.5	\$	0.78	\$	312.6	\$	234.9	\$	0.71		
Loss on extinguishment of debt and other related costs (2)		—		—		—		0.3		0.2		_		
Restructuring charges ⁽¹⁾		1.5		1.1		—		3.8		2.8		0.01		
Incremental contract startup costs - large municipal contract		_		_		_		2.4		1.7		0.01		
(Gain) loss on disposition of assets and asset impairments, net $^{(1)}$		0.2		0.2		_		_		—		_		
Acquisition deal costs		1.9		1.3		0.01		—		—		—		
Total adjustments		3.6		2.6		0.01		6.5		4.7		0.02		
As adjusted	\$	332.2	\$	254.1	\$	0.79	\$	319.1	\$	239.6	\$	0.73		

(1) The aggregate impact to adjusted diluted earnings per share totals to less than \$0.01 for the three months ended June 30, 2019.

(2) The aggregate impact to adjusted diluted earnings per share totals to less than \$0.01 for the three months ended June 30, 2018.

		Six M	onth	s Ended June 30), 20	019	Six Months Ended June 30, 2018							
				Net		Diluted				Net		Diluted		
		Pre-tax Income		Pre-tax Income -				Earnings	Pre-tax			Income -	Earnings	
				Republic		per Share		Income	Republic			per Share		
As reported	\$	641.4	\$	485.7	\$	1.50	\$	623.3	\$	472.6	\$	1.43		
Loss on extinguishment of debt and other related costs $\ensuremath{^{(2)}}$		_				_		0.3		0.2		_		
Restructuring charges		4.5		3.3		0.01		13.3		9.7		0.03		
Incremental contract startup costs - large municipal contract (1)		0.7		0.5		_		5.3		3.9		0.01		
(Gain) loss on disposition of assets and asset impairments, net ⁽¹⁾		0.5		0.4		_		(0.7)		(0.5)		_		
Acquisition deal costs		2.5		1.8		0.01				—		—		
Total adjustments		8.2		6.0		0.02		18.2		13.3		0.04		
As adjusted	\$	649.6	\$	491.7	\$	1.52	\$	641.5	\$	485.9	\$	1.47		

(1) The aggregate impact to adjusted diluted earnings per share totals to less than \$0.01 for the six months ended June 30, 2019.

(2) The aggregate impact to adjusted diluted earnings per share totals to less than \$0.01 for the six months ended June 30, 2018.

We believe that presenting adjusted pre-tax income, 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 and costs 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 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.

Loss on extinguishment of debt and other related costs. During the three and six months ended June 30, 2018, we incurred a \$0.3 million loss on extinguishment of certain financing arrangements.

Restructuring charges. In January 2018, we eliminated certain positions following the consolidation of select back-office functions, including but not limited to the integration of our National Accounts support functions into our existing corporate support functions. These changes include a reduction in administrative staffing and the closure of certain office locations.

During the three and six months ended June 30, 2019, we incurred restructuring charges of \$1.5 million and \$4.5 million, respectively, that primarily related to upgrades to our back-office software systems. During the three and six months ended June

30, 2018, we incurred restructuring charges of \$3.8 million and \$13.3 million, respectively, that primarily consisted of severance and other employee termination benefits and the closure of offices with lease agreements with non-cancelable terms. We paid \$6.5 million and \$12.6 million during the six months ended June 30, 2019 and 2018, respectively related to these restructuring efforts.

In 2019, we expect to incur additional restructuring charges of approximately \$5 million primarily related to upgrades to our back-office software systems. Substantially all of these restructuring charges will be recorded in our corporate segment.

Incremental contract startup costs - large municipal contract. Although our business regularly incurs startup costs under municipal contracts, we specifically identify in the tables above the startup costs with respect to an individual municipal contract (and do not adjust for other startup costs under other contracts in 2019 or 2018). We do this because of the magnitude of the costs involved with this particular municipal contract and the unusual nature for the time period in which they are incurred.

During the six months ended June 30, 2019, we incurred costs of \$0.7 million and during the three and six months ended June 30, 2018, we incurred costs of \$2.4 million and \$5.3 million, respectively, related to the implementation of a large municipal contract. These costs did not meet the capitalization criteria prescribed by the new revenue recognition standard.

(*Gain*) loss on disposition of assets and asset impairments, net. During the three and six months ended June 30, 2019, we recorded a net loss on disposition of assets and asset impairments related to business divestitures of \$0.2 million and \$0.5 million, respectively. During the six months ended June 30, 2018, we recorded a net gain on disposition of assets and asset impairments related to business divestitures of \$0.7 million.

Acquisition deal costs. Although our business regularly incurs costs related to acquisitions, we specifically identify in the tables above the costs incurred during the three and six months ended June 30, 2019. We do this because of the magnitude of the costs associated with the particular acquisition activity during this time period. During the three and six months ended June 30, 2019, we incurred acquisition related deal costs of \$1.9 million and \$2.5 million, respectively.

Recent Developments

Updated 2019 Financial Guidance

The following is a summary of anticipated adjusted diluted earnings per share for the year ending December 31, 2019, which is not a measure determined in accordance with U.S GAAP:

	(Anticipated) Year Ending December 31, 2019
Diluted earnings per share	\$ 3.20 - 3.25
Restructuring charges	0.02
Incremental contract startup costs - large municipal contract	—
(Gain) loss on disposition of assets and asset impairments, net	_
Acquisition deal costs	0.01
Adjusted diluted earnings per share	\$ 3.23 - 3.28

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 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.

Increase in Quarterly Dividend

At its meeting held in July 2019, our board of directors approved an increase in our quarterly dividend of 8% to \$0.405 per share. The quarterly dividend of \$0.405 per share will be paid on October 15, 2019 to shareholders of record on October 1, 2019.

Results of Operations

Revenue

We generate revenue primarily from our solid waste collection operations. Our remaining revenue is from other services, including transfer station, landfill disposal, recycling, and energy services. 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 processing facilities generate revenue from tipping fees charged to third parties and the sale of recycled commodities. Our revenue from energy services consists mainly of fees we charge for the treatment and disposal of liquid and solid waste derived from the production of oil and natural gas. Other 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 waste handling services are 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, 2019 and 2018 (in millions of dollars and as a percentage of revenue):

		Three Mo	nths En	ided J	une 30,			Six Months Ended June 30,							
	20)19			201	8			202	19		2018			
Collection:							_								
Residential	\$ 570.1	21.9	%	\$	560.6	22.3	%	\$	1,127.5	22.2	%	\$ 1,109.2	22.4	%	
Small-container	792.0	30.4			764.5	30.4			1,570.0	30.9		1,513.6	30.6		
Large-container	573.9	22.0			556.3	22.1			1,104.5	21.8		1,072.5	21.7		
Other	11.7	0.4			11.1	0.4			22.5	0.4		21.6	0.4		
Total collection	1,947.7	74.7			1,892.5	75.2			3,824.5	75.3		3,716.9	75.1		
Transfer	343.7				320.8				638.1			609.3			
Less: intercompany	(192.6)				(183.8)				(364.1)			(354.0)			
Transfer, net	151.1	5.8			137.0	5.4			274.0	5.4		255.3	5.2		
Landfill	608.9				580.6				1,145.4			1,130.5			
Less: intercompany	(271.4)				(265.3)				(511.2)			(508.7)			
Landfill, net	337.5	13.0			315.3	12.5			634.2	12.5		621.8	12.6		
Energy services	40.8	1.6			50.2	2.0			85.8	1.7		98.1	2.0		
Other:															
Recycling processing and commodity sales	71.9	2.7			68.0	2.7			144.8	2.9		143.8	2.9		
Other non-core	56.3	2.2			54.8	2.2			112.6	2.2		109.3	2.2		
Total other	128.2	4.9			122.8	4.9			257.4	5.1		253.1	5.1		
Total revenue	\$ 2,605.3	100.0	%	\$	2,517.8	100.0	%	\$	5,075.9	100.0	%	\$ 4,945.2	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, 2019 and 2018:

	Three Months End	ed June 30,	Six Months Ended June 30,				
	2019	2018	2019	2018			
Average yield	2.8 %	2.1 %	2.9 %	2.1 %			
Fuel recovery fees	0.1	0.6	0.1	0.6			
Total price	2.9	2.7	3.0	2.7			
Volume ⁽¹⁾	0.1	0.6	(0.7)	1.2			
Recycling processing and commodity sales	0.2	(1.4)	—	(1.3)			
Energy services	(0.4)	0.2	(0.2)	0.3			
Total internal growth	2.8	2.1	2.1	2.9			
Acquisitions / divestitures, net	0.7	1.8	0.5	1.8			
Subtotal	3.5 %	3.9 %	2.6 %	4.7 %			
Adoption of the new revenue recognition standard	— %	(4.3)%	— %	(4.2)%			
Total	3.5 %	(0.4)%	2.6 %	0.5 %			
Core price	4.6 %	3.6 %	4.7 %	3.7 %			

(1) The decrease in volume of (0.7)% during the six months ended June 30, 2019 includes a decrease of (0.3)% due to one less work day as compared to the six months ended June 30, 2018.

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 average yield and core price as a percentage of related-business revenue, defined as total revenue excluding recycled commodities and fuel recovery fees, to determine the effectiveness of our pricing strategies. Average yield as a percentage of related-business revenue was 3.0% for both the three and six months ended June 30, 2019, and 2.3% for the same respective periods in 2018. Core price as a percentage of related-business revenue was 4.9% and 5.0% for the three and six months ended June 30, 2019, respectively, and 3.9% and 4.0% for the same respective periods in 2018.

During the three and six months ended June 30, 2019, we experienced the following changes in our revenue as compared to the same periods in 2018:

- Average yield increased revenue by 2.8% and 2.9% during the three and six months ended June 30, 2019, respectively, due to price increases in all lines of business.
- The fuel recovery fee program, which mitigates our exposure to increases in fuel prices, increased revenue by 0.1% during the three and six months ended June 30, 2019 primarily due to an increase in the total revenue subject to the fuel recovery fees. This increase was partially offset by a decrease in fuel prices during the three and six months ended June 30, 2019 compared to the same periods in 2018.
- Volume increased revenue by 0.1% during the three months ended June 30, 2019 primarily due to higher special waste landfill volumes offset by lower residential and small-container collection volumes as compared to the three months ended June 30, 2018. Volume decreased revenue by (0.7)% during the six months ended June 30, 2019, primarily due to volume declines in our residential and small-container collection lines of business. The volume declines were primarily due to certain non-regrettable losses and one less workday during the six months ended June 30, 2019 as compared to the same period in 2018. In addition, special waste landfill volumes decreased during the six months ended June 30, 2019 as compared to the same period in 2018.
- Recycling processing and commodity sales increased revenue by 0.2% during the three months ended June 30, 2019 primarily due to price increases, partially offset by a decline in overall commodity prices. Recycling processing and commodity sales remained unchanged during the six months ended June 30, 2019, due to price increases, which were offset by a decline in overall commodity prices. The average price for recycled commodities, excluding glass and organics, for the three and six months ended June 30, 2019 was \$78 and \$86 per ton, respectively, compared to \$91 and \$102 per ton, for the same periods in 2018.

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 will change both annual revenue and operating income by approximately \$18 million.

- Acquisitions, net of divestitures, increased revenue by 0.7% and 0.5% during the three and six months ended June 30, 2019, due to our continued growth strategy of acquiring privately held solid waste and recycling companies that complement our existing business platform.
- Energy services decreased revenue by (0.4)% and (0.2)% during the three and six months ended June 30, 2019 primarily due to a decline in drilling activity and increased competition in the Permian Basin.

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 subcontract costs, which include costs for independent haulers that transport our waste to disposal facilities and costs for local operators who 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 include financial assurance, leachate disposal, remediation charges and other landfill maintenance costs; risk management costs, which include casualty 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, 2019 and 2018 (in millions of dollars and as a percentage of revenue):

	Т	hree Months E	nded .	June 30,		Six Months Ended June 30,								
	 2019			2018			2019			2018				
Labor and related benefits	\$ 551.7	21.2 %	\$	539.0	21.4 %	\$	1,088.9	21.5 %	\$	1,068.1	21.6 %			
Transfer and disposal costs	221.5	8.5		214.6	8.5		418.9	8.2		402.9	8.1			
Maintenance and repairs	251.0	9.6		251.3	10.0		492.8	9.7		491.5	9.9			
Transportation and subcontract costs	171.4	6.6		166.4	6.6		325.1	6.4		315.8	6.4			
Fuel	96.8	3.7		104.3	4.1		188.9	3.7		185.8	3.8			
Disposal fees and taxes	85.0	3.3		83.2	3.3		158.2	3.1		157.5	3.2			
Landfill operating costs	67.2	2.6		56.6	2.2		120.9	2.4		108.7	2.2			
Risk management	63.6	2.4		56.2	2.2		116.1	2.3		108.1	2.2			
Other	108.8	4.2		105.6	4.3		213.3	4.2		208.6	4.2			
Total cost of operations	\$ 1,617.0	62.1 %	\$	1,577.2	62.6 %	\$	3,123.1	61.5 %	\$	3,047.0	61.6 %			

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 cost of operations by component to that of other companies.

Our cost of operations increased in aggregate dollars for the three and six months ended June 30, 2019 compared to the same periods in 2018 primarily as a result of the following:

- Labor and related benefits increased in aggregate dollars due to higher hourly and salaried wages as a result of annual merit increases along with increased headcount attributable to acquisition-related growth.
- Transfer and disposal costs increased primarily due to an increase in third party disposal rates and volumes disposed at third party facilities. During the three and six months ended June 30, 2019, approximately 68% and 67%, respectively, of the total waste volume we collected was disposed at landfill sites that we own or operate (internalization) as compared to 68% during each of the same periods in 2018.
- Maintenance and repairs expense decreased primarily due to the effective execution of our fleet strategy, including our preventative maintenance programs.

• Fuel costs decreased during the three months ended June 30, 2019 due to a decline in both fuel prices and collection volumes. Fuel costs increased, in aggregate dollars, during the six months ended June 30, 2019 due to favorable compressed natural gas (CNG) tax credits of approximately \$15 million that were enacted in 2018, retroactively effective to 2017 and recognized during the same period in 2018, which did not recur in 2019. The unfavorable impact in 2019 resulting from the CNG tax credits was partially offset by a decline in fuel prices and collection volumes. The national average diesel fuel cost per gallon for the three and six months ended June 30, 2019 was \$3.12 and \$3.07, respectively, as compared to \$3.19 and \$3.10 for the same periods in 2018.

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 \$26 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 changes our fuel recovery fee by approximately \$25 million per year.

 Landfill operating costs increased due to increased leachate treatment, transportation and disposal costs, partially offset by certain favorable remediation adjustments.

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, 2019 and 2018 (in millions of dollars and as a percentage of revenue):

		Three Months En	ded	June 30,			Six Months E	nded J	une 30,	
	2019			2018		 2019	1		2018	}
Depreciation and amortization of property and equipment	\$ 161.0	6.2 %	\$	160.6	6.4 %	\$ 320.4	6.3 %	\$	322.0	6.5 %
Landfill depletion and amortization	90.0	3.4		78.0	3.1	169.4	3.4		162.8	3.3
Depreciation, amortization and depletion expense	\$ 251.0	9.6 %	\$	238.6	9.5 %	\$ 489.8	9.7 %	\$	484.8	9.8 %

Depreciation and amortization of property and equipment for the six months ended June 30, 2019 decreased due to the full depreciation of certain assets recognized in our 2008 acquisition of Allied Waste Industries, Inc.

During the three and six months ended June 30, 2019, landfill depletion and amortization expense increased primarily due to favorable one-time amortization adjustments recorded during the three and six months ended June 30, 2018, which did not recur in 2019 and an increase in our overall average depletion rate.

Amortization of Other Intangible Assets

Expenses for amortization of other intangible assets were \$5.0 million and \$9.7 million or 0.2% of revenue, for the three and six months ended June 30, 2019, respectively, compared to \$15.0 million and \$30.1 million, or 0.6% of revenue, for each of the same periods in 2018. Our other intangible assets primarily relate to customer relationships and, to a lesser extent, non-compete agreements. Amortization expense decreased primarily due to the full amortization of certain intangible assets recognized in our 2008 acquisition of Allied Waste Industries, Inc.

Amortization of Other Assets

Expenses for amortization of other assets were \$8.2 million and \$16.3 million, or 0.3% of revenue, for the three and six months ended June 30, 2019, respectively, compared to \$1.9 million and \$3.7 million, or 0.1% of revenue, for the same periods in 2018. Our other assets primarily relate to the prepayment of fees and capitalized implementation costs associated with cloud-based hosting arrangements. Effective January 1, 2019, we adopted ASU 2018-15, *Intangibles—Goodwill and Other—Internal-Use Software (Subtopic 350-40) No. 2018-15 Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract* (ASU 2018-15) on a prospective basis. During the three and six months ended June 30, 2019, we recognized \$4.5 million and \$9.4 million, respectively, of amortization related to the prepayment of fees as selling, general and administrative expenses. During the three and six months ended June 30, 2019, we recognized \$5.7 million and \$11.7 million, respectively, of amortization related to the prepayment of similar fees in amortization of other assets.

Accretion Expense

Accretion expense was \$20.5 million and \$40.9 million, or 0.8% of revenue, for the three and six months ended June 30, 2019, respectively, compared to \$20.2 million and \$40.6 million, or 0.8% of revenue, for each of the same periods in 2018. Accretion expense has remained relatively unchanged as our asset retirement obligations have remained relatively consistent period over period.

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, 2019 and 2018 (in millions of dollars and as a percentage of revenue):

		Three Months E	nded .	June 30,			Six Months End	led Ju	ıne 30,	
	 201	9		201	8	 2019			201	8
Salaries and related benefits	\$ 182.5	7.0 %	\$	170.4	6.8 %	\$ 366.7	7.2 %	\$	346.9	7.0 %
Provision for doubtful accounts	8.4	0.3		6.8	0.3	15.9	0.3		13.6	0.3
Other	73.6	2.8		75.7	2.9	148.3	2.9		153.5	3.1
Total selling, general and administrative expenses	\$ 264.5	10.1 %	\$	252.9	10.0 %	\$ 530.9	10.4 %	\$	514.0	10.4 %

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.

The most significant items affecting our selling, general and administrative expenses during the three and six months ended June 30, 2019 and 2018 are summarized below:

- Salaries and related benefits increased primarily due to higher incentive pay and wages, benefits, and other payroll related items resulting from annual merit increases.
- Other selling, general and administrative expenses decreased for the three and six months ended June 30, 2019, primarily due to our adoption of ASU 2018-15. During the three and six months ended June 30, 2018, we recognized \$4.5 million and \$9.4 million of amortization related to the prepayment of certain fees as selling, general and administrative expenses. The amortization for prepayments of similar fees was recognized as amortization of other assets during the three and six months ended June 30, 2019.

(Gain) Loss on Disposition of Assets and Asset 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 certain assets and reallocate resources to other markets. Asset or

business divestitures could result in gains, losses or asset impairment charges that may be material to our results of operations in a given period.

During the three and six months ended June 30, 2019, we recorded a net loss on disposition of assets and asset impairments related to business divestitures of \$0.2 million and \$0.5 million, respectively. During the six months ended June 30, 2018, we recorded a net gain on disposition of assets and asset impairments related to business divestitures of \$0.7 million.

Restructuring Charges

In January 2018, we eliminated certain positions following the consolidation of select back-office functions, including but not limited to the integration of our National Accounts support functions into our existing corporate support functions. These changes include a reduction in administrative staffing and closing of certain office locations.

During the three and six months ended June 30, 2019, we incurred restructuring charges of \$1.5 million and \$4.5 million, respectively, that primarily related to upgrades to our back-office software systems. During the three and six months ended June 30, 2018, we incurred restructuring charges of \$3.8 million and \$13.3 million, respectively, that primarily consisted of severance and other employee termination benefits and the closure of offices with lease agreements with non-cancelable terms. We paid \$6.5 million and \$12.6 million during the six months ended June 30, 2019 and 2018, respectively, related to these restructuring efforts.

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, 2019 and 2018 (in millions of dollars):

	Thre	e Months	Ende	ed June 30,	S	ix Months E	Ende	d June 30,
	2	019		2018		2019		2018
Interest expense on debt and finance lease obligations	\$	87.6	\$	87.5	\$	177.6	\$	172.2
Non-cash interest		12.3		10.4		23.3		21.3
Less: capitalized interest		(1.4)		(1.4)		(2.0)		(2.2)
Total interest expense	\$	98.5	\$	96.5	\$	198.9	\$	191.3

Total interest expense for the three and six months ended June 30, 2019 increased primarily due to the increase in debt outstanding during the period and higher interest rates on floating rate debt. Cash paid for interest, excluding net swap settlements for our fixed to floating interest rate swaps, was \$171.1 million for the six months ended June 30, 2019 and \$171.7 million for the six months ended June 30, 2018.

Effective January 1, 2019, we adopted ASU 2016-02, *Leases (Topic 842)* (ASC 842 or the new leasing standard) using the optional transition method prescribed by ASU 2018-11, *Leases (Topic 842): Targeted Improvements*. Under the new leasing standard, we will present variable lease costs associated with our finance leases as a component of non-cash interest expense. Variable lease costs are recognized in our consolidated statement of income in the period incurred. As such, we expect non-cash interest expense to fluctuate each period as the variable elements of these arrangements become known and the cost is incurred.

Income Taxes

Our effective tax rate, exclusive of non-controlling interests, for the three and six months ended June 30, 2019 was 23.6% and 24.3%, respectively. Our effective tax rate, exclusive of non-controlling interests, for the three and six months ended June 30, 2018 was 24.7% and 24.1%, respectively.

Cash paid for income taxes was a net refund of \$10.5 million and a net payment of \$30.0 million for the six months ended June 30, 2019 and 2018, respectively. Cash taxes have been favorably impacted from the receipt of funds from amended returns filed during 2018.

For additional discussion and detail regarding our income taxes, see Note 9, *Income Taxes*, to our unaudited consolidated financial statements included in Item 1 of Part I of this Quarterly Report on Form 10-Q.

Reportable Segments

Our senior management evaluates, oversees and manages the financial performance of our operations through two field groups, referred to as Group 1 and Group 2. Group 1 primarily consists of geographic areas located in the western United States, and Group 2 primarily consists of geographic areas located in the southeastern and mid-western United States, and the eastern seaboard of the United States.

The two field groups, Group 1 and Group 2, are presented below as our reportable segments, which provide integrated waste management services consisting of non-hazardous solid waste collection, transfer, recycling, disposal and energy services. Summarized financial information concerning our reportable segments for the three and six months ended June 30, 2019 and 2018 is shown in the following tables (in millions of dollars and as a percentage of revenue in the case of operating margin):

		Revenue	I Ac A	Depreciation, Amortization, Depletion and ccretion Before djustments for set Retirement Obligations	Adjustments to mortization Expense or Asset Retirement Obligations	 Depreciation, Amortization, Depletion and Accretion	Gain (Loss) on Disposition of Assets and npairments, Net	Operating come (Loss)	Operating Margin	_
Three Months Ended June 30, 202	19									
Group 1	\$	1,264.4	\$	127.2	\$ (0.2)	\$ 127.0	\$ —	\$ 309.0	24.4	%
Group 2		1,302.3		132.1	0.6	132.7	—	228.4	17.5	%
Corporate entities		38.6		25.0	—	25.0	(0.2)	(100.0)		
Total	\$	2,605.3	\$	284.3	\$ 0.4	\$ 284.7	\$ (0.2)	\$ 437.4	16.8	%
Three Months Ended June 30, 202	18									
Group 1	\$	1,193.3	\$	123.4	\$ (5.6)	\$ 117.8	\$ —	\$ 275.2	23.1	%
Group 2		1,285.2		130.3	(1.9)	128.4	_	225.3	17.5	%
Corporate entities		39.3		29.5	—	29.5	_	(92.3)		
Total	\$	2,517.8	\$	283.2	\$ (7.5)	\$ 275.7	\$ _	\$ 408.2	16.2	%

F	Net Revenue		Depreciation, Amortization, Depletion and Accretion Before Adjustments for Asset Retirement Obligations		Adjustments to Amortization Expense for Asset Retirement Obligations		Depreciation, Amortization, Depletion and Accretion	Ι	Disposition of Assets and		Operating Income (Loss)	Operating Margin	_
2019													
\$	2,457.6	\$	248.8	\$	(0.3)	\$	248.5	\$	—	\$	597.1	24.3	%
	2,541.3		257.8		0.6		258.4		_		452.7	17.8	%
	77.0		49.8		—		49.8		(0.5)		(189.6)	—	
\$	5,075.9	\$	556.4	\$	0.3	\$	556.7	\$	(0.5)	\$	860.2	17.0	%
2018													
\$	2,373.1	\$	252.1	\$	(5.2)	\$	246.9	\$	_	\$	553.1	23.3	%
	2,493.3		255.7		(2.4)		253.3		_		434.9	17.4	%
	78.8		59.0		_		59.0		0.7		(175.6)	_	
\$	4,945.2	\$	566.8	\$	(7.6)	\$	559.2	\$	0.7	\$	812.4	16.4	%
	2019 \$ \$ 2018	Revenue 2019 \$ 2,457.6 2,541.3 77.0 \$ 5,075.9 2018 \$ 2,373.1 2,493.3 78.8	Revenue 2019 \$ 2,457.6 \$ 2,541.3 77.0 \$ \$ 5,075.9 \$ \$ 2018 \$ \$ 2,373.1 \$ 2,493.3 78.8 \$	Net Revenue Amortization, Depletion and Accretion Before Adjustments for Asset Retirement Obligations 2019	Net Revenue Amortization, Depletion and Accretion Before Adjustments for Asset Retirement Obligations 2019 * \$ 2,457.6 \$ 248.8 \$ 2,541.3 257.8 * 77.0 49.8 \$ \$ 5,075.9 \$ 556.4 \$ 2018 * \$ \$ 2,373.1 \$ 252.1 \$ 2,493.3 255.7 \$	Amortization, Depletion and Accretion Before Adjustments for Asset Retirement Obligations Adjustments to Amortization Expense for Asset 2019 5019 5019 5010 \$ 2,541.3 257.8 0.6 77.0 49.8 0.6 77.0 49.8 0.3 5,075.9 \$ 556.4 0.3 2018 5 0.3 2018 5 5.075.9 \$ 60.2 78.8 59.0 - -	Amortization, Depletion and Accretion Before Adjustments for Asset Retirement Obligations Adjustments to Amortization Expense for Asset Retirement Obligations 2019 5019 5019 5019 \$ 2,541.3 257.8 0.6 5 77.0 49.8 0.6 5 77.0 49.8 0.6 5 2018 5 0.3 5 2018 5 5 5 5 2,541.3 255.7 0.3 5 2018 5 5 5 5 5 78.8 59.00 - 5 5 5	Amortization, Depletion and Accretion Before Adjustments for Asset Retirement Obligations Adjustments to Amortization Expense for Asset Retirement Obligations Depreciation, Amortization, Depletion and Accretion 2019 5 248.8 \$ (0.3) \$ 248.5 2,541.3 257.8 0.6 258.4 77.0 49.8 - 49.8 \$ 5,075.9 \$ 556.4 0.3 \$ 556.7 2018 - 49.8 - \$ 2,373.1 \$ 252.1 \$ (5.2) \$ 246.9 2,493.3 255.7 (2.4) 253.3 78.8 59.00 - 59.0	Amortization, Depletion and Accretion Before Adjustments for Asset Retirement Obligations Adjustments to Amortization Expense for Asset Retirement Obligations Depreciation, Amortization, Depletion and Accretion G Im Im 2019 \$ 248.8 \$ (0.3) \$ 248.5 \$ 2,541.3 257.8 0.6 258.4 \$ \$ 77.0 49.8 — 49.8 \$ \$ \$ \$ \$ 5,075.9 \$ 556.4 \$ 0.3 \$ 556.7 \$ 2018 \$ 2,373.1 \$ 252.1 \$ (5.2) \$ 246.9 \$ 2,493.3 255.7 (2.4) 253.3 \$ <	Amortization, Depletion and Accretion Before Adjustments for Asset Retirement Obligations Adjustments to Amortization Expense for Asset Retirement Obligations Depreciation, Amortization, Depletion and Accretion Gain (Loss) on Disposition of Assets and Impairments, Net 2019 5 248.8 \$ (0.3) 248.5 \$ 2,541.3 257.8 0.6 258.4 77.0 49.8 (0.5) \$ (0.5) \$ (0.5) \$ 5,075.9 \$ 556.4 \$ 0.3 \$ 556.7 \$ (0.5) \$ 2,373.1 \$ 252.1 \$ (5.2) \$ 246.9 \$ 2,493.3 255.7 (2.4) 253.3 78.8 59.0 59.0 0.7	Amortization, Depletion and Accretion Before Adjustments for Asset Retirement Obligations Adjustments to Amortization Expense for Asset Retirement Obligations Depreciation, Amortization, Depletion and Accretion Gain (Loss) on Disposition of Assets and Impairments, Net 2019 \$ 248.8 \$ (0.3) \$ 248.5 \$ \$ 2,541.3 257.8 0.6 258.4 \$ 77.0 49.8 49.8 (0.5) \$ \$ 5,075.9 \$ 556.4 \$ 0.3 \$ 556.7 \$ (0.5) \$ 2018 \$ \$ 0.3 \$ 526.7 \$ \$ \$ 2,493.3 255.7 (2.4) \$ 253.3 \$ 78.8 59.0 \$ 59.0 0.7 \$	Anortization, Depletion and Accretion Before Adjustments for Asset Retirement Obligations Adjustments to Amortization, Expense for Asset Depreciation, Amortization, Depletion and Accretion Gain (Loss) on Disposition of Assets and Impairments, Net Operating Income (Loss) 2019 2457.6 \$ 248.8 \$ (0.3) \$ 248.5 \$ \$ 597.1 2,541.3 257.8 0.6 258.4 452.7 77.0 49.8 49.8 (0.5) (189.6) \$ 5,075.9 \$ 556.4 0.3 \$ 556.7 \$ (0.5) \$ 860.2 2018 - 434.9 434.9 2,493.3 255.7 (2.4) 253.3 \$ 553.1 2,493.3 550.7 0.7 1434.9 434.9	Amortization, Depletion and Accretion Before Adjustments for Asset Retirement Obligations Adjustments to Amortization, Expense for Asset Net Retirement Obligations Depreciation, Amortization, Depletion and Accretion Gain (Loss) on Disposition of Assets and Impairments, Net Operating Income (Loss) Operating Margin 2019 2 2 5 9 - \$ 597.1 24.3 2,541.3 257.8 0.6 258.4 - \$ 597.1 24.3 77.0 49.8 - 49.8 (0.5) (189.6) - \$ 5,075.9 \$ 556.4 0.3 \$ 556.7 \$ 0.65 248.9 \$ 0.7.0 17.0 \$ 5,075.9 \$ 556.4 \$ 0.3 \$ 556.7 \$ 0.65 189.60 - \$ 5,075.9 \$ 556.4 \$ 0.3 \$ 556.7 \$ 0.05 \$ 860.2 17.0 2,493.3 255.7 \$ 5.2 246.9 \$ - \$

Corporate entities include legal, tax, treasury, information technology, risk management, human resources, closed landfills and other administrative functions. National Accounts revenue included in corporate entities represents the portion of revenue generated from nationwide and regional contracts in markets outside our operating areas where the associated waste handling services are subcontracted to local operators. Consequently, substantially all of this revenue is offset with related subcontract costs, which are recorded in cost of operations.

Significant changes in the revenue and operating margins of our reportable segments comparing the three and six months ended June 30, 2019 with the same period in 2018 are discussed below:

Group 1

Revenue for the three months ended June 30, 2019 increased 6.0% due to an increase in average yield in all lines of business and an increase in volume in our landfill and transfer stations lines of business. Revenue for the six months ended June 30, 2019 increased 3.6% due primarily to increases in average yield in all lines of business, which was partially offset by volume declines in our landfill and transfer stations lines of business.

Operating income in Group 1 increased from \$275.2 million for the three months ended June 30, 2018, or 23.1% operating income margin, to \$309.0 million for the three months ended June 30, 2019, or a 24.4% operating income margin, primarily due to an increase in revenue. Operating income in Group 1 increased from \$553.1 million for the six months ended June 30, 2018, or 23.3% operating income margin, to \$597.1 million for the six months ended June 30, 2019, or a 24.3% operating income margin, primarily due to an increase in revenue. In addition, the following cost categories impacted operating income margin:

- Cost of operations favorably impacted operating income margin for the three and six months ended June 30, 2019, primarily due to a decrease in fuel
 costs and maintenance and repairs expense as a percentage of revenue.
- Landfill depletion and amortization unfavorably impacted operating income margin as a result of favorable one-time amortization adjustments
 recorded during the three months ended June 30, 2018, which did not recur in 2019. Depreciation favorably impacted operating income margin
 during the six months ended June 30, 2019 due to the full depreciation of certain assets recognized in our 2008 acquisition of Allied Waste
 Industries, Inc., partially offset by favorable one-time amortization adjustments recorded during the same period in 2018.

Group 2

Revenue for the three and six months ended June 30, 2019 increased 1.3% and 1.9%, respectively, due primarily to increases in average yield in all lines of business.

Operating income in Group 2 increased from \$225.3 million for the three months ended June 30, 2018, or a 17.5% operating income margin, to \$228.4 million for the three months ended June 30, 2019, or a 17.5% operating income margin. Operating income in Group 2 increased from \$434.9 million for the six months ended June 30, 2018, or a 17.4% operating income margin, to \$452.7 million for the six months ended June 30, 2019, or a 17.8% operating income margin, primarily due to an increase in revenue. In addition, the following cost categories impacted operating income margin:

- Cost of operations favorably impacted operating income margin for the three and six months ended June 30, 2019, primarily due to a decrease in fuel costs and maintenance and repairs expense as a percentage of revenue.
- Landfill depletion and amortization unfavorably impacted operating income margin as a result of favorable one-time amortization adjustments recorded during the three months ended June 30, 2018, which did not recur in 2019.

Corporate Entities

Operating loss in our Corporate Entities increased from \$92.3 million for the three months ended June 30, 2018 to \$100.0 million for the three months ended June 30, 2019. Operating loss in our Corporate Entities increased from \$175.6 million for the six months ended June 30, 2018 to \$189.6 million for the six months ended June 30, 2019. The operating loss for the three and six months ended June 30, 2019 increased due to favorable CNG tax credits of approximately \$15 million that were enacted in 2018, retroactively effective in 2017 and recognized during the six months ended June 30, 2018, which did not recur in 2019.

For discussion and detail regarding our reportable segments, refer to Note 13, *Segment Reporting*, to our unaudited consolidated financial statements included in Item 1 of Part I of this Quarterly Report on Form 10-Q.

Landfill and Environmental Matters

Available Airspace

The following table reflects landfill airspace activity for active landfills we owned or operated during the six months ended June 30, 2019:

Balance as of December 31, 2018	New Expansions Undertaken	Landfills Acquired, Net of Divestitures	Permits Granted, Net of Closures	Airspace Consumed	Changes in Engineering Estimates	Balance as of June 30, 2019
4,736.8	—	—	3.5	(40.1)	—	4,700.2
341.2	13.8	—	—	—	—	355.0
5,078.0	13.8		3.5	(40.1)		5,055.2
190						190
12	1					13
	December 31, 2018 4,736.8 341.2 5,078.0 190	December 31, 2018 New Expansions Undertaken 4,736.8 — 341.2 13.8 5,078.0 13.8 190 —	December 31, 2018 New Expansions Undertaken Acquired, Net of Divestitures 4,736.8 — — 341.2 13.8 — 5,078.0 13.8 — 190 — —	Balance as of December 31, 2018New Expansions UndertakenLandfills Acquired, Net of DivestituresGranted, Net of Closures4,736.8——3.5341.213.8——5,078.013.8—3.5190———	Balance as of December 31, 2018New Expansions UndertakenLandfills Acquired, Net of DivestituresGranted, Net of ClosuresAirspace Consumed4,736.8——3.5(40.1)341.213.8———5,078.013.8—3.5(40.1)190————	Balance as of December 31, 2018New Expansions UndertakenLandfills Acquired, Net of DivestituresGranted, Net of ClosuresAirspace ConsumedChanges in Engineering Estimates4,736.8——3.5(40.1)—341.213.8————5,078.013.8—3.5(40.1)—190—————

As of June 30, 2019, we owned or operated 190 active solid waste landfills with total available disposal capacity estimated to be 5,055.2 million in-place cubic yards. 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. As of June 30, 2019, total available disposal capacity is estimated to be 4,700.2 million in-place cubic yards of permitted airspace plus 355.0 million in-place cubic yards of probable expansion airspace. 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. The average estimated remaining life of all of our landfills is 63 years.

As of June 30, 2019, 13 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 landfills have an estimated remaining average site life of 55 years, including probable expansion airspace. We have other expansion opportunities that are not included in our total available airspace because they do not meet all of our criteria to be deemed probable expansion airspace.

Final Capping, Closure and Post-Closure Costs

As of June 30, 2019, accrued final capping, closure and post-closure costs were \$1,330.4 million, of which \$76.8 million were current, as reflected in our unaudited consolidated balance sheet in accrued landfill and environmental costs included in Item 1 of Part I of this Quarterly Report on Form 10-Q.

Remediation and Other Charges for Landfill Matters

Bridgeton Landfill. During the six months ended June 30, 2019, we paid \$6.9 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, 2019, the remediation liability recorded for this site was \$154.2 million, of which approximately \$8 million is expected to be paid during the remainder of 2019. We believe the remaining reasonably possible high-end of our range would be approximately \$171 million higher than the amount recorded as of June 30, 2019.

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 U.S. 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 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.

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.

Investment in Landfills

The following table reflects changes in our investment in landfills for the six months ended June 30, 2019 (in millions of dollars):

	alance as of mber 31, 2018	(A	Capital Additions Amortization)	R	etirements	Acquisitions, Net of Divestitures	I	Non-cash Additions for Asset Retirement Dbligations	Impairments, Transfers and Other Adjustments	Adjustments for Asset Retirement Obligations	Ba	lance as of June 30, 2019
Non-depletable landfill land	\$ 167.5	\$	_	\$	(0.3)	\$ _	\$	_	\$ (1.2)	\$ 3 —	\$	166.0
Landfill development costs	7,106.0		1.0		(0.1)	8.1		21.5	69.5	(0.6)		7,205.4
Construction-in-progress - landfill	287.9		171.2		_	_			(68.8)	_		390.3
Accumulated depletion and amortization	(3,635.9)		(169.1)		_			_	_	(0.3)		(3,805.3)
Net investment in landfill land and development costs	\$ 3,925.5	\$	3.1	\$	(0.4)	\$ 8.1	\$	21.5	\$ (0.5)	\$ 6 (0.9)	\$	3,956.4

Selected Balance Sheet Accounts

The following table reflects the activity in our allowance for doubtful accounts and other, final capping, closure, post-closure costs, remediation liabilities, and accrued insurance during the six months ended June 30, 2019 (in millions of dollars):

	D	wance for oubtful ts and Other]	Final Capping, Closure and Post-Closure	Remediation	Iı	nsurance Reserves
Balance as of December 31, 2018	\$	34.3	\$	1,292.0	\$ 540.2	\$	423.7
Non-cash additions for asset retirement obligations		_		21.6	—		_
Acquisitions, net of divestitures and other adjustments		_		0.2	—		—
Asset retirement obligation adjustments		—		(0.5)	—		—
Accretion expense		_		40.9	9.6		0.3
Premium written for third-party risk assumed		—		—	—		17.8
Reclassified to ceded insurance reserves		—		—	—		(14.7)
Net adjustments charged to expense		15.9		—	(10.3)		226.1
Payments or usage		(17.1)		(23.8)	(17.8)		(226.0)
Balance as of June 30, 2019		33.1		1,330.4	521.7		427.2
Less: current portion		(33.1)		(76.8)	(65.5)		(162.7)
Long-term portion	\$		\$	1,253.6	\$ 456.2	\$	264.5

As of June 30, 2019, accounts receivable were \$1,147.0 million, net of allowance for doubtful accounts and other of \$33.1 million. As of December 31, 2018, accounts receivable were \$1,102.7 million, net of allowance for doubtful accounts and other of \$34.3 million.



Property and Equipment

The following tables reflect the activity in our property and equipment accounts for the six months ended June 30, 2019 (in millions of dollars):

					Gross Property	7 and	d Equipment						
	lance as of cember 31, 2018	Capital Additions	Retirements		Acquisitions, Net of Divestitures		Non-cash Additions for Asset Retirement Obligations		Adjustments for Asset Retirement Obligations		Impairments, Transfers and Other Adjustments	Ва	alance as of June 30, 2019
Land	\$ 443.6	\$ —	\$ (0.3)	\$	7.9	\$	_	\$	_	\$	_	\$	451.2
Non-depletable landfill land	167.5	_	(0.3)		_		_		_		(1.2)		166.0
Landfill development costs	7,106.0	1.0	(0.1)		8.1		21.5		(0.6)		69.5		7,205.4
Vehicles and equipment	7,377.3	336.7	(126.6)		26.8		_		_		(28.8)		7,585.4
Buildings and improvements	1,279.8	1.0	(2.9)		5.3		0.1		_		15.9		1,299.2
Construction-in- progress - landfill	287.9	171.2	_		_		_		_		(68.8)		390.3
Construction-in- progress - other	89.9	22.1	_		_		_		_		(39.9)		72.1
Total	\$ 16,752.0	\$ 532.0	\$ (130.2)	\$	48.1	\$	21.6	\$	(0.6)	\$	(53.3)	\$	17,169.6
	 	 		-				-		-		-	

				Accumulated De	epre	ciation, Amortizat	ion	and Depletion			
	alance as of ecember 31, 2018	Additions Charged to Expense		Retirements		Acquisitions, Net of Divestitures		Adjustments for Asset Retirement Obligations	Impairments, Transfers and Other Adjustments	E	Balance as of June 30, 2019
Landfill development costs	\$ (3,635.9)	\$ (169.1)	9	\$ —	\$	—	\$	(0.3)	\$ —	\$	(3,805.3)
Vehicles and equipment	(4,571.1)	(291.9)		123.4		0.3			23.4		(4,715.9)
Buildings and improvements	(524.9)	(31.0)		1.6		—		—	(0.5)		(554.8)
Total	\$ (8,731.9)	\$ (492.0)	\$	\$ 125.0	\$	0.3	\$	(0.3)	\$ 22.9	\$	(9,076.0)

Liquidity and Capital Resources

The following table summarizes our cash flow from operating activities, investing activities and financing activities for the six months ended June 30, 2019 and 2018 (in millions of dollars):

	Six Months E	nded J	une 30,
	2019		2018
Cash provided by operating activities	\$ 1,135.6	\$	1,191.0
Cash used in investing activities	\$ (762.6)	\$	(606.0)
Cash used in financing activities	\$ (362.6)	\$	(631.4)

Cash Flows Provided by Operating Activities

The most significant items affecting the comparison of our operating cash flows for the six months ended June 30, 2019 and 2018 are summarized below:

Changes in assets and liabilities, net of effects from business acquisitions and divestitures, decreased our cash flow from operations by \$22.8 million during the six months ended June 30, 2019, compared to an increase of \$2.5 million during the same period in 2018, primarily as a result of the following:

• Our accounts receivable, exclusive of the change in allowance for doubtful accounts and customer credits, increased \$53.0 million during the six months ended June 30, 2019 due to the timing of billings net of collections, compared to a \$17.7 million increase in the same period in 2018. As of June 30, 2019, our days sales outstanding were 40.1, or 28.5 days net of deferred revenue, compared to 40.2, or 27.9 days net of deferred revenue, as of June 30, 2018.

- Our prepaid expenses and other assets decreased \$101.3 million during the six months ended June 30, 2019, compared to a \$48.0 million decrease in the same period in 2018, primarily due to timing of our estimated tax payments.
- Our accounts payable increased \$12.8 million during the six months ended June 30, 2019, compared to a \$30.7 million increase in the same period in 2018, due to the timing of payments.
- Cash paid for capping, closure and post-closure obligations was \$23.8 million during the six months ended June 30, 2019, compared to \$22.1 million in the same period in 2018. The increase in cash paid for capping, closure, and post-closure obligations is primarily due to the timing of capping and post-closure payments at certain of our landfill sites.
- Cash paid for remediation obligations was \$3.4 million lower during the six months ended June 30, 2019 compared to the same period in 2018 primarily due to the timing of obligations.
- Other liabilities decreased during the six months ended June 30, 2019 primarily due to payments associated with our management incentive compensation plan.

Cash paid for interest, excluding net settlements for our interest rate swaps and locks, was \$171.1 million and \$171.7 million for the six months ended June 30, 2019 and 2018, respectively.

We use cash flows from operations to fund capital expenditures, acquisitions, dividend payments, share repurchases and debt repayments.

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, 2019 and 2018 are summarized below:

- Capital expenditures during the six months ended June 30, 2019 were \$588.7 million, compared with \$542.1 million for the same period in 2018.
- During the six months ended June 30, 2019 and 2018, we paid \$178.9 million and \$69.3 million, respectively, for acquisitions and investments.

We intend to finance 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 business acquisitions.

Cash Flows Used in Financing Activities

The most significant items affecting the comparison of our cash flows used in financing activities for the six months ended June 30, 2019 and 2018 are summarized below:

- Net proceeds from notes payable and long-term debt and senior notes were \$90.0 million during the six months ended June 30, 2019, compared to
 net proceeds of \$66.8 million in the same period in 2018.
- During the six months ended June 30, 2019, we repurchased 2.6 million shares of our stock for \$202.5 million compared to repurchases of 7.1 million shares for \$474.0 million during the same period in 2018.
- Dividends paid were \$241.7 million and \$227.7 million during the six months ended June 30, 2019 and 2018, respectively.

Financial Condition

Cash and Cash Equivalents

As of June 30, 2019, we had \$72.5 million of cash and cash equivalents and \$119.2 million of restricted cash deposits and restricted marketable securities, including \$30.1 million of restricted cash and marketable securities pledged to regulatory agencies and governmental entities as financial guarantees of our performance related to our final capping, closure and post-closure obligations at our landfills, and \$89.1 million of restricted cash and marketable securities related to our insurance obligations.

Debt

For discussion and detail regarding our debt, refer to Note 7, *Debt*, to our unaudited consolidated financial statements included in Item 1 of Part I of this Quarterly Report on Form 10-Q.

Credit Facilities

In 2018, we entered into a \$2.25 billion unsecured revolving credit facility (the Credit Facility), which replaced our \$1.0 billion and \$1.25 billion unsecured credit facilities that would have matured in May 2021 and June 2019, respectively. The Credit Facility matures in June 2023. We may request two one-year extensions of the maturity date but none of the lenders are committed to participate in such extension. 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. At our option, borrowings under the Credit Facility bear interest at a Base Rate, or a Eurodollar Rate, plus an applicable margin based on our Debt Ratings (all as defined in the Credit Facility agreement).

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 our 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). As of June 30, 2019, our EBITDA to interest ratio was 7.43 compared to the 3.00 minimum required by the covenants, and our total debt to EBITDA ratio was 2.96 compared to the 3.50 maximum allowed by the covenants. As of June 30, 2019, we were in compliance with the covenants under our Credit Facility, and we expect to be in compliance throughout the remainder of 2019.

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.

Availability under our Credit Facility totaled \$1,701.4 million and \$1,694.1 million as of June 30, 2019 and December 31, 2018, respectively. The Credit Facility can be used for working capital, capital expenditures, acquisitions, letters of credit and other general corporate purposes. As of June 30, 2019, we had \$170.0 million of borrowings under our Credit Facility, and \$159.0 million of borrowings as of December 31, 2018. We had \$361.3 million and \$379.6 million of letters of credit outstanding under our Credit Facility as of June 30, 2019 and December 31, 2018, respectively.

We also have an Uncommitted Credit Facility, which bears interest at LIBOR, plus an applicable margin and is subject to facility fees defined in the agreement, regardless of usage. We can use borrowings under the Uncommitted Credit Facility for working capital 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. We had \$89.0 million of borrowings and \$33.4 million of borrowings under our Uncommitted Credit Facility as of June 30, 2019 and December 31, 2018, respectively.

Senior Notes and Debentures

In 2018, we issued \$800.0 million of 3.950% senior notes due 2028. Our senior notes and debentures are general unsecured obligations. Interest is payable semi-annually.

Tax-Exempt Financings

During the second quarter of 2019, we refinanced \$35.0 million of tax-exempt financings and issued \$30.0 million of new tax-exempt financings. As of June 30, 2019, we had \$1,066.3 million of certain variable rate tax-exempt financings outstanding with maturities ranging from 2020 to 2049. As of December 31, 2018, we had \$1,036.8 million of certain variable rate tax-exempt financings outstanding with maturities ranging from 2019 to 2044. Approximately 100% of our tax-exempt financings are remarketed quarterly 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. To date, the remarketing agents have been able to remarket all of our variable rate unsecured tax-exempt bonds.

Finance Leases

We had finance lease liabilities of \$107.7 million and \$109.5 million as of June 30, 2019 and December 31, 2018, respectively, with maturities ranging from 2019 to 2046.

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, 2019, our credit ratings were BBB+, Baa2 and BBB 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.

Intended Uses of Cash

We intend to use excess cash on hand and cash from operating activities to fund capital expenditures, acquisitions, dividend payments, share repurchases and debt repayments. Debt repayments may include purchases of our outstanding indebtedness in the secondary market or otherwise. We believe our excess cash, cash from operating activities and our availability to draw from our Credit Facility provide us with sufficient financial resources to meet our anticipated capital requirements and maturing obligations as they come due.

We may choose to voluntarily retire certain portions of our outstanding debt before their maturity dates using cash from operations or additional borrowings. We also may explore opportunities in 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.

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 9, *Income Taxes*, and Note 15, *Commitments and Contingencies*, to our unaudited consolidated financial statements included in Item 1 of Part I 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, 2018. 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 Item 1 of Part I 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, 2019, 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 \$26 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 \$25 million per year.

Our operations also require the use of certain petrochemical-based products (such as liners at our landfills) whose costs 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 indirect fuel recovery fees from our vendors.

Our fuel costs were \$188.9 million during the six months ended June 30, 2019, or 3.7% of revenue, compared to \$185.8 million during the comparable period in 2018, or 3.8% of revenue.

Commodities Price Risk

We market recovered materials such as old corrugated containers and old newsprint from our recycling processing centers. Changes in market supply and demand for recycled commodities causes volatility in commodity prices. We have previously 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, 2019, we had no recycling commodity hedges in place.

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 \$18 million.

Revenue from recycling processing and commodity sales during the six months ended June 30, 2019 and 2018 was \$144.8 million and \$143.8 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, 2019, we had \$1,331.4 million of floating rate debt and \$300.0 million of floating interest rate swap contracts. If interest rates increased or decreased by 100 basis points on our variable 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 Item 1 of Part I of this 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.

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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 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 self-insured employee health care costs, are discussed in Note 5, *Other Liabilities*, to our unaudited consolidated financial statements in Item 1 of Part I of this 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 Item 1 of Part I of this Form 10-Q.

We accrue for legal proceedings when losses become probable and reasonably estimable. We have recorded an aggregate accrual of approximately \$19 million relating to our outstanding legal proceedings as of June 30, 2019. 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 \$14 million higher than the amount recorded as of June 30, 2019.

Legal Proceedings over Certain Environmental Matters Involving Governmental Authorities with Possible Sanctions of \$100,000 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 \$100,000. We are disclosing the following matters in accordance with that requirement:

Pine Avenue Landfill Matter

On December 20, 2016, the EPA issued a Finding of Violation (FOV) to Allied Waste Niagara Falls Landfill, LLC (Allied-Niagara). The FOV alleges violations of the Clean Air Act and associated regulations relating to operation of Allied-Niagara's Pine Avenue Landfill in Niagara County, New York. On October 16, 2017, Allied-Niagara received a civil penalty demand from the EPA. The demand proposes a penalty of \$0.6 million or \$2.5 million, depending on the results of requested sampling analysis at the site. Allied-Niagara is in discussions concerning a resolution to the FOV, including the amount of the penalty.

West Contra Costa Sanitary Landfill Matters

The West Contra Costa Sanitary Landfill is a closed landfill formerly operated by West Contra Costa Sanitary Landfill, Inc. (WCCSL). The top deck area of the closed landfill is being utilized for a composting operation. In 2017, the Contra Costa County Health Department and the Bay Area Air Quality Management District requested that the Contra Costa County District Attorney's Office (DA) initiate a civil enforcement action against WCCSL with respect to Notices of Violation (NOVs) from 2016 and 2017 for issues including alleged offsite odors from the composting operation and fire events in compost curing piles. In 2017 and 2018, the California State Water Resources Control Board (Water Board) issued three NOVs alleging that operations at the closed landfill violated stormwater and waste discharge requirements permits. In September 2018, we received separate penalty demands from the DA and the Water Board, totaling approximately \$1.2 million in civil penalties and enforcement costs. WCCSL is in discussions concerning a resolution to the NOVs, including the amount of penalties and enforcement costs.

ITEM 1A. RISK FACTORS.

Our material risk factors are disclosed in Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2018. There have been no material changes during the six months ended June 30, 2019 from or updates to the risk factors discussed in Part I, Item 1A, Risk Factors, of our 2018 Annual Report on Form 10-K.



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

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, 2019:

	Total Number of Shares Purchased (a)	Average Price Paid per Share (a)	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)
April 1 - 30	278,641	\$ 79.14	278,641	\$ 970,511,293
May 1 - 31	662,103	\$ 83.52	662,103	\$ 915,213,820
June 1 - 30	160,123	\$ 85.06	160,123	\$ 901,594,297
	1,100,867		1,100,867	

a. In October 2017, our Board of Directors added \$2.0 billion to the existing share repurchase authorization that now extends through December 31, 2020. 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, 2019, less than 0.1 million repurchased shares were pending settlement and an associated \$0.9 million was unpaid and included within our other accrued liabilities.

b. The total number of shares purchased as part of the publicly announced program were all purchased pursuant to the October 2017 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.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES.

None.

ITEM 4. MINE SAFETY DISCLOSURES.

None.

ITEM 5. OTHER INFORMATION.

None.

ITEM 6. EXHIBITS.

Exhibit Number	Description of Exhibit
<u>31.1*</u>	Rule 13a-14(a)/15d-14(a) Certification of Chief Executive Officer.
<u>31.2*</u>	Rule 13a-14(a)/15d-14(a) Certification of Chief Financial Officer.
<u>32.1*</u>	Section 1350 Certification of Chief Executive Officer.
<u>32.2*</u>	Section 1350 Certification of Chief Financial Officer.
<u>10.1+*</u>	Offer Letter, dated April 29, 2019, by and between Jon Vander Ark and Republic Services, Inc.
<u>10.2+*</u>	Non-Competition, Non-Solicitation, Confidentiality and Arbitration Agreement, effective May 1, 2019, by and between Jon Vander Ark and Republic Services, Inc.
<u>10.3+*</u>	Offer Letter, dated April 29, 2019, by and between Timothy Stuart and Republic Services, Inc.
<u>10.4+*</u>	Non-Competition, Non-Solicitation, Confidentiality and Arbitration Agreement, effective May 1, 2019, by and between Timothy Stuart and Republic Services, Inc.
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.

* Filed herewith.

+ Indicates a management or compensatory plan or arrangement.

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.

Date: July 25, 2019

Date: July 25, 2019

By:	/s/ Charles F. Serianni							
Charles F. Serianni								
Executive Vice President, Chief Financial Officer (Principal Financial Officer)								
By:	/s/ Brian A. Goebel							
	Brian A. Goebel							

Vice President and Chief Accounting Officer (Principal Accounting Officer)



April 29, 2019 Mr. Jon Vander Ark

Dear Jon,

Congratulations! I am very pleased to promote you the position of President with Republic Services, Inc. (the "Company" or "Republic"), reporting directly to me, or other individuals as the Company may direct. I am excited about the opportunities presented by the Company and hope that you will continue as a member of the executive leadership team. If you accept this offer, your promotion will be effective May 1, 2019 ("Effective Date").

This letter sets forth the terms and conditions of our offer and highlights the basic components of your compensation. It is not intended to be a comprehensive description of all benefits available to you or to provide the details of the plans that govern the administration of compensation, equity and benefits, as our offerings change periodically.

You will be eligible for the following:

Base Salary: Your Base Salary will be \$775,000 annually, subject to applicable deductions and withholdings.

Annual Cash Incentive: You will continue to be eligible to participate in the Company's Executive Incentive Plan ("EIP"), or any successor or similar plan maintained by the Company for the benefit of similarly-situated employees, subject to the terms and conditions of such plans and at the discretion of and subject to approval by the Management Development and Compensation Committee (the "Committee"). Your award target for the 2019 Annual Cash Incentive has been set by the Committee to be 95% of your Base Salary.

For 2019, your target annual cash incentive under the EIP will remain at 90% of your Base Salary. In addition, the Committee has determined that you will be granted an additional annual cash incentive for 2019 ("2019 Supplemental Bonus") having a target set at 5% of your Base Salary, so that your total target annual cash incentive for 2019 is equal to 95% of Base Salary. Payment date, measurement criteria, targets, performance, and other aspects of this award (including negative discretion of the Committee) will be as if the award was made under the EIP (except for the provisions stating when awards under the EIP must be granted). The calculation of your 2019 bonus, will take into account your base salary, as in effect, prior to and after May 1, 2019.

Equity: You will continue to be eligible to participate in the Company's Amended and Restated 2007 Stock Incentive Plan ("Stock Plan"), or any successor or similar plan maintained by the Company for the benefit of similarly-situated employees, subject to the terms and conditions of such plans and the applicable award agreements. All awards under the Stock Plan are at the discretion of and subject to approval by the Committee or any authorized designee of the Committee.

Stock Ownership Guidelines: As President, you are expected to obtain within five years and thereafter maintain ownership of Republic common stock having the value set from time to time by the Company. The current value for President is three times Base Salary.

Performance Shares: You will continue to be eligible for a grant of Performance Shares ("PSUs") under the Stock Plan, or any successor or similar plan maintained by the Company for the benefit of similarly-situated employees, subject to the terms and conditions of such plan, the award agreement and the discretion of and approval by the Committee. A new performance share opportunity may be established each year. This incentive will be tied to achieving the Company's key financial and shareholder return goals as established by the Committee over a three-year performance cycle. As a reference, these goals for 2019 are cash flow value creation, return on invested capital, and relative total shareholder return. PSUs will be settled equally in shares of Company stock and cash.

Deferred Compensation Plan: As President, you will continue to be eligible for a contribution to the Republic's Deferred Compensation Plan ("DCP") that may be made annually at the discretion of the Committee.

Paid Time Off: Paid Time Off will continue to be accrued and used in accordance with the PTO policy applicable to similarly-situated employees.

Benefits: You will continue to be eligible to participate in all benefit plans that the Company makes available to similarly-situated employees.

Executive Separation Policy: Should your employment with the Company terminate at any time in the future while you are employed in the position of President, your eligibility for separation benefits will be governed by the Company's then applicable Executive Separation Policy.

Other Terms and Conditions

As a condition of your employment, you are required to sign a *Non-Competition, Non-Solicitation, Confidentiality and Arbitration Agreement*, which is enclosed with this offer.

While we hope that you will continue to have a long, successful and rewarding career with Republic, this offer is for "at will" employment, and either you or the Company may terminate your employment at any time and for any reason.

Jon, we are excited to have you assume the position of President and look forward to working with you in your new role. Please indicate your acceptance of this offer by countersigning this letter and returning the original to me. As always, please contact me if you have questions.

Sincerely,

/s/ Donald W. Slager President and Chief Executive Officer Republic Services, Inc.

/s/ Jon Vander Ark

Jon Vander Ark

04/29/2019

Date

NON-COMPETITION, NON-SOLICITATION, CONFIDENTIALITY AND ARBITRATION AGREEMENT

Republic Services, Inc. ("Company") and Jon Vander Ark, Employee ID No. 719051583 ("Executive") enter into this Non-Competition, Non-Solicitation, Confidentiality and Arbitration Agreement ("Agreement"), effective May 1, 2019 ("Effective Date"). Company and Executive are collectively referred to as the "Parties" in this Agreement. The Parties agree as follows:

1. **Consideration Executive Will Receive Under This Agreement.** The Parties recognize that in order for Executive to perform duties on behalf of Company, Executive needs to manage, use or otherwise have access to Confidential Information (as defined below). Accordingly, Company agrees to provide Executive with access to Confidential Information, subject to the terms and conditions of this Agreement. Executive agrees that, in exchange for Company providing Executive with access to Confidential Information, Executive's eligibility to participate in Company's Executive Separation Policy or any successor or similar policy maintained by Company for the benefit of similarly situated employees, and Company's agreement to employ Executive on an at-will basis, Executive accepts all of the terms and conditions contained in this Agreement.

2. **General Duties.** Executive will be entrusted with significant responsibility for managing aspects of Company's business. Executive also acknowledges that, due to the confidential nature of Executive's job responsibilities, Executive will be entrusted with significant responsibility for managing, using and otherwise handling Confidential Information (as defined below). Accordingly, Executive owes a fiduciary duty of loyalty, fidelity and allegiance to act at all times in the best interests of Company and to refrain from doing or saying anything to a third party or subordinate that injures Company.

3. Confidentiality Obligations.

3.1 For purposes of this Agreement, "Confidential Information" means Company's non-public, confidential, and/or proprietary information which includes, but is not limited to: information that would qualify as a trade secret; customer lists and agreements; customer service information; names of customer contacts and the identities of decision-makers; marketing plans; development plans; formulas; price data; cost data; price and fee amounts; pricing and billing policies; quoting procedures; marketing techniques; forecasts and forecast assumptions and volumes; information regarding Company's actual or potential customers, suppliers or other vendors; information about Company's routes, territories or target markets; Company's internal personnel and financial information, including purchasing and internal cost information and information about the profitability of particular operations; information about Company's future plans, policies and procedures; information about Company's landfill development plans, landfill capacities, special projects and the status of any permitting process or investigation; information that gives Company a competitive business advantage, or the opportunity of obtaining such an advantage, or the disclosure of which could be detrimental to Company's interests; and other non-public information that is not generally known outside Company.

3.2 As a direct consequence of Executive's access to Confidential Information, Executive agrees to the following restrictions and further agrees that such restrictions are reasonable:

(a) During Executive's employment with Company and after Executive's employment ends, Executive will not disclose Confidential Information to any person or entity either inside or outside of Company within the United States or any other territory, province or location in which Company conducts business other than as necessary in carrying out Executive's duties and responsibilities for Company, nor will Executive use, copy or transfer Confidential Information other than as necessary in carrying out Executive's duties and responsibilities for Company, without first obtaining Company's prior written consent. Nothing in this Agreement prohibits Executive from providing information to any administrative or governmental agency, or from testifying under the power of a subpoena issued from a court of competent jurisdiction. In the event a court concludes that the above post-employment restriction is unreasonable, Executive's obligations under this Section 3.2(a) will expire five (5) years after Executive's employment with Company ends.

(b) During Executive's employment with Company, Executive agrees not to use or disclose any previously obtained trade secret, proprietary or confidential information that Executive received from a prior employer or another third party.

(c) Executive agrees that all patents, trademarks, copyrights, trade secrets, inventions, discoveries, developments, know how, writings, computer programs, improvements, concepts, techniques, designs, data, processes, systems, domain names, works of authorship, or any other type of intellectual property right, wholly or partially, conceived, made,

developed or created, solely or with any third party, in the course of Executive's employment with Company or using Company's resources, that relates in any manner to the actual or reasonably anticipated business, research or development of Company, or that is suggested by Company, or results from matters of which Executive is aware of as a result of Executive's employment with Company, or from any task assigned to Executive or work performed by Executive for or on behalf of Company ("Intellectual Property"), is the sole and exclusive property of Company. In order to further protect Company, Executive agrees to promptly make full written disclosure to Company of, and hereby assigns and transfers to Company, and Company's legal representatives, successors and assigns, all of Executive's right, title and interest in any and all Intellectual Property (everywhere in the world) that Executive, either solely or jointly with others, conceives, makes, acquires, suggests, reduces to practice, or otherwise creates during Executive's employment with Company (or within six months later provided Executive's work product was a result solely of Executive's employment with Company) or using Company's resources. In addition, both during and after Executive's employment with Company ends, Executive agrees to execute and deliver all documents as Company may request in order to effectuate such assignment, obtain, maintain and enforce any of the intellectual property rights described above or to carry out the intent of this Agreement. Nothing in this Agreement applies to any Intellectual Property for which no Company equipment, supplies, facility or Confidential Information was used and which was developed on Executive's own time, and which does not relate directly to the business of Company or to Company's actual or demonstrably anticipated research or development, and which does not result from any work performed by Executive for Company. Executive confirms that, except for that which Executive previously disclosed to Company in writing, Executive has no Intellectual Property that was made by Executive prior to Executive's employment with Company that belongs to Executive and which relates to Company's current or proposed business, services, products, or research and development. Executive further confirms that nothing in this Agreement is intended to grant Executive any rights in or to Company's Intellectual Property. Executive also agrees to keep and maintain adequate and current written records of all Intellectual Property developed by Executive (solely or jointly with others) during Executive's employment with Company. The records may be in the form of notes, sketches, drawings, flow charts, electronic data or recordings, and any other format. The records will be available to and remain the sole property of Company at all times. Executive agrees not to remove such records from Company except as expressly permitted by Company policy which may, from time to time, be revised at the sole discretion of Company.

(d) When Executive's employment with Company ends, or at the earlier request of Company, Executive agrees to immediately return to Company all Company property in Executive's possession, custody or control, including anything containing Confidential Information, such as documents, papers, files, records, reports, binders, notebooks, books, notes, calendars, plans, drawings, specifications, blueprints, studies, photographs, video recordings, audio recordings, computers, tablets, smartphones, mobile telephones, drives, discs, Blackberry devices, iOS devices, Windows devices, Android devices, and any other devices used to store electronic data whether made by Executive or which came into Executive's possession concerning the business or affairs of Company, including any and all electronic copies and/or hard-copies. Upon Company's request, Executive agrees to provide Company with a written acknowledgment confirming that Executive has returned all Company property and Confidential Information.

4. Non-Competition and Non-Solicitation Obligations.

4.1 Definitions.

(a) "Non-hazardous Solid Waste Management" means the collection, hauling, disposal or recycling of non-hazardous refuse, and any other services or products offered, conducted, authorized or provided by Company during the last two (2) years of Executive's employment.

(b) "Principal Competitor" means: (1) Waste Management, Inc.; (2) Waste Connections, Inc.; (3) Progressive Waste Solutions, Ltd.; (4) Advanced Disposal Services, Inc.; (5) Casella Waste Systems, Inc.; or (6) any other public or private business (including their predecessors, successors, parents, subsidiaries, or affiliate operations) conducting Non-hazardous Solid Waste Management in three (3) or more states, territories or provinces in which Company conducts business.

(c) "Competitor" means any public or private business that provides Non-hazardous Solid Waste Management in any state, territory, province or other location in which Company conducts business.

(d) "Render Services" means any of the following activities, whether done directly or through others, whether done in person or through telephonic, electronic, or some other means of communication, and whether done as a principal, owner, director, officer, agent, employee, partner, member, contractor or consultant: (1) performing any kind of services, functions, duties or actions (including, but not limited to, sales, marketing, brokering, supervision and/or management) related to Non-hazardous Solid Waste Management; (2) developing, managing, analyzing, processing or otherwise handling data or information related to Non-hazardous Solid Waste Management; (3) developing, managing, analyzing, processing or otherwise handling data or

information related to the potential or actual acquisition of businesses that engage in Non-hazardous Solid Waste Management, or participating in any decision, or developing, or implementing any strategy, to acquire such businesses; (4) conducting, participating in, or otherwise assisting any review of the prices/rates charged by Company, whether in connection with an initial contract bid, a contract extension or a request for a price/rate increase; (5) soliciting, requesting, reviewing, analyzing or otherwise handling Confidential Information about the costs (including SG&A or operational), revenues or profit margins of Company; (6) determining, advising or recommending whether to award a contract to Company, extend a contract with Company or whether, and to what extent, Company may increase its prices/rates; or (7) performing any activities that are the same as, or substantially similar to, the duties and functions Executive performed for Company at any time during the last two (2) years of Executive's employment.

(e) "Solicit" means any direct or indirect interaction between Executive and another person or entity that takes place in an effort to develop or further a business relationship.

(f) "Material Contact" exists with any customers or potential customers of Company with whom Executive dealt, whose dealings with Company were coordinated or supervised by Executive, about whom Executive obtained Confidential Information, or who received Non-hazardous Solid Waste Management services or products from Company and for which Executive received compensation, commission or earnings during the last two (2) years of Executive's employment.

(g) "Facility" means the physical location at which Company owns, leases or operates: (1) an office, workplace or other location where Company conducts business; (2) a collection operation; or (3) a post-collection operation (including, but not limited to, landfills, transfer stations, material recovery facilities, recycling facilities and compost facilities).

4.2 Prohibition Against Competition. During Executive's employment with Company, and for two (2) years after Executive's employment ends, Executive will not Render Services on behalf of any Principal Competitor, or any Competitor, within any state, territory, province or other location in which Company conducts business. In the event a court concludes that the above post-employment restriction is unreasonable, Executive agrees that, for eighteen (18) months after Executive's employment ends, Executive will not Render Services on behalf of any Principal Competitor, or any Competitor, or any Competitor, within fifty (50) miles of any Facility.

4.3 Prohibition Against Solicitation.

(a) During Executive's employment with Company, and for two (2) years after Executive's employment ends, Executive will not Solicit on behalf of any Principal Competitor, or any Competitor, any customers or potential customers of Company with whom Executive had Material Contact. In the event a court concludes that the above post-employment restriction is unreasonable, Executive will not Solicit on behalf of any Principal Competitor, or any Competitor, any customers or potential customers of Company with whom Executive had Material Contact for eighteen (18) months after Executive's employment with Company ends.

(b) During Executive's employment with Company, and for two (2) years after Executive's employment ends, Executive will not Solicit any employee, consultant, agent or independent contractor of Company to obtain employment with or perform services for another person or entity including, but not limited to, a Principal Competitor or a Competitor, to the detriment of Company. This restriction is limited to any employee, consultant, agent or independent contractor of Company that Executive had contact with during Executive's employment or with whom Executive had knowledge of by virtue of Executive's access to Confidential Information. In the event a court concludes that the above post-employment restriction is unreasonable, Executive will not Solicit any employee, consultant, agent or independent contractor of Company to obtain employment with or perform services for another person or entity including, but not limited to, a Principal Competitor, to the detriment of Company for eighteen (18) months after Executive's employment with Company ends.

5. **Obligation to Avoid Conflicts of Interest.** During Executive's employment with Company, Executive agrees to abide by Company's Conflicts of Interests policy, which includes not becoming involved, directly or indirectly, in a situation that a reasonable person would recognize to be a conflict of interest with Company. If Executive discovers, or is informed by Company, that Executive has become involved in a situation that is an actual or likely conflict of interest, Executive will take immediate action to eliminate the conflict. Company's determination as to whether or not a conflict of interest exists will be conclusive.

6. **Notice to New Employers.** During Executive's employment with Company, and for two (2) years after Executive's employment ends, Executive agrees to provide a copy of this Agreement to any prospective employer before accepting any offer of employment. If Executive accepts an offer of employment with any Principal Competitor or any Competitor, Executive agrees to provide Company with notice of Executive's acceptance within seven (7) days after Executive accepts the offer of employment.

7. Judicial Modification. If a court determines that any of the provisions in Sections 2, 3, 4, 5 or 6 of this Agreement are overbroad or unenforceable, the Parties expressly authorize the court to modify or strike the provision and impose the broadest restrictions permissible under the law, without affecting any other provision of this Agreement.

8. **Company Affiliates.** The Parties expect that some or all of the duties or responsibilities of Company under this Agreement may be satisfied by its parent, subsidiary, related or successor companies ("Affiliates"). Accordingly, Executive acknowledges that the discharge of any duty or responsibility of Company under this Agreement by one or more of its Affiliates discharges Company's duty or responsibility in that regard. Executive further acknowledges that Executive's obligations under this Agreement will be owed to Company and its Affiliates (collectively referred to as "Company" in this Agreement).

9. **Injunctive Relief.** The Parties agree that, if Executive breaches any of the provisions in Sections 2, 3, 4, 5 or 6 of this Agreement, Company will suffer immediate and irreparable harm and that, in the event of such breach, Company will have, in addition to any and all remedies of law, the right to an injunction, specific performance and other equitable relief. Additionally, to provide Company with the protections it has bargained for in this Agreement, any period of time in which Executive has been in breach will extend, by that same amount of time, the time for which Executive should be prevented from further breaching the promises Executive made in Sections 2, 3, 4, 5 and 6 of this Agreement.

10. Assignment. Company may assign this Agreement upon written notice to Executive. Executive's rights and obligations under this Agreement are personal to Executive and may not be assigned.

11. Waiver of Breach. The waiver by any Party of a breach of any provision of this Agreement will neither operate nor be construed as a waiver of any subsequent breach.

12. Attorneys' Fees and Costs. The Parties agree that, if Executive breaches any term of this Agreement, Company will be entitled to recover the attorneys' fees and costs it incurs enforcing this Agreement.

13. **Governing Law, Jurisdiction and Venue.** This Agreement shall be governed and interpreted in accordance with the laws of the State of Arizona. Additionally, the Parties agree that the courts situated in Maricopa County, Arizona will have personal jurisdiction over them to hear all disputes arising under, or related to, this Agreement and that venue will be proper only in Maricopa County, Arizona.

14. **Arbitration.** With the sole exception of any breach by Executive of the obligations Executive assumed under Sections 2, 3, 4, 5 and 6 of this Agreement (the breach of which permits Company to obtain judicial relief due to the exigent circumstances presented by such a breach), all other alleged breaches of this Agreement, or any other dispute between the Parties arising out of or in connection with Executive's employment with Company will be settled by binding arbitration to the fullest extent permitted by law. This Agreement to arbitrate applies to any claim for relief of any nature, including, but not limited to, claims of wrongful discharge under statutory or common law; employment discrimination based on federal, state or local statute, ordinance or governmental regulations, including, but not limited to, discrimination prohibited by Title VII of the Civil Rights Act, the Age Discrimination in Employment Act, the Americans with Disabilities Act, the Family Medical Leave Act, and the Fair Labor Standards Act; claims of retaliatory discharge or other acts of retaliation; compensation disputes; tortious conduct; contractual violations; ERISA violations; and other statutory and common law claims and disputes, regardless of whether the statute was enacted or whether the common law doctrine was recognized at the time this Agreement was signed.

The Parties understand that they are agreeing to substitute one legitimate dispute resolution forum (arbitration) for another (litigation) because of the mutual advantages this forum offers, and are waiving their right to have their disputes (except as to alleged breaches of Sections 2, 3, 4, 5 and 6 of this Agreement) resolved in court. This substitution involves no surrender, by either Party, of any substantive, statutory or common law benefit, protection or defense.

The Parties agree that the arbitration proceeding will be conducted in Maricopa County, Arizona in accordance with the National Rules for the Resolution of Employment Disputes (National Rules) of the American Arbitration Association (AAA) in effect at the time a demand for arbitration is made. One arbitrator shall be used and he or she shall be chosen by mutual agreement of the Parties. If the Parties cannot agree on the selection of an arbitrator after thirty (30) days, an arbitrator shall be chosen by the AAA pursuant to its National Rules. The arbitrator shall coordinate and, as appropriate, limit all pre-arbitration discovery. However, the Parties shall have the right to obtain discovery through appropriate document requests, information requests, and depositions. The

arbitrator shall issue a written decision and award, stating the reasons for the award. The decision and award shall be exclusive, final, and binding on the Parties, their heirs, executors, administrators, successors, and assigns.

Company will pay all costs and expenses associated with the arbitration, except for the filing fees and costs that would have been required had the proceeding been initiated and maintained in a state or federal court located in Maricopa County, Arizona, which fees and costs Executive agrees to pay. Each Party agrees to pay their own respective attorneys' fees and expenses throughout the arbitration proceeding. The arbitrator may award the successful Party its attorneys' fees and expenses at the conclusion of the arbitration and any other relief provided by law.

15. Entire Agreement, No Oral Amendments. This Agreement replaces and merges all previous agreements and discussions relating to the subjects addressed in this Agreement and it constitutes the entire agreement between the Parties in that regard. This Agreement may not be modified except by a written agreement signed by Executive, or Executive's representative, and an authorized representative of Company.

Executive, intending to be bound, executes this Agreement as of the Effective Date.

EXECUTIVE

/s/ Jon Vander Ark Jon Vander Ark



April 29, 2019 Mr. Timothy Stuart

Dear Tim,

Congratulations! I am very pleased to promote you the position of Executive Vice President, Chief Operating Officer with Republic Services, Inc. (the "Company" or "Republic"), reporting directly to Jon Vander Ark, President, or other individuals as the Company may direct. I am excited about the opportunities presented by the Company and hope that you will continue as a member of the executive leadership team. If you accept this offer, your promotion will be effective May 1, 2019 ("Effective Date").

This letter sets forth the terms and conditions of our offer and highlights the basic components of your compensation. It is not intended to be a comprehensive description of all benefits available to you or to provide the details of the plans that govern the administration of compensation, equity and benefits, as our offerings change periodically.

You will be eligible for the following:

Base Salary: Your Base Salary will be \$625,000 annually, subject to applicable deductions and withholdings.

Annual Cash Incentive: You will continue to be eligible to participate in the Company's Executive Incentive Plan ("EIP"), or any successor or similar plan maintained by the Company for the benefit of similarly-situated employees, subject to the terms and conditions of such plans and at the discretion of and subject to approval by the Management Development and Compensation Committee (the "Committee"). Your award target for the 2019 Annual Cash Incentive has been set by the Committee to be 85% of your Base Salary.

For 2019, your target annual cash incentive under the EIP will remain at 80% of your Base Salary. In addition, the Committee has determined that you will be granted an additional annual cash incentive for 2019 ("2019 Supplemental Bonus") having a target set at 5% of your Base Salary, so that your total target annual cash incentive for 2019 is equal to 85% of Base Salary. Payment date, measurement criteria, targets, performance, and other aspects of this award (including negative discretion of the Committee) will be as if the award was made under the EIP (except for the provisions stating when awards under the EIP must be granted). The calculation of your 2019 bonus, will take into account your base salary, as in effect, prior to and after May 1, 2019.

Equity: You will continue to be eligible to participate in the Company's Amended and Restated 2007 Stock Incentive Plan ("Stock Plan"), or any successor or similar plan maintained by the Company for the benefit of similarly-situated employees, subject to the terms and conditions of such plans and the applicable award agreements. All awards under the Stock Plan are at the discretion of and subject to approval by the Committee or any authorized designee of the Committee.

Stock Ownership Guidelines: As Executive Vice President, Chief Operating Officer, you are expected to obtain within five years and thereafter maintain ownership of Republic common stock having the value equal to three times Base Salary or such other amount as set from time to time by the Company. As a newly promoted employee, you will have five years from the Effective Date to reach this increased level of stock ownership.

Performance Shares: You will continue to be eligible for a grant of Performance Shares ("PSUs") under the Stock Plan, or any successor or similar plan maintained by the Company for the benefit of similarly-situated employees, subject to the terms and conditions of such plan, the award agreement and the discretion of and approval by the Committee. A new performance share opportunity may be established each year. This incentive will be tied to achieving the Company's key financial and shareholder return goals as established by the Committee over a three-year performance cycle. As a reference, these goals for 2019 are cash flow value creation, return on invested capital, and relative total shareholder return. PSUs will be settled equally in shares of Company stock and cash.

Deferred Compensation Plan: As an Executive Vice President, you will continue to be eligible for a contribution to the Republic's Deferred Compensation Plan ("DCP") that may be made annually at the discretion of the Committee.

Paid Time Off: Paid Time Off will continue to be accrued and used in accordance with the PTO policy applicable to similarly-situated employees.

Benefits: You will continue to be eligible to participate in all benefit plans that the Company makes available to similarly-situated employees.

Executive Separation Policy: Should your employment with the Company terminate at any time in the future while you are employed in the position of Executive Vice President, Chief Operating Officer, your eligibility for separation benefits will be governed by the Company's then applicable Executive Separation Policy.

Other Terms and Conditions

As a condition of your employment, you are required to sign a *Non-Competition, Non-Solicitation, Confidentiality and Arbitration Agreement*, which is enclosed with this offer.

While we hope that you will continue to have a long, successful and rewarding career with Republic, this offer is for "at will" employment, and either you or the Company may terminate your employment at any time and for any reason.

Tim, we are excited to have you assume the position of Executive Vice President, Chief Operating Officer and look forward to working with you in your new role. Please indicate your acceptance of this offer by countersigning this letter and returning the original to me. As always, please contact me if you have questions.

Sincerely,

/s/ Donald W. Slager President and Chief Executive Officer Republic Services, Inc.

/s/ Timothy Stuart

Timothy Stuart

4/29/2019

Date

NON-COMPETITION, NON-SOLICITATION, CONFIDENTIALITY AND ARBITRATION AGREEMENT

Republic Services, Inc. ("Company") and Timothy Stuart, Employee ID No. 551131159 ("Executive") enter into this Non-Competition, Non-Solicitation, Confidentiality and Arbitration Agreement ("Agreement"), effective May 1, 2019 ("Effective Date"). Company and Executive are collectively referred to as the "Parties" in this Agreement. The Parties agree as follows:

1. **Consideration Executive Will Receive Under This Agreement.** The Parties recognize that in order for Executive to perform duties on behalf of Company, Executive needs to manage, use or otherwise have access to Confidential Information (as defined below). Accordingly, Company agrees to provide Executive with access to Confidential Information, subject to the terms and conditions of this Agreement. Executive agrees that, in exchange for Company providing Executive with access to Confidential Information, Executive's eligibility to participate in Company's Executive Separation Policy or any successor or similar policy maintained by Company for the benefit of similarly situated employees, and Company's agreement to employ Executive on an at-will basis, Executive accepts all of the terms and conditions contained in this Agreement.

2. **General Duties.** Executive will be entrusted with significant responsibility for managing aspects of Company's business. Executive also acknowledges that, due to the confidential nature of Executive's job responsibilities, Executive will be entrusted with significant responsibility for managing, using and otherwise handling Confidential Information (as defined below). Accordingly, Executive owes a fiduciary duty of loyalty, fidelity and allegiance to act at all times in the best interests of Company and to refrain from doing or saying anything to a third party or subordinate that injures Company.

3. Confidentiality Obligations.

3.1 For purposes of this Agreement, "Confidential Information" means Company's non-public, confidential, and/or proprietary information which includes, but is not limited to: information that would qualify as a trade secret; customer lists and agreements; customer service information; names of customer contacts and the identities of decision-makers; marketing plans; development plans; formulas; price data; cost data; price and fee amounts; pricing and billing policies; quoting procedures; marketing techniques; forecasts and forecast assumptions and volumes; information regarding Company's actual or potential customers, suppliers or other vendors; information about Company's routes, territories or target markets; Company's internal personnel and financial information, including purchasing and internal cost information about the profitability of particular operations; information about Company's publics; and procedures; information regarding the manner and methods of conducting Company's business; information about Company's landfill development plans, landfill capacities, special projects and the status of any permitting process or investigation; information that gives Company a competitive business advantage, or the opportunity of obtaining such an advantage, or the disclosure of which could be detrimental to Company's interests; and other non-public information that is not generally known outside Company.

3.2 As a direct consequence of Executive's access to Confidential Information, Executive agrees to the following restrictions and further agrees that such restrictions are reasonable:

(a) During Executive's employment with Company and after Executive's employment ends, Executive will not disclose Confidential Information to any person or entity either inside or outside of Company within the United States or any other territory, province or location in which Company conducts business other than as necessary in carrying out Executive's duties and responsibilities for Company, nor will Executive use, copy or transfer Confidential Information other than as necessary in carrying out Executive's duties and responsibilities for Company, without first obtaining Company's prior written consent. Nothing in this Agreement prohibits Executive from providing information to any administrative or governmental agency, or from testifying under the power of a subpoena issued from a court of competent jurisdiction. In the event a court concludes that the above post-employment restriction is unreasonable, Executive's obligations under this Section 3.2(a) will expire five (5) years after Executive's employment with Company ends.

(b) During Executive's employment with Company, Executive agrees not to use or disclose any previously obtained trade secret, proprietary or confidential information that Executive received from a prior employer or another third party.

(c) Executive agrees that all patents, trademarks, copyrights, trade secrets, inventions, discoveries, developments, know how, writings, computer programs, improvements, concepts, techniques, designs, data, processes, systems, domain names, works of authorship, or any other type of intellectual property right, wholly or partially, conceived, made,

developed or created, solely or with any third party, in the course of Executive's employment with Company or using Company's resources, that relates in any manner to the actual or reasonably anticipated business, research or development of Company, or that is suggested by Company, or results from matters of which Executive is aware of as a result of Executive's employment with Company, or from any task assigned to Executive or work performed by Executive for or on behalf of Company ("Intellectual Property"), is the sole and exclusive property of Company. In order to further protect Company, Executive agrees to promptly make full written disclosure to Company of, and hereby assigns and transfers to Company, and Company's legal representatives, successors and assigns, all of Executive's right, title and interest in any and all Intellectual Property (everywhere in the world) that Executive, either solely or jointly with others, conceives, makes, acquires, suggests, reduces to practice, or otherwise creates during Executive's employment with Company (or within six months later provided Executive's work product was a result solely of Executive's employment with Company) or using Company's resources. In addition, both during and after Executive's employment with Company ends, Executive agrees to execute and deliver all documents as Company may request in order to effectuate such assignment, obtain, maintain and enforce any of the intellectual property rights described above or to carry out the intent of this Agreement. Nothing in this Agreement applies to any Intellectual Property for which no Company equipment, supplies, facility or Confidential Information was used and which was developed on Executive's own time, and which does not relate directly to the business of Company or to Company's actual or demonstrably anticipated research or development, and which does not result from any work performed by Executive for Company. Executive confirms that, except for that which Executive previously disclosed to Company in writing, Executive has no Intellectual Property that was made by Executive prior to Executive's employment with Company that belongs to Executive and which relates to Company's current or proposed business, services, products, or research and development. Executive further confirms that nothing in this Agreement is intended to grant Executive any rights in or to Company's Intellectual Property. Executive also agrees to keep and maintain adequate and current written records of all Intellectual Property developed by Executive (solely or jointly with others) during Executive's employment with Company. The records may be in the form of notes, sketches, drawings, flow charts, electronic data or recordings, and any other format. The records will be available to and remain the sole property of Company at all times. Executive agrees not to remove such records from Company except as expressly permitted by Company policy which may, from time to time, be revised at the sole discretion of Company.

(d) When Executive's employment with Company ends, or at the earlier request of Company, Executive agrees to immediately return to Company all Company property in Executive's possession, custody or control, including anything containing Confidential Information, such as documents, papers, files, records, reports, binders, notebooks, books, notes, calendars, plans, drawings, specifications, blueprints, studies, photographs, video recordings, audio recordings, computers, tablets, smartphones, mobile telephones, drives, discs, Blackberry devices, iOS devices, Windows devices, Android devices, and any other devices used to store electronic data whether made by Executive or which came into Executive's possession concerning the business or affairs of Company, including any and all electronic copies and/or hard-copies. Upon Company's request, Executive agrees to provide Company with a written acknowledgment confirming that Executive has returned all Company property and Confidential Information.

4. Non-Competition and Non-Solicitation Obligations.

4.1 Definitions.

(a) "Non-hazardous Solid Waste Management" means the collection, hauling, disposal or recycling of non-hazardous refuse, and any other services or products offered, conducted, authorized or provided by Company during the last two (2) years of Executive's employment.

(b) "Principal Competitor" means: (1) Waste Management, Inc.; (2) Waste Connections, Inc.; (3) Progressive Waste Solutions, Ltd.; (4) Advanced Disposal Services, Inc.; (5) Casella Waste Systems, Inc.; or (6) any other public or private business (including their predecessors, successors, parents, subsidiaries, or affiliate operations) conducting Non-hazardous Solid Waste Management in three (3) or more states, territories or provinces in which Company conducts business.

(c) "Competitor" means any public or private business that provides Non-hazardous Solid Waste Management in any state, territory, province or other location in which Company conducts business.

(d) "Render Services" means any of the following activities, whether done directly or through others, whether done in person or through telephonic, electronic, or some other means of communication, and whether done as a principal, owner, director, officer, agent, employee, partner, member, contractor or consultant: (1) performing any kind of services, functions, duties or actions (including, but not limited to, sales, marketing, brokering, supervision and/or management) related to Non-hazardous Solid Waste Management; (2) developing, managing, analyzing, processing or otherwise handling data or information related to Non-hazardous Solid Waste Management; (3) developing, managing, analyzing, processing or otherwise handling data or

information related to the potential or actual acquisition of businesses that engage in Non-hazardous Solid Waste Management, or participating in any decision, or developing, or implementing any strategy, to acquire such businesses; (4) conducting, participating in, or otherwise assisting any review of the prices/rates charged by Company, whether in connection with an initial contract bid, a contract extension or a request for a price/rate increase; (5) soliciting, requesting, reviewing, analyzing or otherwise handling Confidential Information about the costs (including SG&A or operational), revenues or profit margins of Company; (6) determining, advising or recommending whether to award a contract to Company, extend a contract with Company or whether, and to what extent, Company may increase its prices/rates; or (7) performing any activities that are the same as, or substantially similar to, the duties and functions Executive performed for Company at any time during the last two (2) years of Executive's employment.

(e) "Solicit" means any direct or indirect interaction between Executive and another person or entity that takes place in an effort to develop or further a business relationship.

(f) "Material Contact" exists with any customers or potential customers of Company with whom Executive dealt, whose dealings with Company were coordinated or supervised by Executive, about whom Executive obtained Confidential Information, or who received Non-hazardous Solid Waste Management services or products from Company and for which Executive received compensation, commission or earnings during the last two (2) years of Executive's employment.

(g) "Facility" means the physical location at which Company owns, leases or operates: (1) an office, workplace or other location where Company conducts business; (2) a collection operation; or (3) a post-collection operation (including, but not limited to, landfills, transfer stations, material recovery facilities, recycling facilities and compost facilities).

4.2 Prohibition Against Competition. During Executive's employment with Company, and for two (2) years after Executive's employment ends, Executive will not Render Services on behalf of any Principal Competitor, or any Competitor, within any state, territory, province or other location in which Company conducts business. In the event a court concludes that the above post-employment restriction is unreasonable, Executive agrees that, for eighteen (18) months after Executive's employment ends, Executive will not Render Services on behalf of any Principal Competitor, or any Competitor, or any Competitor, within fifty (50) miles of any Facility.

4.3 Prohibition Against Solicitation.

(a) During Executive's employment with Company, and for two (2) years after Executive's employment ends, Executive will not Solicit on behalf of any Principal Competitor, or any Competitor, any customers or potential customers of Company with whom Executive had Material Contact. In the event a court concludes that the above post-employment restriction is unreasonable, Executive will not Solicit on behalf of any Principal Competitor, or any Competitor, any customers or potential customers or potential customers of company with whom Executive had Material Contact for eighteen (18) months after Executive's employment with Company ends.

(b) During Executive's employment with Company, and for two (2) years after Executive's employment ends, Executive will not Solicit any employee, consultant, agent or independent contractor of Company to obtain employment with or perform services for another person or entity including, but not limited to, a Principal Competitor or a Competitor, to the detriment of Company. This restriction is limited to any employee, consultant, agent or independent contractor of Company that Executive had contact with during Executive's employment or with whom Executive had knowledge of by virtue of Executive's access to Confidential Information. In the event a court concludes that the above post-employment restriction is unreasonable, Executive will not Solicit any employee, consultant, agent or independent contractor of Company to obtain employment with or perform services for another person or entity including, but not Principal Competitor or a Competitor, to the detriment of Company for eighteen (18) months after Executive's employment with Company ends.

5. **Obligation to Avoid Conflicts of Interest.** During Executive's employment with Company, Executive agrees to abide by Company's Conflicts of Interests policy, which includes not becoming involved, directly or indirectly, in a situation that a reasonable person would recognize to be a conflict of interest with Company. If Executive discovers, or is informed by Company, that Executive has become involved in a situation that is an actual or likely conflict of interest, Executive will take immediate action to eliminate the conflict. Company's determination as to whether or not a conflict of interest exists will be conclusive.

6. **Notice to New Employers.** During Executive's employment with Company, and for two (2) years after Executive's employment ends, Executive agrees to provide a copy of this Agreement to any prospective employer before accepting any offer of employment. If Executive accepts an offer of employment with any Principal Competitor or any Competitor, Executive agrees to provide Company with notice of Executive's acceptance within seven (7) days after Executive accepts the offer of employment.

7. Judicial Modification. If a court determines that any of the provisions in Sections 2, 3, 4, 5 or 6 of this Agreement are overbroad or unenforceable, the Parties expressly authorize the court to modify or strike the provision and impose the broadest restrictions permissible under the law, without affecting any other provision of this Agreement.

8. **Company Affiliates.** The Parties expect that some or all of the duties or responsibilities of Company under this Agreement may be satisfied by its parent, subsidiary, related or successor companies ("Affiliates"). Accordingly, Executive acknowledges that the discharge of any duty or responsibility of Company under this Agreement by one or more of its Affiliates discharges Company's duty or responsibility in that regard. Executive further acknowledges that Executive's obligations under this Agreement will be owed to Company and its Affiliates (collectively referred to as "Company" in this Agreement).

9. **Injunctive Relief.** The Parties agree that, if Executive breaches any of the provisions in Sections 2, 3, 4, 5 or 6 of this Agreement, Company will suffer immediate and irreparable harm and that, in the event of such breach, Company will have, in addition to any and all remedies of law, the right to an injunction, specific performance and other equitable relief. Additionally, to provide Company with the protections it has bargained for in this Agreement, any period of time in which Executive has been in breach will extend, by that same amount of time, the time for which Executive should be prevented from further breaching the promises Executive made in Sections 2, 3, 4, 5 and 6 of this Agreement.

10. Assignment. Company may assign this Agreement upon written notice to Executive. Executive's rights and obligations under this Agreement are personal to Executive and may not be assigned.

11. Waiver of Breach. The waiver by any Party of a breach of any provision of this Agreement will neither operate nor be construed as a waiver of any subsequent breach.

12. Attorneys' Fees and Costs. The Parties agree that, if Executive breaches any term of this Agreement, Company will be entitled to recover the attorneys' fees and costs it incurs enforcing this Agreement.

13. **Governing Law, Jurisdiction and Venue.** This Agreement shall be governed and interpreted in accordance with the laws of the State of Arizona. Additionally, the Parties agree that the courts situated in Maricopa County, Arizona will have personal jurisdiction over them to hear all disputes arising under, or related to, this Agreement and that venue will be proper only in Maricopa County, Arizona.

14. **Arbitration.** With the sole exception of any breach by Executive of the obligations Executive assumed under Sections 2, 3, 4, 5 and 6 of this Agreement (the breach of which permits Company to obtain judicial relief due to the exigent circumstances presented by such a breach), all other alleged breaches of this Agreement, or any other dispute between the Parties arising out of or in connection with Executive's employment with Company will be settled by binding arbitration to the fullest extent permitted by law. This Agreement to arbitrate applies to any claim for relief of any nature, including, but not limited to, claims of wrongful discharge under statutory or common law; employment discrimination based on federal, state or local statute, ordinance or governmental regulations, including, but not limited to, discrimination prohibited by Title VII of the Civil Rights Act, the Age Discrimination in Employment Act, the Americans with Disabilities Act, the Family Medical Leave Act, and the Fair Labor Standards Act; claims of retaliatory discharge or other acts of retaliation; compensation disputes; tortious conduct; contractual violations; ERISA violations; and other statutory and common law claims and disputes, regardless of whether the statute was enacted or whether the common law doctrine was recognized at the time this Agreement was signed.

The Parties understand that they are agreeing to substitute one legitimate dispute resolution forum (arbitration) for another (litigation) because of the mutual advantages this forum offers, and are waiving their right to have their disputes (except as to alleged breaches of Sections 2, 3, 4, 5 and 6 of this Agreement) resolved in court. This substitution involves no surrender, by either Party, of any substantive, statutory or common law benefit, protection or defense.

The Parties agree that the arbitration proceeding will be conducted in Maricopa County, Arizona in accordance with the National Rules for the Resolution of Employment Disputes (National Rules) of the American Arbitration Association (AAA) in effect at the time a demand for arbitration is made. One arbitrator shall be used and he or she shall be chosen by mutual agreement of the Parties. If the Parties cannot agree on the selection of an arbitrator after thirty (30) days, an arbitrator shall be chosen by the AAA pursuant to its National Rules. The arbitrator shall coordinate and, as appropriate, limit all pre-arbitration discovery. However, the Parties shall have the right to obtain discovery through appropriate document requests, information requests, and depositions. The

arbitrator shall issue a written decision and award, stating the reasons for the award. The decision and award shall be exclusive, final, and binding on the Parties, their heirs, executors, administrators, successors, and assigns.

Company will pay all costs and expenses associated with the arbitration, except for the filing fees and costs that would have been required had the proceeding been initiated and maintained in a state or federal court located in Maricopa County, Arizona, which fees and costs Executive agrees to pay. Each Party agrees to pay their own respective attorneys' fees and expenses throughout the arbitration proceeding. The arbitrator may award the successful Party its attorneys' fees and expenses at the conclusion of the arbitration and any other relief provided by law.

15. Entire Agreement, No Oral Amendments. This Agreement replaces and merges all previous agreements and discussions relating to the subjects addressed in this Agreement and it constitutes the entire agreement between the Parties in that regard. This Agreement may not be modified except by a written agreement signed by Executive, or Executive's representative, and an authorized representative of Company.

Executive, intending to be bound, executes this Agreement as of the Effective Date.

EXECUTIVE

/s/ Timothy Stuart Timothy Stuart

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, Donald W. Slager, 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.

DONALD W. SLAGER

Donald W. Slager Chief Executive Officer (Principal Executive Officer)

/s/

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, Charles F. Serianni, 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/ Charles F. Serianni

Charles F. Serianni Executive Vice President, Chief Financial Officer (Principal Financial Officer)

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

In connection with the Quarterly Report on Form 10-Q of Republic Services, Inc. (the Company) for the period ended June 30, 2019 as filed with the Securities and Exchange Commission on the date hereof (the Report), I, Donald W. Slager, 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/ DONALD W. SLAGER

Donald W. Slager Chief Executive Officer (Principal Executive Officer)

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, 2019 as filed with the Securities and Exchange Commission on the date hereof (the Report), I, Charles F. Serianni, 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/ Charles F. Serianni

Charles F. Serianni Executive Vice President, Chief Financial Officer (Principal Financial Officer)