#### UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

### Form 10-K

(Mark One)

☑ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES AND EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2017

OR

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

Commission file number 1-12154

# **Waste Management, Inc.**

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

**73-1309529** (I.R.S. Employer Identification No.)

1001 Fannin Street Houston, Texas

(Address of principal executive offices)

77002

(Zip code)

Registrant's telephone number, including area code:

(713) 512-6200

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

<u>Title of Each Class</u> Common Stock, \$.01 par value Name of Each Exchange on Which Registered

New York Stock Exchange

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

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

Indicate by 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  $\boxtimes$  No  $\square$ 

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulations S-T ( $\S$  232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes  $\boxtimes$  No  $\square$ 

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulations S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of Registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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	$\square$	Accelerated filer □
Non-accelerated filer	☐ (Do not check if a smaller reporting company)	Smaller reporting company □
Emerging growth company	П	

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

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

The aggregate market value of the voting stock held by non-affiliates of the registrant as of June 30, 2017 was approximately \$32.2 billion. The aggregate market value was computed by using the closing price of the common stock as of that date on the New York Stock Exchange ("NYSE"). (For purposes of calculating this amount only, all directors and executive officers of the registrant have been treated as affiliates.)

The number of shares of Common Stock, \$0.01 par value, of the registrant outstanding as of February 8, 2018 was 433,673,878 (excluding treasury shares of 196,608,583).

### DOCUMENTS INCORPORATED BY REFERENCE

**Document** 

Incorporated as to

Proxy Statement for the 2018 Annual Meeting of Stockholders

Part III

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#### PART I

#### Item 1. Business.

#### General

Waste Management, Inc. is a holding company and all operations are conducted by its subsidiaries. When the terms "the Company," "we," "us" or "our" are used in this document, those terms refer to Waste Management, Inc., its consolidated subsidiaries and consolidated variable interest entities. When we use the term "WM," we are referring only to Waste Management, Inc., the parent holding company.

WM was incorporated in Oklahoma in 1987 under the name "USA Waste Services, Inc." and was reincorporated as a Delaware company in 1995. In a 1998 merger, the Illinois-based waste services company formerly known as Waste Management, Inc. became a wholly-owned subsidiary of WM and changed its name to Waste Management Holdings, Inc. ("WM Holdings"). At the same time, our parent holding company changed its name from USA Waste Services to Waste Management, Inc. Like WM, WM Holdings is a holding company and all operations are conducted by subsidiaries. For details on the financial position, results of operations and cash flows of WM, WM Holdings and their subsidiaries, see Note 21 to the Consolidated Financial Statements.

Our principal executive offices are located at 1001 Fannin Street, Houston, Texas 77002. Our telephone number is (713) 512-6200. Our website address is www.wm.com. Our annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K are all available, free of charge, on our website as soon as practicable after we file the reports with the SEC. Our stock is traded on the New York Stock Exchange under the symbol "WM."

We are North America's leading provider of comprehensive waste management environmental services. We partner with our residential, commercial, industrial and municipal customers and the communities we serve to manage and reduce waste at each stage from collection to disposal, while recovering valuable resources and creating clean, renewable energy. Our "Solid Waste" business is operated and managed locally by our subsidiaries that focus on distinct geographic areas and provides collection, transfer, disposal, and recycling and resource recovery services. Our "Traditional Solid Waste" business excludes our recycling and resource recovery services. Through our subsidiaries, we are also a leading developer, operator and owner of landfill gas-to-energy facilities in the United States ("U.S."). During 2017, our largest customer represented 1% of annual revenues. We employed approximately 42,300 people as of December 31, 2017.

We own or operate 249 landfill sites, which is the largest network of landfills in North America. In order to make disposal more practical for larger urban markets, where the distance to landfills is typically farther, we manage 305 transfer stations that consolidate, compact and transport waste efficiently and economically. We also use waste to create energy, recovering the gas produced naturally as waste decomposes in landfills and using the gas in generators to make electricity. We are a leading recycler in North America, handling materials that include paper, cardboard, glass, plastic and metal. We provide cost-efficient, environmentally sound recycling programs for municipalities, businesses and households across the U.S. and Canada as well as other services that supplement our Traditional Solid Waste business.

Our Company's goals are targeted at serving our customers, our employees, the environment, the communities in which we work and our stockholders. Increasingly, customers want more of their waste materials recovered while waste streams are becoming more complex, and our aim is to address the current needs, while anticipating the expanding and evolving needs of our customers.

We believe we are uniquely equipped to meet the challenges of the changing waste industry and our customers' waste management needs, both today and as we work together to envision and create a more sustainable future. As the waste industry leader, we have the expertise necessary to collect and handle our customers' waste efficiently and responsibly by delivering environmental performance — maximizing resource value, while minimizing environmental impact — so that both our economy and our environment can thrive.

Our fundamental strategy has not changed; we remain dedicated to providing long-term value to our stockholders by successfully executing our core strategy of focused differentiation and continuous improvement, with the current state of our strategy taking into account economic conditions, the regulatory environment, asset and resource availability and innovation through technology. We believe that focused differentiation in our industry, driven by capitalizing on our extensive, well-placed network of assets, will deliver profitable growth and competitive advantages. Simultaneously, we believe the combination of cost control, process improvement and operational efficiency will deliver on the Company's strategy of continuous improvement and yield an attractive total cost structure and enhanced service quality. While we will continue to monitor emerging diversion technologies that may generate additional value and related market dynamics, our current attention will be on improving existing diversion technologies, such as our recycling operations.

We believe that execution of our strategy will deliver shareholder value and leadership in a dynamic industry. In addition, we intend to continue to return value to our stockholders through dividend payments and our common stock repurchase program. In December 2017, we announced that our Board of Directors expects to increase the quarterly dividend from \$0.425 to \$0.465 per share for dividends declared in 2018, which is a 9.4% increase from the quarterly dividends we declared in 2017. This is an indication of our ability to generate strong and consistent cash flows and marks the 15th consecutive year of dividend increases. All quarterly dividends will be declared at the discretion of our Board of Directors.

#### **Operations**

#### General

We evaluate, oversee and manage the financial performance of our Solid Waste business subsidiaries through our 17 Areas. See Note 19 to the Consolidated Financial Statements for additional information about our reportable segments. We also provide additional services that are not managed through our Solid Waste business as described below. These operations are presented in this report as "Other."

The services we currently provide include collection, landfill (solid and hazardous waste landfills), transfer, recycling and resource recovery and other services, as described below. The following table shows revenues contributed by these services for the years ended December 31 (in millions):

	2017	2016	2015		
Collection	\$ 9,264	\$ 8,802	\$	8,439	
Landfill	3,370	3,110		2,919	
Transfer	1,591	1,512		1,377	
Recycling	1,432	1,221		1,163	
Other	1,713	1,601		1,452	
Intercompany	(2,885)	(2,637)		(2,389)	
Total	\$ 14,485	\$ 13,609	\$	12,961	

Collection. Our commitment to customers begins with a vast waste collection network. Collection involves picking up and transporting waste and recyclable materials from where it was generated to a transfer station, material recovery facility ("MRF") or disposal site. We generally provide collection services under one of two types of arrangements:

• For commercial and industrial collection services, typically we have a three-year service agreement. The fees under the agreements are influenced by factors such as collection frequency, type of collection equipment we furnish, type and volume or weight of the waste collected, distance to the disposal facility, labor costs, cost of disposal and general market factors. As part of the service, we provide steel containers to most customers to store their solid waste between pick-up dates. Containers vary in size and type according to the needs of our customers and the restrictions of their communities. Many are designed to be lifted mechanically and either emptied into a truck's compaction hopper or directly into a disposal site. By using these containers, we can service most of our commercial and industrial customers with trucks operated by only one employee.

• For most residential collection services, we have a contract with, or a franchise granted by, a municipality, homeowners' association or some other regional authority that gives us the exclusive right to service all or a portion of the homes in an area. These contracts or franchises are typically for periods of three to eight years. We also provide services under individual monthly subscriptions directly to households. The fees for residential collection are either paid by the municipality or authority from their tax revenues or service charges, or are paid directly by the residents receiving the service.

Landfill. Landfills are the main depositories for solid waste in North America. As of December 31, 2017, we owned or operated 244 solid waste landfills and five secure hazardous waste landfills, which represents the largest network of landfills in North America. Solid waste landfills are constructed and operated on land with engineering safeguards that limit the possibility of water and air pollution, and are operated under procedures prescribed by regulation. A landfill must meet federal, state or provincial, and local regulations during its design, construction, operation and closure. The operation and closure activities of a solid waste landfill include excavation, construction of liners, continuous spreading and compacting of waste, covering of waste with earth or other acceptable material and constructing final capping of the landfill. These operations are carefully planned to maintain environmentally safe conditions and to maximize the use of the airspace.

All solid waste management companies must have access to a disposal facility, such as a solid waste landfill. The significant capital requirements of developing and operating a landfill serve as a barrier to landfill ownership and, thus, third-party haulers often dispose of waste at our landfills. It is usually preferable for our collection operations to use disposal facilities that we own or operate, a practice we refer to as internalization, rather than using third-party disposal facilities. Internalization generally allows us to realize higher consolidated margins and stronger operating cash flows. The fees charged at disposal facilities, which are referred to as tipping fees, are based on several factors, including competition and the type and weight or volume of solid waste deposited.

Under environmental laws, the federal government (or states with delegated authority) must issue permits for all hazardous waste landfills. All of our hazardous waste landfills have obtained the required permits, although some can accept only certain types of hazardous waste. These landfills must also comply with specialized operating standards. Only hazardous waste in a stable, solid form, which meets regulatory requirements, can be deposited in our secure disposal cells. In some cases, hazardous waste can be treated before disposal. Generally, these treatments involve the separation or removal of solid materials from liquids and chemical treatments that transform waste into inert materials that are no longer hazardous. Our hazardous waste landfills are sited, constructed and operated in a manner designed to provide long-term containment of waste. We also operate a hazardous waste facility at which we isolate treated hazardous waste in liquid form by injection into deep wells that have been drilled in certain acceptable geologic formations far below the base of fresh water to a point that is safely separated by other substantial geological confining layers.

*Transfer.* As of December 31, 2017, we owned or operated 305 transfer stations in North America. We deposit waste at these stations, as do other waste haulers. The solid waste is then consolidated and compacted to reduce the volume and increase the density of the waste and transported by transfer trucks or by rail to disposal sites.

Access to transfer stations is critical to haulers who collect waste in areas not in close proximity to disposal facilities. Fees charged to third parties at transfer stations are usually based on the type and volume or weight of the waste deposited at the transfer station, the distance to the disposal site, market rates for disposal costs and other general market factors.

The utilization of our transfer stations by our own collection operations improves internalization by allowing us to retain fees that we would otherwise pay to third parties for the disposal of the waste we collect. It enables us to manage costs associated with waste disposal because (i) transfer trucks, railcars or rail containers have larger capacities than collection trucks, allowing us to deliver more waste to the disposal facility in each trip; (ii) waste is accumulated and compacted at transfer stations that are strategically located to increase the efficiency of our network of operations and (iii) we can retain the volume by managing the transfer of the waste to one of our own disposal sites.

The transfer stations that we operate but do not own generally are operated through lease agreements under which we lease property from third parties. There are some instances where transfer stations are operated under contract, generally

for municipalities. In most cases, we own the permits and will be responsible for any regulatory requirements relating to the operation and closure of the transfer station.

Recycling. Our recycling operations provide communities and businesses with an alternative to traditional landfill disposal and support our strategic goals to extract more value from the materials we manage. We were the first major solid waste company to focus on residential single-stream recycling, which allows customers to mix recyclable paper, plastic and glass in one bin. Residential single-stream programs have greatly increased the recycling volumes. Single-stream recycling is possible through the use of various mechanized screens and optical sorting technologies. We have also been advancing the single-stream recycling programs for commercial applications. Recycling involves the separation of reusable materials from the waste stream for processing and resale or other disposition. Our recycling operations include the following:

Materials processing — Through our collection operations, we collect recyclable materials from residential, commercial and industrial customers and direct these materials to one of our MRFs for processing. As of December 31, 2017, we operated 90 MRFs where paper, cardboard, metals, plastics, glass, construction and demolition materials and other recycling commodities are recovered for resale.

Recycling commodities — We market and resell recycling commodities globally. We manage the marketing of recycling commodities that are processed in our facilities by maintaining comprehensive service centers that continuously analyze market prices, logistics, market demands and product quality.

Recycling brokerage services — We also provide recycling brokerage services, which involve managing the marketing of recyclable materials for third parties. The experience of our recycling operations in managing recycling commodities for our own operations gives us the expertise needed to effectively manage volumes for third parties. Utilizing the resources and knowledge of our recycling operations' service centers, we can assist customers in marketing and selling their recycling commodities with minimal capital requirements.

Some of the recyclable materials processed in our MRFs are purchased from various sources, including third parties and our own operations. The price we pay for recyclable materials is often referred to as a "rebate." In some cases, rebates are based on fixed contractual rates or on defined minimum per-ton rates but are generally based upon the price we receive for sales of processed goods, market conditions and transportation costs. As a result, changes in commodity prices for recycled materials also significantly affect the rebates we pay to our suppliers, which are recorded as operating expenses within our Consolidated Statements of Operations. In recent years, we have been focused on revising our rebate structures to ensure that we cover our cost of handling and processing the materials and generate an acceptable margin on the materials we process and sell

Other. Other services we provide include the following:

Although many waste management services such as collection and disposal are local services, our strategic accounts organization, which is managed by our Strategic Business Solutions ("WMSBS") organization, works with customers whose locations span the U.S. Our strategic accounts program provides centralized customer service, billing and management of accounts to streamline the administration of customers' multiple and nationwide locations' waste management needs.

Our Energy and Environmental Services ("EES") organization offers our customers in all Areas a variety of services in collaboration with our Area and strategic accounts programs, including (i) construction and remediation services; (ii) services associated with the disposal of fly ash, residue generated from the combustion of coal and other fuel stocks; (iii) in-plant services, where our employees work full-time inside our customers' facilities to provide full-service waste management solutions and consulting services; this service is managed through our EES organization but reflected principally in our collection line of business and (iv) specialized disposal services for oil and gas exploration and production operations; revenues for this service are also reflected principally in our collection line of business. Our vertically integrated waste management operations enable us to provide customers with full management of their waste. The breadth of our service offerings and the familiarity we have with waste management practices gives us the unique

ability to assist customers in minimizing the amount of waste they generate, identifying recycling opportunities, determining the most efficient means available for waste collection and disposal and ensuring that disposal is achieved in a manner that is both reflective of the current regulatory environment and environmentally friendly.

We develop, operate and promote projects for the beneficial use of landfill gas through our WM Renewable Energy organization. Landfill gas is produced naturally as waste decomposes in a landfill. The methane component of the landfill gas is a readily available, renewable energy source that can be gathered and used beneficially as an alternative to fossil fuel. The U.S. Environmental Protection Agency ("EPA") endorses landfill gas as a renewable energy resource, in the same category as wind, solar and geothermal resources. As of December 31, 2017, we had 127 landfill gas beneficial use projects producing commercial quantities of methane gas at owned or operated landfills. For 102 of these projects, the processed gas is used to fuel electricity generators. The electricity is then sold to public utilities, municipal utilities or power cooperatives. For 13 of these projects, the gas is used at the landfill or delivered by pipeline to industrial customers as a direct substitute for fossil fuels in industrial processes. For 12 of these projects, the landfill gas is processed to pipeline-quality natural gas and then sold to natural gas suppliers.

We continue to invest in businesses and technologies that are designed to offer services and solutions ancillary or supplementary to our current operations. These investments include joint ventures, acquisitions and partial ownership interests. The solutions and services include the collection of project waste, including construction debris and household or yard waste, through our Bagster® program; the development, operation and marketing of plasma gasification facilities; operation of a landfill gas-to-liquid natural gas plant; solar powered trash compactors and organic waste-to-fuel conversion technology. We also have expanded service offerings and solutions including portable self-storage and long distance moving services; fluorescent bulb and universal waste mail-back through our LampTracker® program; portable restroom servicing under the name Port-o-Let®; and street and parking lot sweeping services. In addition, we hold interests in oil and gas producing properties.

#### Competition

We encounter intense competition from governmental, quasi-governmental and private sources in all aspects of our operations. In North America, the industry consists primarily of three national waste management companies and regional and local companies of varying sizes and financial resources, including companies that specialize in certain discrete areas of waste management, operators of alternative disposal facilities and companies that seek to use parts of the waste stream as feedstock for renewable energy and other by-products. In recent years, the industry has seen some additional consolidation, though the industry remains intensely competitive. The industry's national and regional competitors often face significant competitors in local markets. We compete with these companies as well as with counties and municipalities that maintain their own waste collection and disposal operations and waste brokers that rely upon haulers in local markets to address customer needs.

Operating costs, disposal costs and collection fees vary widely throughout the areas in which we operate. The prices that we charge are determined locally, and typically vary by volume and weight, type of waste collected, treatment requirements, risk of handling or disposal, frequency of collections, distance to final disposal sites, the availability of airspace within the geographic region, labor costs and amount and type of equipment furnished to the customer. We face intense competition in our Solid Waste business based on pricing and quality of service. We have also begun competing for business based on breadth of service offerings. As companies, individuals and communities look for ways to be more sustainable, we are investing in greener technologies and promoting our comprehensive services that go beyond our core business of collecting and disposing of waste.

#### **Seasonal Trends**

Our operating revenues tend to be somewhat higher in summer months, primarily due to the higher construction and demolition waste volumes. The volumes of industrial and residential waste in certain regions where we operate also tend to increase during the summer months. Our second and third quarter revenues and results of operations typically reflect these seasonal trends

Service disruptions caused by severe storms, extended periods of inclement weather or climate extremes resulting from climate change can significantly affect the operating results of the Areas affected. On the other hand, certain destructive weather conditions that tend to occur during the second half of the year, such as the hurricanes that most often impact our operations in the Southern and Eastern U.S., can increase our revenues in the Areas affected. While weather-related and other event driven special projects can boost revenues through additional work for a limited time, as a result of significant start-up costs and other factors, such revenue can generate earnings at comparatively lower margins.

#### **Employees**

As of December 31, 2017, we had approximately 42,300 full-time employees, of which approximately 7,900 were employed in administrative and sales positions and the balance in operations. Approximately 8,100 of our employees are covered by collective bargaining agreements.

#### Financial Assurance and Insurance Obligations

#### Financial Assurance

Municipal and governmental waste service contracts generally require contracting parties to demonstrate financial responsibility for their obligations under the contract. Financial assurance is also a requirement for (i) obtaining or retaining disposal site or transfer station operating permits; (ii) supporting variable-rate tax-exempt debt and (iii) estimated final capping, closure, post-closure and environmental remedial obligations at many of our landfills. We establish financial assurance using surety bonds, letters of credit, insurance policies, trust and escrow agreements and financial guarantees. The type of assurance used is based on several factors, most importantly: the jurisdiction, contractual requirements, market factors and availability of credit capacity.

Surety bonds and insurance policies are supported by (i) a diverse group of third-party surety and insurance companies; (ii) an entity in which we have a noncontrolling financial interest or (iii) a wholly-owned insurance captive, the sole business of which is to issue surety bonds and/or insurance policies on our behalf. Letters of credit generally are supported by our long-term U.S. revolving credit facility ("\$2.25 billion revolving credit facility") and other credit facilities established for that purpose.

#### Insurance

We carry a broad range of insurance coverages, including general liability, automobile liability, workers' compensation, real and personal property, directors' and officers' liability, pollution legal liability and other coverages we believe are customary to the industry. Our exposure to loss for insurance claims is generally limited to the per-incident deductible under the related insurance policy. In December 2017, we elected to use a wholly-owned insurance captive to insure the deductibles for our general liability, automobile liability and workers' compensation claims programs. As of December 31, 2017, both our commercial General Liability Insurance Policy and our workers' compensation insurance program carried self-insurance exposures of up to \$5 million per incident. As of December 31, 2017, our automobile liability insurance program included a per-incident deductible of up to \$10 million. We do not expect the impact of any known casualty, property, environmental or other contingency to have a material impact on our financial condition, results of operations or cash flows. Our estimated insurance liabilities as of December 31, 2017 are summarized in Note 10 to the Consolidated Financial Statements.

We previously chose to maintain a Directors' and Officers' Liability Insurance policy that covered only individual executive liability, often referred to as "Broad Form Side A." During 2017, due to attractive pricing, we converted to a traditional full coverage policy, and subject to the terms of that policy, the Company is now insured for money it advances for defense costs or pays as indemnity to the insured directors and officers in excess of applicable deductibles.

#### Regulation

Our business is subject to extensive and evolving federal, state or provincial and local environmental, health, safety and transportation laws and regulations. These laws and regulations are administered by the EPA, Environment Canada, and various other federal, state, provincial and local environmental, zoning, transportation, land use, health and safety agencies in the U.S. and Canada. Many of these agencies regularly examine our operations to monitor compliance with these laws and regulations and have the power to enforce compliance, obtain injunctions or impose civil or criminal penalties in case of violations.

Because the primary mission of our business is to collect and manage solid waste in an environmentally sound manner, a significant amount of our capital expenditures is related, either directly or indirectly, to environmental protection measures, including compliance with federal, state, provincial and local rules. There are costs associated with siting, design, permitting, operations, monitoring, site maintenance, corrective actions, financial assurance, and facility closure and post-closure obligations. With acquisition, development or expansion of a waste management or disposal facility or transfer station, we must often spend considerable time, effort and money to obtain or maintain required permits and approvals. There are no assurances that we will be able to obtain or maintain required governmental approvals. Once obtained, operating permits are subject to renewal, modification, suspension or revocation by the issuing agency. Compliance with current regulations and future requirements could require us to make significant capital and operating expenditures. However, most of these expenditures are made in the normal course of business and do not place us at any competitive disadvantage.

In recent years, we perceived an increase in both the amount of government regulation and the number of enforcement actions being brought by regulatory entities against operations in the waste services industry. The current U.S. presidential administration has called for substantial changes to foreign trade policy and has generally appeared to be in favor of reducing regulation, including environmental regulation. We cannot predict what impact the current administration will have on the political and regulatory environment in the U.S., the timing of any such changes, or the impact of any such changes on our business. Reduction of regulation may have a favorable impact on our operating costs, but the extensive environmental regulation applicable to landfills is a substantial barrier to entry that benefits our Company. Moreover, the risk reduction provided by stringent regulation is valuable to our customers and the communities we serve. It is likely that some policies adopted by the current administration will benefit us and others will negatively affect us. It also appears that pending litigation has blunted the impact of deregulation for the immediate future.

The primary U.S. federal statutes affecting our business are summarized below:

- The Resource Conservation and Recovery Act of 1976 ("RCRA"), as amended, regulates handling, transporting and disposing of hazardous and non-hazardous waste and delegates authority to states to develop programs to ensure the safe disposal of solid waste. In 1991, the EPA issued its final regulations under Subtitle D of RCRA, which set forth minimum federal performance and design criteria for solid waste landfills. These regulations are typically implemented by the states, although states can impose requirements that are more stringent than the Subtitle D standards. We incur costs in complying with these standards in the ordinary course of our operations.
- The Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, ("CERCLA") which is also known as Superfund, provides for federal authority to respond directly to releases or threatened releases of hazardous substances into the environment that have created actual or potential environmental hazards. CERCLA's primary means for addressing such releases is to impose strict liability for cleanup of disposal sites upon current and former site owners and operators, generators of the hazardous substances at the site and transporters who selected the disposal site and transported substances thereto. Liability under CERCLA is not dependent on the intentional release of hazardous substances; it can be based upon the release or threatened release of hazardous substances, even resulting from lawful, unintentional and attentive action, as the term is defined by CERCLA and other applicable statutes and regulations. The EPA may issue orders requiring responsible parties to perform response actions at sites, or the EPA may seek recovery of funds expended or to be expended in the future at sites. Liability may include contribution for cleanup costs incurred by a defendant in a CERCLA civil action or by an entity that has previously resolved its liability to federal or state regulators in an administrative or judicially-approved settlement. Liability under CERCLA could also

include obligations to a potentially responsible party ("PRP") that voluntarily expends site clean-up costs. Further, liability for damage to publicly-owned natural resources may also be imposed. We are subject to potential liability under CERCLA as an owner or operator of facilities at which hazardous substances have been disposed and as a generator or transporter of hazardous substances disposed of at other locations.

- The Federal Water Pollution Control Act of 1972, as amended, known as the Clean Water Act, regulates the discharge of pollutants into streams, rivers, groundwater, or other surface waters from a variety of sources, including solid and hazardous waste disposal sites. If our operations discharge any pollutants into surface waters, the Clean Water Act requires us to apply for and obtain discharge permits, conduct sampling and monitoring, and, under certain circumstances, reduce the quantity of pollutants in those discharges. In 1990, the EPA issued additional standards for management of storm water run-off that require landfills and other waste-handling facilities to obtain storm water discharge permits. Also, if a landfill or other facility discharges wastewater through a sewage system to a publicly-owned treatment works, the facility must comply with discharge limits imposed by the treatment works. Further, before the development or expansion of a landfill can alter or affect "wetlands," a permit may have to be obtained providing for mitigation or replacement wetlands. The Clean Water Act provides for civil, criminal and administrative penalties for violations of its provisions.
- The Clean Air Act of 1970, as amended, provides for federal, state and local regulation of the emission of air pollutants. Certain of our operations are subject to the requirements of the Clean Air Act, including large municipal solid waste landfills and landfill gas-to-energy facilities. In 1996 the EPA issued new source performance standards ("NSPS") and emission guidelines controlling landfill gases from new and existing large landfills. In January 2003, the EPA issued Maximum Achievable Control Technology ("MACT") standards for municipal solid waste landfills subject to the NSPS. These regulations impose limits on air emissions from large municipal solid waste landfills, subject most of these landfills to certain operating permit requirements under Title V of the Clean Air Act and, in many instances, require installation of landfill gas collection and control systems to control emissions or to treat and utilize landfill gas on- or off-site. On August 29, 2016, the EPA published two rules with new requirements for landfill gas control and monitoring at both new municipal solid waste landfills (constructed or modified after July 17, 2014) as well as existing landfills (operating after November 8, 1987 and not modified after July 17, 2014). Working with our trade associations and other landfill owners and operators, we identified significant legal, technical and implementation concerns with the rules and together filed administrative petitions asking that the EPA stay the rules and initiate a rulemaking process to address our concerns, while also filing a petition for judicial review. The EPA has agreed to initiate a rulemaking process to address legal and technical concerns and revise the final rules. The EPA is also reviewing the landfill MACT standards to determine whether revisions are warranted. A court has required that this Risk Technology Review must be completed and a final rule issued by March 2020. We cannot predict the final outcome of either rulemaking process; however, we do not believe regulatory changes, if determined, will have a material adverse impact on our business as a whole.

The EPA and the Department of Transportation finalized Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium and Heavy-Duty Engines and Vehicles – Phase 2 on August 16, 2016. The rule will increase fuel economy standards and reduce vehicle emissions standards for our collection fleet between model years 2021 and 2027. We expect to be able to purchase fully compliant vehicles that will meet our operational needs, and while the regulations could increase the costs of operating our fleet, we do not believe any such regulations would have a material adverse impact on our business as a whole.

• The Occupational Safety and Health Act of 1970, as amended, ("OSHA") establishes certain employer responsibilities, including maintenance of a workplace free of recognized hazards likely to cause death or serious injury, compliance with standards promulgated by the Occupational Safety and Health Administration, and various reporting and record keeping obligations as well as disclosure and procedural requirements. Various standards for notices of hazards, safety in excavation and demolition work and the handling of asbestos, may apply to our operations. The Department of Transportation and OSHA, along with other federal agencies, have jurisdiction over certain aspects of hazardous materials and hazardous waste, including safety, movement and disposal. Various state and local agencies with jurisdiction over disposal of hazardous waste may seek to regulate movement of hazardous materials in areas not otherwise preempted by federal law.

We are also actively monitoring the following recent developments in U.S. federal regulations affecting our business:

• In 2010, the EPA issued the Prevention of Significant Deterioration ("PSD") and Title V Greenhouse Gas ("GHG") Tailoring Rule, which expanded the EPA's federal air permitting authority to include the six GHGs, including methane and carbon dioxide. The rule sets new thresholds for GHG emissions that define when Clean Air Act permits are required. The requirements of these rules have not significantly affected our operations or cash flows, due to the tailored thresholds and exclusions of certain emissions from regulation.

Further, in June 2014, the U.S. Supreme Court issued a decision that significantly limited the applicability and scope of EPA permitting requirements for GHGs from stationary sources. Following this ruling, the EPA issued a policy memorandum in July 2014 advising that the U.S. Supreme Court ruling effectively narrows the scope of biogenic carbon dioxide ("CO2") permitting issues that remain for the EPA to address. Further, on October 3, 2016, the EPA proposed revisions to the PSD and Title V GHG permitting regulations establishing a significant emissions rate ("SER") of 75,000 tons of CO2 equivalent, below which sources would not be required to implement additional control technologies for their GHG emissions. This SER threshold should prevent most of our operational changes, such as landfill expansions and beneficial gas recovery projects, from being subject to PSD or Title V permit requirements due to our GHG emissions - assuming the EPA classifies biogenic CO2 emissions from municipal solid waste and landfill gas as carbon neutral. The EPA plans to finalize the rulemaking in 2018. The EPA has not yet finalized its policy for addressing biogenic CO2 emissions from waste management; however, the EPA's independent Science Advisory Board has recommended it treat waste-derived CO2 emissions as carbon-neutral. The result of the U.S. Supreme Court ruling and anticipated EPA policy and regulatory action should significantly reduce the potential impact of the PSD and Title V GHG Tailoring Rule on our air permits, compliance and operating requirements. See Item 1A. Risk Factors — The adoption of climate change legislation or regulations restricting emissions of "greenhouse gases" could increase our costs to operate.

Other recent final and proposed rules to increase the stringency of certain National Ambient Air Quality Standards ("NAAQS") could affect the cost, timeliness and availability of air permits for new and modified large municipal solid waste landfills and landfill gas-to-energy facilities. However, the EPA under the current administration is reviewing the implementation of the new NAAQS and considering revisions to make the regulations less stringent. While we cannot predict the ultimate outcome of potential revisions to NAAQS, we do not believe that the ultimate requirements will have a material adverse impact on our business as a whole.

We continue to anticipate the needs of our customers, which includes investing in and developing ever-more-advanced recycling and reuse technologies. Potential climate change, GHG regulatory, and corporate sustainability initiatives have influenced our business strategy to provide low-carbon services to our customers, and we increasingly view our ability to offer lower carbon services as a key component of our business growth. If the U.S. were to impose a carbon tax or other form of GHG regulation increasing demand for low-carbon service offerings in the future, the services we are developing will be increasingly valuable.

- In 2011, the EPA published the Non-Hazardous Secondary Materials ("NHSM") Rule, which provides the standards and procedures for identifying whether NHSM are solid waste under RCRA when used as fuels or ingredients in combustion units. The EPA also published New Source Performance Standards and Emission Guidelines for commercial and industrial solid waste incineration units ("CISWI") and Maximum Achievable Control Technology Standards for commercial and industrial boilers ("Boiler MACT"). The EPA published clarifications and amendments to the three rules in 2013 and legal challenges to the rules were subsequently filed by both industry and environmental groups. In May 2015, the Court of Appeals for the D.C. Circuit upheld the NHSM Rule together with the amendments to the rule that support some of our projects in which we are seeking to convert biomass or other secondary materials into products, fuels or energy. Through rulings in July and December of 2016 related to the CISWI and Boiler MACT challenges, the Court vacated certain elements of those rules while remanding other aspects of the rules to the EPA for reconsideration. We believe the ultimate rules and administrative determinations will not have a material adverse impact on our business as a whole and are more likely to facilitate our efforts to reuse or recover energy value from secondary material streams.
- In December 2014, the EPA issued a final rule regulating the disposal and beneficial use of coal combustion residuals ("CCR"). This codification of the CCR rule provides utilities with a stable regulatory regime and encourages beneficial use of CCR in encapsulated uses (e.g., used in cement or wallboard), and use according to

established industry standards (e.g., application of sludge for agricultural enrichment). The EPA also deemed disposal and beneficial use of CCR at permitted municipal solid waste landfills exempt from the new regulations because the RCRA Subtitle D standards applicable at municipal solid waste landfills provide at least equivalent protection. The new standards are consistent with our approach to handling CCR at our sites currently, and the new standards have provided a growth opportunity for the Company. States may impose standards more stringent than the federal program, and under the 2016 Water Infrastructure Improvements for the Nation Act, may receive approval to run permitting programs for CCR in their states. In 2017, the EPA provided guidance to facilitate approval of state programs.

#### State, Provincial and Local Regulations

There are also various state or provincial and local regulations that affect our operations. Each state and province in which we operate has its own laws and regulations governing solid waste disposal, water and air pollution, and, in most cases, releases and cleanup of hazardous substances and liabilities for such matters. States and provinces have also adopted regulations governing the design, operation, maintenance and closure of landfills and transfer stations. Some counties, municipalities and other local governments have adopted similar laws and regulations. Our facilities and operations are likely to be subject to these types of requirements.

Our landfill operations are affected by the increasing preference for alternatives to landfill disposal. Many state and local governments mandate recycling and waste reduction at the source and prohibit the disposal of certain types of waste, such as yard waste, food waste and electronics at landfills. The number of state and local governments with recycling requirements and disposal bans continues to grow, while the logistics and economics of recycling the items remain challenging.

Various states have enacted, or are considering enacting, laws that restrict the disposal within the state of solid waste generated outside the state. While laws that overtly discriminate against out-of-state waste have been found to be unconstitutional, some laws that are less overtly discriminatory have been upheld in court. From time to time, the U.S. Congress has considered legislation authorizing states to adopt regulations, restrictions, or taxes on the importation of out-of-state or out-of-jurisdiction waste. Additionally, several state and local governments have enacted "flow control" regulations, which attempt to require that all waste generated within the state or local jurisdiction be deposited at specific sites. In 1994, the U.S. Supreme Court ruled that a flow control ordinance that gave preference to a local facility that was privately owned was unconstitutional, but in 2007, the Court ruled that an ordinance directing waste to a facility owned by the local government was constitutional. The U.S. Congress' adoption of legislation allowing restrictions on interstate transportation of out-of-state or out-of-jurisdiction waste or certain types of flow control, or courts' interpretations of interstate waste and flow control legislation, could adversely affect our solid and hazardous waste management services.

Additionally, regulations establishing extended producer responsibility ("EPR") are being considered or implemented in many places around the world, including in the U.S. and Canada. EPR regulations are designed to place either partial or total responsibility on producers to fund the post-use life cycle of the products they create. Along with the funding responsibility, producers may be required to take over management of local recycling programs by taking back their products from end users or managing the collection operations and recycling processing infrastructure. There is no federal law establishing EPR in the U.S. or Canada; however, state, provincial and local governments could take, and in some cases have taken, steps to implement EPR regulations. If wide-ranging EPR regulations were adopted, they could have a fundamental impact on the waste, recycling and other streams we manage and how we operate our business, including contract terms and pricing.

Many states, provinces and local jurisdictions have enacted "fitness" laws that allow the agencies that have jurisdiction over waste services contracts or permits to deny or revoke these contracts or permits based on the applicant's or permit holder's compliance history. Some states, provinces and local jurisdictions go further and consider the compliance history of the parent, subsidiaries or affiliated companies, in addition to the applicant or permit holder. These laws authorize the agencies to make determinations of an applicant's or permit holder's fitness to be awarded a contract to operate, and to deny or revoke a contract or permit because of unfitness, unless there is a showing that the applicant or permit holder has been rehabilitated through the adoption of various operating policies and procedures put in place to assure future compliance with applicable laws and regulations. While fitness laws can present potential increased costs and barriers to

entry into market areas, these laws have not, and are not expected to have a material adverse impact on our business as a whole.

#### Foreign Import and Export Regulations

Enforcement or implementation of foreign and domestic regulations can affect our ability to export products. A significant portion of the fiber that we market is shipped to export markets across the globe, particularly China. In 2013, the Chinese government began to strictly enforce regulations that establish limits on moisture and non-conforming materials that may be contained in imported recycled paper and plastics and restrict the import of certain other plastic recyclables. In 2017, the Chinese government announced a ban on certain materials, including mixed waste paper and mixed plastics, effective January 1, 2018, as well as extremely restrictive quality requirements effective March 1, 2018 that will be difficult for the industry to achieve. Single stream MRFs process a wide range of commingled materials and tend to receive a higher percentage of non-recyclables, which results in increased processing and residual disposal costs to achieve quality standards. Also in 2017, the Chinese government began to limit the flow of material into the country by restricting the issuance of required import licenses. The use of restrictions on import licenses to restrict flow into China is expected to continue in 2018. Additionally, increased container weight tracking and port fees have driven up operating costs in the recycling industry and have resulted in increased price volatility. The current U.S. presidential administration has called for substantial changes to foreign trade policy and has raised the possibility of imposing significant increases in tariffs on international trade. Restrictions and tariffs on exporting would have a significant impact on our recycling operations.

In recent years, we have been revising our service agreements to address increased costs and are working with stakeholders to educate the public on the need to recycle properly. We are investing time and labor and working with customers to help improve quality. However, there is uncertainty about the industry's ability to adapt to the Chinese government's regulations. We have been actively working to identify alternative markets for recycled commodities, but it is possible there may not be sufficient demand for all of the material we produce, resulting in price decreases and volatility. Industry trade organizations and government agencies are engaged in discussions to mitigate long-term impacts to recycling programs and the industry as a whole.

#### Hydraulic Fracturing Regulation

Our EES organization provides specialized environmental management and disposal services for oil and gas exploration and production operations. There remains heightened attention from the public, some states and the EPA on the alleged potential for hydraulic fracturing to impact drinking water supplies. There is also heightened federal regulatory focus on emissions of methane that occur during drilling and transportation of natural gas with regulations promulgated in 2012 and 2015, as well as state attention to protective disposal of drilling residuals. Increased regulation of hydraulic fracturing and new rules regarding the treatment and disposal of wastes associated with exploration and production operations could increase our costs to provide oilfield services and reduce our margins and revenue from such services. On the other hand, we believe the size, capital structure, regulatory sophistication and established reliability of our Company provide us with advantage in providing services that must comply with any complex regulatory regime that may govern providing oilfield waste services.

#### Emissions from Natural Gas Fueling and Infrastructure

We operate a large fleet of natural gas vehicles, and we plan to continue to invest in these assets for our collection fleet. As of December 31, 2017, we were operating 6,525 natural gas trucks and 106 natural gas fueling facilities, of which 101 are in the U.S. and five are in Canadian provinces; 29 of these fueling stations also serve the public or pre-approved third parties. Concerns have been raised about the potential for emissions from the fueling stations and infrastructure that serve natural gas-fueled vehicles. We have partnered with the environmental organization Environmental Defense Fund, as well as other heavy-duty equipment users and experts, on an emissions study to be made available to policy makers. We anticipate that this comprehensive study of emissions from our heavy-duty fleet may ultimately help inform regulations that will affect equipment manufacturers and will define operating procedures across the industry. Additional regulation of, or restrictions on, natural gas fueling infrastructure or reductions in associated tax

incentives could increase our operating costs. We are not yet able to evaluate potential operating changes or costs associated with such regulations, but we do not anticipate that such regulations would have a material adverse impact on our business or our future investment in natural gas vehicles.

#### Federal, State and Local Climate Change Initiatives

In light of regulatory and business developments related to concerns about climate change, we have identified a strategic business opportunity to provide our public and private sector customers with sustainable solutions to reduce their GHG emissions. As part of our on-going marketing evaluations, we assess customer demand for and opportunities to develop waste services offering verifiable carbon reductions, such as waste reduction, increased recycling, and conversion of landfill gas and discarded materials into electricity and fuel. We use carbon life cycle tools in evaluating potential new services and in establishing the value proposition that makes us attractive as an environmental service provider. We are active in support of public policies that encourage development and use of lower carbon energy and waste services that lower users' carbon footprints. We understand the importance of broad stakeholder engagement in these endeavors, and actively seek opportunities for public policy discussion on more sustainable materials management practices. In addition, we work with stakeholders at the federal and state level in support of legislation that encourages production and use of renewable, low-carbon fuels and electricity. Despite the announcement that the U.S. will withdraw from the Paris Climate Accords, we have seen no reduction in customer demand for services aligned with their GHG reduction goals and strategies.

We continue to assess the physical risks to company operations from the effects of severe weather events and use risk mitigation planning to increase our resiliency in the face of such events. We are investing in infrastructure to withstand more severe storm events, which may afford us a competitive advantage and reinforce our reputation as a reliable service provider through continued service in the aftermath of such events.

#### Item 1A. Risk Factors.

In an effort to keep our stockholders and the public informed about our business, we may make "forward-looking statements." Forward-looking statements usually relate to future events and anticipated revenues, earnings, cash flows or other aspects of our operations or operating results. Forward-looking statements are often identified by the words, "will," "may," "should," "continue," "anticipate," "believe," "expect," "plan," "forecast," "project," "estimate," "intend" and words of a similar nature and generally include statements containing:

- projections about accounting and finances;
- plans and objectives for the future;
- projections or estimates about assumptions relating to our performance; or
- our opinions, views or beliefs about the effects of current or future events, circumstances or performance.

You should view these statements with caution. These statements are not guarantees of future performance, circumstances or events. They are based on facts and circumstances known to us as of the date the statements are made. All aspects of our business are subject to uncertainties, risks and other influences, many of which we do not control. Any of these factors, either alone or taken together, could have a material adverse effect on us and could change whether any forward-looking statement ultimately turns out to be true. Additionally, we assume no obligation to update any forward-looking statement as a result of future events, circumstances or developments. The following discussion should be read together with the Consolidated Financial Statements and the notes thereto. Outlined below are some of the risks that we believe could affect our business and financial statements for 2018 and beyond and that could cause actual results to be materially different from those that may be set forth in forward-looking statements made by the Company.

The waste industry is highly competitive, and if we cannot successfully compete in the marketplace, our business, financial condition and operating results may be materially adversely affected.

We encounter intense competition from governmental, quasi-governmental and private sources in all aspects of our operations. In North America, the industry consists primarily of three national waste management companies and regional and local companies of varying sizes and financial resources, including companies that specialize in certain discrete areas of waste management, operators of alternative disposal facilities and companies that seek to use parts of the waste stream as feedstock for renewable energy and other by-products. In recent years, the industry has seen some additional consolidation, though the industry remains intensely competitive. The industry's national and regional competitors are often significant competitors in local markets. We compete with these companies as well as with counties and municipalities that maintain their own waste collection and disposal operations and waste brokers that rely upon haulers in local markets to address customer needs. These counties and municipalities may have financial competitive advantages because tax revenues are available to them and tax-exempt financing is more readily available to them. Also, such governmental units may attempt to impose flow control or other restrictions that would give them a competitive advantage. In addition, some of our competitors may have lower financial expectations, allowing them to reduce their prices to expand sales volume or to win competitively-bid contracts, including large national accounts and exclusive franchise arrangements with municipalities. When this happens, we may lose customers and be unable to execute our pricing strategy, resulting in a negative impact to our revenue growth from yield on base business.

# If we fail to implement our business strategy, our financial performance and our growth could be materially and adversely affected.

Our future financial performance and success are dependent in large part upon our ability to implement our business strategy successfully. Implementation of our strategy will require effective management of our operational, financial and human resources and will place significant demands on those resources. See Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations — Overview for more information on our business strategy.

There are risks involved in pursuing our strategy, including the following:

- Our employees, customers or investors may not embrace and support our strategy.
- We may not be able to hire or retain the personnel necessary to manage our strategy effectively.
- A key element of our strategy is yield management through focus on price leadership, which has presented challenges to keep existing business and win new business at reasonable returns. We have also continued our environmental fee, fuel surcharge and regulatory recovery fee to offset costs. The loss of volumes as a result of price increases and our unwillingness to pursue lower margin volumes may negatively affect our cash flows or results of operations. Additionally, we have in the past and continue to face purported class action lawsuits related to our customer service agreements, prices and fees.
- We may be unsuccessful in implementing improvements to operational efficiency and such efforts may not yield the
  intended result.
- We may not be able to maintain cost savings achieved through restructuring efforts.
- Strategic decisions with respect to our asset portfolio may result in impairments to our assets. See Item 1A. Risk Factors We may record material charges against our earnings due to impairments to our assets.
- Our ability to make strategic acquisitions depends on our ability to identify desirable acquisition targets, negotiate
  advantageous transactions despite competition for such opportunities, fund such acquisitions on favorable terms,
  obtain regulatory approvals and realize the benefits we expect from those transactions.
- Acquisitions, investments and/or new service offerings may not increase our earnings in the timeframe anticipated,
  or at all, due to difficulties operating in new markets or providing new service offerings, failure of emerging
  technologies to perform as expected, failure to operate within budget, integration issues, or regulatory issues, among
  others.

- Integration of acquisitions and/or new services offerings could increase our exposure to the risk of inadvertent noncompliance with applicable laws and regulations.
- Liabilities associated with acquisitions, including ones that may exist only because of past operations of an acquired business, may prove to be more difficult or costly to address than anticipated.
- Execution of our strategy, particularly growth through acquisitions, may cause us to incur substantial additional indebtedness, which may divert capital away from our traditional business operations and other financial plans.
- We continue to seek to divest underperforming and non-strategic assets if we cannot improve their profitability. We
  may not be able to successfully negotiate the divestiture of underperforming and non-strategic operations, which
  could result in asset impairments or the continued operation of low-margin businesses.

In addition to the risks set forth above, implementation of our business strategy could also be affected by a number of factors beyond our control, such as increased competition, legal developments, government regulation, general economic conditions, increased operating costs or expenses and changes in industry trends. We may decide to alter or discontinue certain aspects of our business strategy at any time. If we are not able to implement our business strategy successfully, our long-term growth and profitability may be adversely affected. Even if we are able to implement some or all of the initiatives of our business strategy successfully, our operating results may not improve to the extent we anticipate, or at all.

Compliance with existing or increased future regulations and/or enforcement of such regulations may restrict or change our operations, increase our operating costs or require us to make additional capital expenditures, and a decrease in regulation may lower barriers to entry for our competitors.

Stringent government regulations at the federal, state, provincial and local level in the U.S. and Canada have a substantial impact on our business, and compliance with such regulations is costly. A large number of complex laws, rules, orders and interpretations govern environmental protection, health, safety, land use, zoning, transportation and related matters. Among other things, governmental regulations and enforcement actions may restrict our operations and adversely affect our financial condition, results of operations and cash flows by imposing conditions such as:

- limitations on siting and constructing new waste disposal, transfer, recycling or processing facilities or on expanding existing facilities;
- limitations, regulations or levies on collection and disposal prices, rates and volumes;
- limitations or bans on disposal or transportation of out-of-state waste or certain categories of waste;
- mandates regarding the management of solid waste, including requirements to recycle, divert or otherwise process certain waste, recycling and other streams; or
- limitations or restrictions on the recycling, processing or transformation of waste, recycling and other streams.

Regulations affecting the siting, design and closure of landfills could require us to undertake investigatory or remedial activities, curtail operations or close landfills temporarily or permanently. Future changes in these regulations may require us to modify, supplement or replace equipment or facilities. The costs of complying with these regulations could be substantial.

We also have significant financial obligations relating to final capping, closure, post-closure and environmental remediation at our existing landfills. We establish accruals for these estimated costs, but we could underestimate such accruals because of the types of waste collected and manner in which it is transported and disposed of, including actions taken in the past by companies we have acquired or third-party landfill operators, among other reasons. Environmental regulatory changes could accelerate or increase capping, closure, post-closure and remediation costs, requiring our expenditures to materially exceed our current accruals.

In order to develop, expand or operate a landfill or other waste management facility, we must have various facility permits and other governmental approvals, including those relating to zoning, environmental protection and land use. The

permits and approvals are often difficult, time consuming and costly to obtain and could contain conditions that limit our operations.

Various states have enacted, or are considering enacting, laws that restrict the disposal within the state of solid waste generated outside the state. From time to time, the U.S. Congress has considered legislation authorizing states to adopt regulations, restrictions, or taxes on the importation of out-of-state or out-of-jurisdiction waste. Additionally, several state and local governments have enacted "flow control" regulations, which attempt to require that all waste generated within the state or local jurisdiction be deposited at specific sites. The U.S. Congress' adoption of legislation allowing restrictions on interstate transportation of out-of-state or out-of-jurisdiction waste certain types of flow control, or courts' interpretations of interstate waste and flow control legislation, could adversely affect our solid and hazardous waste management services.

Additionally, regulations establishing extended producer responsibility ("EPR") are being considered or implemented in many places around the world, including in the U.S. and Canada. EPR regulations are designed to place either partial or total responsibility on producers to fund the post-use life cycle of the products they create. Along with the funding responsibility, producers may be required to take over management of local recycling programs by taking back their products from end users or managing the collection operations and recycling processing infrastructure. There is no federal law establishing EPR in the U.S. or Canada; however, state, provincial and local governments could, and in some cases have, taken steps to implement EPR regulations. If wide-ranging EPR regulations were adopted, they could have a fundamental impact on the waste streams we manage and how we operate our business, including contract terms and pricing. A significant reduction in the waste, recycling and other streams we manage could have a material adverse effect on our financial condition, results of operations and cash flows.

In recent years, we perceived an increase in both the amount of government regulation and the number of enforcement actions being brought by regulatory entities against operations in the waste services industry. The current U.S. presidential administration has called for substantial changes to foreign trade policy and has generally appeared to be in favor of reducing regulation, including environmental regulation. We cannot predict what impact the current administration will have on the political and regulatory environment in the U.S., the timing of any such changes, or the impact of any such changes on our business. Reduction of regulation may have a favorable impact on our operating costs, but the extensive environmental regulation applicable to landfills is a substantial barrier to entry that benefits our Company. Moreover, the risk reduction provided by stringent regulation is valuable to our customers and the communities we serve. It is likely that some policies adopted by the current administration will benefit us and others will negatively affect us.

Our revenues, earnings and cash flows will fluctuate based on changes in commodity prices, and commodity prices for recyclable materials are particularly susceptible to volatility based on regulations that affect our ability to export products.

Our recycling operations process for sale certain recyclable materials, including fibers, aluminum and plastics, which are subject to significant market price fluctuations. The majority of the recyclables that we process for sale are paper fibers, including old corrugated cardboard and old newsprint, and a significant portion of the fiber that we market is shipped to export markets across the globe, particularly China. In 2013, the Chinese government began to strictly enforce regulations that establish limits on moisture and non-conforming materials that may be contained in imported recycled paper and plastics and restrict the import of certain other plastic recyclables. In 2017, the Chinese government announced a ban on certain materials, including mixed waste paper and mixed plastics, effective January 1, 2018, as well as extremely restrictive quality requirements effective March 1, 2018 that will be difficult for the industry to achieve. Single stream MRFs process a wide range of commingled materials and tend to receive a higher percentage of non-recyclables, which results in increased processing and residual disposal costs to achieve quality standards. Also in 2017, the Chinese government began to limit the flow of material into the country by restricting the issuance of required import licenses. The use of restrictions on import licenses to restrict flow into China is expected to continue in 2018.

There is uncertainty about the industry's ability to adapt to the Chinese government's regulations. We have been actively working to identify alternative markets for recycled commodities, but it is possible there may not be sufficient demand for all of the material we produce, resulting in price decreases and increased volatility. The fluctuations in the market prices or demand for these commodities can affect our operating income and cash flows positively, as we

experienced in 2017 and 2016, or negatively, as we experienced in 2015. As we have increased the size of our recycling operations, we have also increased our exposure to commodity price fluctuations.

The increase in market prices in 2017 and 2016 for commodities resulted in increases in revenue of \$237 million and \$51 million, respectively. The decline in market prices in 2015 for commodities resulted in a decrease in revenue of \$138 million. Additionally, under some agreements, our recycling operations are required to pay rebates to suppliers. In some cases, if we experience higher revenues based on increased market prices for recycling commodities, the rebates we pay will also increase. In other circumstances, the rebates may be subject to a floor, such that as market prices decrease, any expected profit margins on materials subject to the rebate floor are reduced or eliminated. As we work to revise service agreements to mitigate the impact of commodity price fluctuations, the potential increase in the cost for recycling services may make it more difficult for us to win bids and may slow the growth of recycling overall. If the Chinese government's regulations, or other similar regulations or initiatives, such as increased container weight tracking and port fees or restrictions and tariffs on exporting, result in reduced demand or increased operating costs, such regulations, initiatives, restrictions and tariffs could have a material adverse effect on the profitability of our recycling operations.

Fluctuation in energy prices also affects our business, including recycling of plastics manufactured from petroleum products. Significant variations in the price of methane gas, electricity and other energy-related products that are marketed and sold by our landfill gas recovery operations can result in a corresponding significant impact to our revenue from yield from such operations. Additionally, we provide specialized disposal services for oil and gas exploration and production operations through our EES organization. Demand for these services decreases when drilling activity slows due to depressed oil and gas prices, such as the low prices throughout the last few years. Any of the commodity prices to which we are subject may fluctuate substantially and without notice in the future.

#### Changes in regulations applicable to oil and gas drilling and production could adversely affect our EES organization.

EES organization demand may also be adversely affected if drilling activity slows due to industry conditions beyond our control, in addition to changes in oil and gas prices. Changes in laws or government regulations regarding GHG emissions from oil and gas operations and/or hydraulic fracturing could increase our customers' costs of doing business and reduce oil and gas exploration and production by customers. There remains heightened attention from the public, some states and the EPA to the alleged potential for hydraulic fracturing to impact drinking water supplies. There is also heightened federal regulatory focus on emissions of methane that occur during drilling and transportation of natural gas with regulations promulgated in 2012 and 2015 as well as state attention to protective disposal of drilling residuals. Increased regulation of oil and gas exploration and production and new rules regarding the treatment and disposal of wastes associated with exploration and production operations could increase our costs to provide oilfield services and reduce our margins and revenue from such services.

# Increasing customer preference for alternatives to landfill disposal could reduce our landfill volumes and cause our revenues and operating results to decline.

Our customers are increasingly diverting waste to alternatives to landfill disposal, such as recycling and composting, while also working to reduce the amount of waste they generate. In addition, many state and local governments mandate diversion, recycling and waste reduction at the source and prohibit the disposal of certain types of waste, such as yard waste, food waste and electronics at landfills. Where such organic waste is not banned from the landfill, some large customers such as grocery stores and restaurants are choosing to divert their organic waste from landfills. Zero-waste goals (sending no waste to the landfill) have been set by many of North America's largest companies. Although such mandates and initiatives help to protect our environment, these developments reduce the volume of waste going to our landfills which may affect the prices that we can charge for landfill disposal. Our landfills currently provide our highest income from operations margins. If we are not successful in expanding our service offerings and growing lines of businesses to service waste streams that do not go to landfills and to provide services for customers that wish to reduce waste entirely, then our revenues and operating results may decline. Additionally, despite the development of new service offerings and lines of business, it is possible that our revenues and our income from operations margins could be negatively affected due to disposal alternatives.

Developments in technology could trigger a fundamental change in the waste management industry, as waste streams are increasingly viewed as a resource, which may adversely impact volumes at our landfills and our profitability.

Our Company and others have recognized the value of the traditional waste stream as a potential resource. Research and development activities are on-going to provide disposal alternatives that maximize the value of waste, including using waste as a source for renewable energy and other valuable by-products. We and many other companies are investing in these technologies. It is possible that such investments and technological advancements may reduce the cost of waste disposal or the value of landfill gas recovery to a level below our costs and may reduce the demand for landfill space. As a result, our revenues and margins could be adversely affected due to advancements in disposal alternatives.

If we are not able to develop new service offerings and protect intellectual property, or if a competitor develops or obtains exclusive rights to a breakthrough technology, our financial results may suffer.

Our existing and proposed service offerings to customers may require that we invest in, develop or license, and protect new technologies. Research and development of new technologies and investment in emerging technologies often requires significant spending that may divert capital investment away from our traditional business operations. We may experience difficulties or delays in the research, development, production and/or marketing of new products and services or emerging technologies in which we have invested, which may negatively impact our operating results and prevent us from recouping or realizing a return on the investments required to bring new products and services to market. Further, protecting our intellectual property rights and combating unlicensed copying and use of intellectual property is difficult, and any inability to obtain or protect new technologies could impact our services to customers and development of new revenue sources. Our Company and others are increasingly focusing on new technologies that provide alternatives to traditional disposal and maximize the resource value of waste. If a competitor develops or obtains exclusive rights to a "breakthrough technology" that provides a revolutionary change in traditional waste management, or if we have inferior intellectual property to our competitors, our financial results may suffer.

#### Our business depends on our reputation and the value of our brand.

We believe we have developed a reputation for high-quality service, reliability and social and environmental responsibility, and we believe our brand symbolizes these attributes. The Waste Management brand name, trademarks and logos and our reputation are powerful sales and marketing tools, and we devote significant resources to promoting and protecting them. Adverse publicity, whether or not justified, relating to activities by our operations, employees or agents could tarnish our reputation and reduce the value of our brand. Damage to our reputation and loss of brand equity could reduce demand for our services. This reduction in demand, together with the dedication of time and expense necessary to defend our reputation, could have an adverse effect on our financial condition, liquidity and results of operations, as well as require additional resources to rebuild our reputation and restore the value of our brand.

# Our operations are subject to environmental, health and safety laws and regulations, as well as contractual obligations that may result in significant liabilities.

There is risk of incurring significant environmental liabilities in the use, treatment, storage, transfer and disposal of waste materials. Under applicable environmental laws and regulations, we could be liable if our operations cause environmental damage to our properties or to the property of other landowners, particularly as a result of the contamination of air, drinking water or soil. Under current law, we could also be held liable for damage caused by conditions that existed before we acquired the assets or operations involved. This risk is of particular concern as we execute our growth strategy, partially though acquisitions, because we may be unsuccessful in identifying and assessing potential liabilities during our due diligence investigations. Further, the counterparties in such transactions may be unable to perform their indemnification obligations owed to us. Additionally, we could be liable if we arrange for the transportation, disposal or treatment of hazardous substances that cause environmental contamination, or if a predecessor owner made such arrangements and, under applicable law, we are treated as a successor to the prior owner. Any substantial liability for environmental damage could have a material adverse effect on our financial condition, results of operations and cash flows.

In the ordinary course of our business, we have in the past, we are currently, and we may in the future, become involved in legal and administrative proceedings relating to land use and environmental laws and regulations. These include proceedings in which:

- agencies of federal, state, local or foreign governments seek to impose liability on us under applicable statutes, sometimes involving civil or criminal penalties for violations, or to revoke or deny renewal of a permit we need; and
- local communities, citizen groups, landowners or governmental agencies oppose the issuance of a permit or
  approval we need, allege violations of the permits under which we operate or laws or regulations to which we are
  subject, or seek to impose liability on us for environmental damage.

We generally seek to work with the authorities or other persons involved in these proceedings to resolve any issues raised. If we are not successful, the adverse outcome of one or more of these proceedings could result in, among other things, material increases in our costs or liabilities as well as material charges for asset impairments.

Further, we often enter into agreements with landowners imposing obligations on us to meet certain regulatory or contractual conditions upon site closure or upon termination of the agreements. Compliance with these agreements inherently involves subjective determinations and may result in disputes, including litigation. Costs to remediate or restore the condition of closed sites may be significant.

#### General economic conditions can directly and adversely affect our revenues and our income from operations margins.

Our business is directly affected by changes in national and general economic factors that are outside of our control, including consumer confidence, interest rates and access to capital markets. A weak economy generally results in decreased consumer spending and decreases in volumes of waste generated, which decreases our revenues. A weak market for consumer goods can significantly decrease demand by paper mills for recycled corrugated cardboard used in packaging; such decrease in demand can negatively impact commodity prices and our operating income and cash flows. In addition, we have a relatively high fixed-cost structure, which is difficult to quickly adjust to match shifting volume levels. Consumer uncertainty and the loss of consumer confidence may limit the number or amount of services requested by customers. Economic conditions may also limit our ability to implement our pricing strategy. For example, many of our contracts have price adjustment provisions that are tied to an index such as the Consumer Price Index, and our costs may increase in excess of the increase, if any, in the Consumer Price Index. Additionally, a prolonged economic downturn in China could significantly impact prices for post-consumer fiber and metals processed by our recycling operations.

# Some of our customers, including governmental entities, have suffered financial difficulties affecting their credit risk, which could negatively impact our operating results.

We provide service to a number of governmental entities and municipalities, some of which have suffered significant financial difficulties in recent years, due in part to reduced tax revenue and/or high cost structures. Some of these entities could be unable to pay amounts owed to us or renew contracts with us at previous or increased rates.

Many non-governmental customers have also suffered serious financial difficulties, including bankruptcy in some cases. Purchasers of our recycling commodities can be particularly vulnerable to financial difficulties in times of commodity price volatility. The inability of our customers to pay us in a timely manner or to pay increased rates, particularly large national accounts, could negatively affect our operating results.

In addition, the financial difficulties of municipalities could result in a decline in investors' demand for municipal bonds and a correlating increase in interest rates. As of December 31, 2017, we had \$831 million of tax-exempt bonds with term interest rate periods that expire within the next 12 months and \$328 million of variable-rate tax-exempt bonds with interest rates reset on either a daily or a weekly basis through a remarketing process, which is prior to their scheduled maturities. If market dynamics resulted in repricing of our tax-exempt bonds at significantly higher interest rates, we would incur increased interest expenses that may negatively affect our operating results and cash flows.

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

Our ability to meet our financial and operating objectives depends in part on our ability to obtain and maintain the permits necessary to operate landfill sites. Permits to build, operate and expand solid waste management facilities, including landfills and transfer stations, have become more difficult and expensive to obtain and maintain. Permits often take years to obtain as a result of numerous hearings and compliance requirements with regard to zoning, environmental and other regulations. These permits are also often subject to resistance from citizen or other groups and other political pressures. Local communities and citizen groups, adjacent landowners or governmental agencies may oppose the issuance of a permit or approval we may need, allege violations of the permits under which we currently operate or laws or regulations to which we are subject, or seek to impose liability on us for environmental damage. Responding to these challenges has, at times, increased our costs and extended the time associated with establishing new facilities and expanding existing facilities. In addition, failure to receive regulatory and zoning approval may prohibit us from establishing new facilities or expanding existing facilities. Our failure to obtain the required permits to operate our landfills could have a material adverse impact on our financial condition, results of operations and cash flows.

#### Significant shortages in diesel fuel supply or increases in diesel fuel prices will increase our operating expenses.

The price and supply of diesel fuel can fluctuate significantly based on international, political and economic circumstances, as well as other factors outside our control, such as actions by the Organization of the Petroleum Exporting Countries ("OPEC") and other oil and gas producers, regional production patterns, weather conditions and environmental concerns. We need diesel fuel to run a significant portion of our collection and transfer trucks and our equipment used in our landfill operations. Supply shortages could substantially increase our operating expenses. Additionally, if fuel prices increase, our direct operating expenses increase and many of our vendors raise their prices as a means to offset their own rising costs. We have in place a fuel surcharge program, designed to offset increased fuel expenses; however, we may not be able to pass through all of our increased costs and some customers' contracts prohibit any pass-through of the increased costs. Additionally, lawsuits have challenged our fuel and environmental charges included on our invoices. Regardless of any offsetting surcharge programs, increased operating costs due to higher diesel fuel prices will decrease our income from operations margins.

# We have an extensive natural gas truck fleet, which makes us partially dependent on the availability of natural gas and fueling infrastructure and vulnerable to natural gas prices.

We operate a large fleet of natural gas vehicles, and we plan to continue to invest in these assets for our collection fleet. However, natural gas fueling infrastructure is not yet broadly available in North America; as a result, we have constructed and operate natural gas fueling stations, some of which also serve the public or pre-approved third parties. It will remain necessary for us to invest capital in fueling infrastructure in order to power our natural gas fleet. Concerns have been raised about the potential for emissions from fueling infrastructure that serve natural gas-fueled vehicles. New regulation of, or restrictions on, natural gas fueling infrastructure or reductions in associated tax incentives could increase our operating costs. Additionally, fluctuations in the price and supply of natural gas could substantially increase our operating expenses, and a reduction in the existing cost differential between natural gas and diesel fuel could materially reduce the benefits we anticipate from our investment in natural gas vehicles. Further, our fuel surcharge program is currently indexed to diesel fuel prices, and price fluctuations for natural gas may not effectively be recovered by this program.

# We are increasingly dependent on technology in our operations and if our technology fails, our business could be adversely affected.

We may experience problems with the operation of our current information technology systems or the technology systems of third parties on which we rely, as well as the development and deployment of new information technology systems, that could adversely affect, or even temporarily disrupt, all or a portion of our operations until resolved. Inabilities and delays in implementing new systems can also affect our ability to realize projected or expected cost savings.

Additionally, any systems failures could impede our ability to timely collect and report financial results in accordance with applicable laws and regulations.

## A cybersecurity incident could negatively impact our business and our relationships with customers and expose us to litigation risk.

We use computers in substantially all aspects of our business operations. We also use mobile devices, social networking and other online activities to connect with our employees and our customers. Such uses give rise to cybersecurity risks, including security breach, espionage, system disruption, theft and inadvertent release of information. Our business involves the storage and transmission of numerous classes of sensitive and/or confidential information and intellectual property, including customers' personal information, private information about employees, and financial and strategic information about the Company and its business partners. We also rely on a Payment Card Industry compliant third party to protect our customers' credit card information. Further, as the Company pursues its strategy to grow through acquisitions and to pursue new initiatives that improve our operations and cost structure, the Company is also expanding and improving its information technologies, resulting in a larger technological presence and corresponding exposure to cybersecurity risk. If we fail to assess and identify cybersecurity risks associated with acquisitions and new initiatives, we may become increasingly vulnerable to such risks. Additionally, while we have implemented measures to prevent security breaches and cyber incidents, our preventative measures and incident response efforts may not be entirely effective. The theft, destruction, loss, misappropriation, or release of sensitive and/or confidential information or intellectual property, or interference with our information technology systems or the technology systems of third parties on which we rely, could result in business disruption, negative publicity, brand damage, violation of privacy laws, loss of customers, potential litigation and liability and competitive disadvantage.

## Our operating expenses could increase as a result of labor unions organizing or changes in regulations related to labor unions

Labor unions continually attempt to organize our employees, and these efforts will likely continue in the future. Certain groups of our employees are currently represented by unions, and we have negotiated collective bargaining agreements with these unions. Additional groups of employees may seek union representation in the future, and, if successful, would enhance organized labor's leverage to obtain higher than expected wage and benefits costs and resist the introduction of new technology and other initiatives, which can result in increased operating expenses and lower net income. If we are unable to negotiate acceptable collective bargaining agreements, our operating expenses could increase significantly as a result of work stoppages, including strikes. Any of these matters could adversely affect our financial condition, results of operations and cash flows.

#### We could face significant liabilities for withdrawal from Multiemployer Pension Plans.

We are a participating employer in a number of trustee-managed multiemployer defined benefit pension plans ("Multiemployer Pension Plans") for employees who are covered by collective bargaining agreements. In the event of our withdrawal from a Multiemployer Pension Plan, we may incur expenses associated with our obligations for unfunded vested benefits at the time of the withdrawal. Depending on various factors, future withdrawals could have a material adverse effect on results of operations or cash flows for a particular reporting period. We have previously withdrawn several employee bargaining units from underfunded Multiemployer Pension Plans, and we recognized related expenses of \$12 million and \$51 million in 2017 and 2015, respectively. In 2016, we did not recognize any charges for the withdrawal from Multiemployer Pension Plans. See Notes 9 and 10 to the Consolidated Financial Statements for more information related to our participation in Multiemployer Pension Plans.

### Our business is subject to operational and safety risks, including the risk of personal injury to employees and others.

Providing environmental and waste management services, including constructing and operating landfills, involves risks such as truck accidents, equipment defects, malfunctions and failures. Additionally, we closely monitor and manage landfills to minimize the risk of waste mass instability, releases of hazardous materials, and odors that could be triggered by weather or natural disasters. There may also be risks presented by the potential for subsurface heat reactions causing

elevated landfill temperatures and increased production of leachate, landfill gas and odors. We also build and operate natural gas fueling stations, some of which also serve the public or third parties. Operation of fueling stations and landfill gas collection and control systems involves additional risks of fire and explosion. Any of these risks could potentially result in injury or death of employees and others, a need to shut down or reduce operation of facilities, increased operating expense and exposure to liability for pollution and other environmental damage, and property damage or destruction.

While we seek to minimize our exposure to such risks through comprehensive training, compliance and response and recovery programs, as well as vehicle and equipment maintenance programs, if we were to incur substantial liabilities in excess of any applicable insurance, our business, results of operations and financial condition could be adversely affected. Any such incidents could also tarnish our reputation and reduce the value of our brand. Additionally, a major operational failure, even if suffered by a competitor, may bring enhanced scrutiny and regulation of our industry, with a corresponding increase in operating expense.

We have substantial financial assurance and insurance requirements, and increases in the costs of obtaining adequate financial assurance, or the inadequacy of our insurance coverages, could negatively impact our liquidity and increase our liabilities.

The amount of insurance we are required to maintain for environmental liability is governed by statutory requirements. We believe that the cost for such insurance is high relative to the coverage it would provide and, therefore, our coverages are generally maintained at the minimum statutorily-required levels. We face the risk of incurring additional costs for environmental damage if our insurance coverage is ultimately inadequate to cover those damages. We also carry a broad range of other insurance coverages that are customary for a company our size. We use these programs to mitigate risk of loss, thereby enabling us to manage our self-insurance exposure associated with claims. The inability of our insurers to meet their commitments in a timely manner and the effect of significant claims or litigation against insurance companies may subject us to additional risks. To the extent our insurers are unable to meet their obligations, or our own obligations for claims are more than we estimated, there could be a material adverse effect to our financial results.

In addition, to fulfill our financial assurance obligations with respect to variable-rate tax-exempt debt, final capping, closure, post-closure and environmental remediation obligations, we generally obtain letters of credit or surety bonds, rely on insurance, including captive insurance, fund trust and escrow accounts or rely upon WM financial guarantees. We currently have in place all financial assurance instruments necessary for our operations. Our financial position, which can be negatively affected by asset impairments, our credit profile and general economic factors, may adversely affect the cost of our current financial assurance instruments, and changes in regulations may impose stricter requirements on the types of financial assurance that will be accepted. Additionally, in the event we are unable to obtain sufficient surety bonding, letters of credit or third-party insurance coverage at reasonable cost, or one or more states cease to view captive insurance as adequate coverage, we would need to rely on other forms of financial assurance. It is possible that we could be forced to deposit cash to collateralize our obligations. Other forms of financial assurance could be more expensive to obtain, and any requirements to use cash to support our obligations would negatively impact our liquidity and capital resources and could affect our ability to meet our obligations as they become due.

### We may record material charges against our earnings due to impairments to our assets.

In accordance with U.S. Generally Accepted Accounting Principles ("GAAP"), we capitalize certain expenditures and advances relating to disposal site development, expansion projects, acquisitions, software development costs and other projects. Events that could, in some circumstances, lead to an impairment include, but are not limited to, shutting down a facility or operation or abandoning a development project or the denial of an expansion permit. Additionally, declining waste volumes and development of, and customer preference for, alternatives to traditional waste disposal could warrant asset impairments. If we determine an asset or expansion project is impaired, we will charge against earnings any unamortized capitalized expenditures and advances relating to such asset or project reduced by any portion of the capitalized costs that we estimate will be recoverable, through sale or otherwise. We also carry a significant amount of goodwill on our Consolidated Balance Sheets, which is required to be assessed for impairment annually, and more frequently in the case of certain triggering events. We may be required to incur charges against earnings if such impairment tests indicate that the fair value of a reporting unit is below its carrying amount. Any such charges could have a material adverse effect on our results of operations.

Our capital requirements and our business strategy could increase our expenses, cause us to change our growth and development plans, or result in an inability to maintain our desired credit profile.

If economic conditions or other risks and uncertainties cause a significant reduction in our cash flows from operations, we may reduce or suspend capital expenditures, growth and acquisition activity, implementation of our business strategy, dividend declarations or share repurchases. We may choose to incur indebtedness to pay for these activities, although our access to capital markets is not assured and we may not be able to incur indebtedness at a cost that is consistent with current borrowing rates. We also may need to incur indebtedness to refinance scheduled debt maturities, and it is possible that the cost of financing could increase significantly, thereby increasing our expenses and decreasing our net income. Further, our ability to execute our financial strategy and our ability to incur indebtedness is somewhat dependent upon our ability to maintain investment grade credit ratings on our senior debt. The credit rating process is contingent upon our credit profile, as well as a number of other factors, many of which are beyond our control, including methodologies established and interpreted by third-party rating agencies. If we were unable to maintain our investment grade credit ratings in the future, our interest expense would increase and our ability to obtain financing on favorable terms could be adversely affected.

Additionally, we have \$1.8 billion of debt as of December 31, 2017 that is exposed to changes in market interest rates within the next 12 months because of the combined impact of our tax-exempt bonds and outstanding borrowings under our commercial paper program and our Canadian term loan. If interest rates increase, our interest expense would also increase, lowering our net income and decreasing our cash flow.

We may use our \$2.25 billion revolving credit facility and our C\$50 million Canadian revolving credit facility ("Canadian revolving credit facility") to meet our cash needs, to the extent available, until maturity in July 2020 and March 2019, respectively. As of December 31, 2017, we had \$642 million of letters of credit issued and \$515 million of outstanding borrowings under our commercial paper program both supported by our \$2.25 billion revolving credit facility, leaving unused and available credit capacity of \$1,093 million, and we had no outstanding borrowings under both our \$2.25 billion revolving credit facility and Canadian revolving credit facility. In the event of a default under our credit facilities, we could be required to immediately repay all outstanding borrowings and make cash deposits as collateral for all obligations the facility supports, which we may not be able to do. Additionally, any such default could cause a default under many of our other credit agreements and debt instruments. Without waivers from lenders party to those agreements, any such default would have a material adverse effect on our ability to continue to operate.

# The adoption of climate change legislation or regulations restricting emissions of "greenhouse gases" could increase our costs to operate.

Our landfill operations emit methane, identified as a GHG. There are a number of legislative and regulatory efforts at the state, regional and federal levels to curtail the emission of GHGs to ameliorate the effect of climate change. Should comprehensive federal climate change legislation be enacted, we expect it could impose costs on our operations that might not be offset by the revenue increases associated with our lower-carbon service options, the materiality of which we cannot predict. In 2010, the EPA published a Prevention of Significant Deterioration and Title V GHG Tailoring Rule, which expanded the EPA's federal air permitting authority to include the six GHGs. The rule sets new thresholds for GHG emissions that define when Clean Air Act permits are required. The current requirements of these rules have not significantly affected our operations or cash flows, due to the tailored thresholds and exclusions of certain emissions from regulation. However, if certain changes to these regulations were enacted, such as lowering the thresholds or the inclusion of biogenic emissions, then the amendments could have an adverse effect on our operating costs.

# The seasonal nature of our business, severe weather events and event driven special projects cause our results to fluctuate, and prior performance is not necessarily indicative of our future results.

Our operating revenues tend to be somewhat higher in summer months, primarily due to the higher construction and demolition waste volumes. The volumes of industrial and residential waste in certain regions where we operate also tend to increase during the summer months. Our second and third quarter revenues and results of operations typically reflect these seasonal trends.

Service disruptions caused by severe storms, extended periods of inclement weather or climate extremes resulting from climate change can significantly affect the operating results of the Areas affected. On the other hand, certain destructive weather conditions that tend to occur during the second half of the year, such as the hurricanes that most often impact our operations in the Southern and Eastern U.S., can increase our revenues in the Areas affected. While weather-related and other event driven special projects can boost revenues through additional work for a limited time, as a result of significant start-up costs and other factors, such revenue can generate earnings at comparatively lower margins.

For these and other reasons, operating results in any interim period are not necessarily indicative of operating results for an entire year, and operating results for any historical period are not necessarily indicative of operating results for a future period. Our stock price may be negatively impacted by interim variations in our results.

We could be subject to significant fines and penalties, and our reputation could be adversely affected, if our businesses, or third parties with whom we have a relationship, were to fail to comply with U.S. or foreign laws or regulations.

Some of our projects and new business may be conducted in countries where corruption has historically been prevalent. It is our policy to comply with all applicable anti-bribery laws, such as the U.S. Foreign Corrupt Practices Act, and with applicable local laws of the foreign countries in which we operate, and we monitor our local partners' compliance with such laws as well. Our reputation may be adversely affected if we were reported to be associated with corrupt practices or if we or our local partners failed to comply with such laws. Such damage to our reputation could adversely affect our ability to grow our business. Additionally, violations of such laws could subject us to significant fines and penalties.

Currently pending or future litigation or governmental proceedings could result in material adverse consequences, including judgments or settlements.

From time to time we are involved in governmental proceedings relating to the conduct of our business. We are also party to civil litigation. As a large company with operations across the U.S. and Canada, we are subject to various proceedings, lawsuits, disputes and claims arising in the ordinary course of our business. Actions that have been filed against us, and that may be filed against us in the future, include personal injury, property damage, commercial, customer, and employment-related claims, including purported state and national class action lawsuits related to:

- alleged environmental contamination, including releases of hazardous materials and odors;
- sales and marketing practices, customer service agreements, prices and fees; and
- federal and state wage and hour and other laws.

The timing of the final resolutions to these types of matters is often uncertain. Additionally, the possible outcomes or resolutions to these matters could include adverse judgments or settlements, either of which could require substantial payments, adversely affecting our liquidity.

We may experience adverse impacts on our reported results of operations as a result of adopting new accounting standards or interpretations.

Our implementation of and compliance with changes in accounting rules, including new accounting rules and interpretations, could adversely affect our reported financial position or operating results or cause unanticipated fluctuations in our reported operating results in future periods.

#### Item 1B. Unresolved Staff Comments.

None.

#### Item 2. Properties.

Our principal executive offices are in Houston, Texas, where we occupy approximately 345,000 square feet under leases expiring through 2020. We also have administrative offices in Arizona, Illinois, Connecticut and India. We own or lease real property in most locations where we have operations or administrative functions. We have operations in all 50 states, the District of Columbia and throughout Canada.

Our principal property and equipment consists of land (primarily landfills and other disposal facilities, transfer stations and bases for collection operations), buildings, vehicles and equipment. We believe that our operating properties, vehicles and equipment are adequately maintained and sufficient for our current operations. However, we expect to continue to make investments in additional property and equipment for expansion, for replacement of assets and to support our strategy of continuous improvement through efficiency and innovation. For more information, see Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations included within this report.

The following table summarizes our various operations as of December 31:

	2017	2016
Landfills owned or operated (a)	249	248
Transfer stations	305	310
Material recovery facilities	90	95

(a) As of December 31, 2017 and 2016, our landfills owned or operated consisted of total acreage of 156,784 and 158,054; permitted acreage of 42,590 and 42,182; and expansion acreage of 821 and 905, respectively. Total acreage includes permitted acreage, expansion acreage, other acreage available for future disposal that has not been permitted, buffer land and other land. Permitted acreage consists of all acreage at the landfill encompassed by an active permit to dispose of waste. Expansion acreage consists of unpermitted acreage where the related expansion efforts meet our criteria to be included as expansion airspace. A discussion of the related criteria is included within Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations — Critical Accounting Estimates and Assumptions included within this report.

#### Item 3. Legal Proceedings.

Information regarding our legal proceedings can be found under the *Environmental Matters* and *Litigation* sections of Note 10 to the Consolidated Financial Statements included within this report.

#### Item 4. Mine Safety Disclosures.

Information concerning mine safety and other regulatory matters required by Section 1503(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 104 of Regulation S-K is included in Exhibit 95 to this annual report.

### PART II

### Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

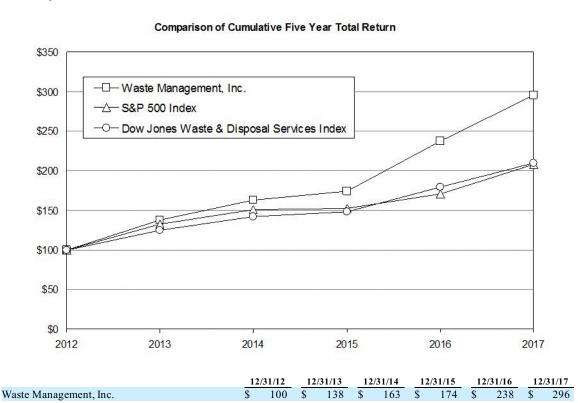
Our common stock is traded on the New York Stock Exchange ("NYSE") under the symbol "WM." The following table sets forth the range of the high and low per share sales prices for our common stock as reported on the NYSE:

	High		Low
2016			
First Quarter	\$ 59.99	\$	50.36
Second Quarter	66.27		56.06
Third Quarter	70.49		62.42
Fourth Quarter	71.71		61.09
2017			
First Quarter	\$ 73.90	\$	69.00
Second Quarter	74.57		70.10
Third Quarter	78.80		73.18
Fourth Quarter	86.89		75.87
2018			
First Quarter (through February 8, 2018)	\$ 89.73	\$	78.89

On February 8, 2018, the closing sales price as reported on the NYSE was \$79.12 per share. The number of holders of record of our common stock on February 8, 2018 was 9,248.

2015, or \$1.54 per common share.

The graph below shows the relative investment performance of Waste Management, Inc. common stock, the S&P 500 Index and the Dow Jones Waste & Disposal Services Index for the last five years, assuming reinvestment of dividends at date of payment into the common stock. The graph is presented pursuant to SEC rules and is not meant to be an indication of our future performance.



S&P 500 Index 100 \$ 132 \$ 151 153 \$ 171 208 Dow Jones Waste & Disposal Services Index \$ 100 125 \$ 142 148 179 \$ 210 Our quarterly dividends have been declared by our Board of Directors. Cash dividends declared and paid were

\$750 million in 2017, or \$1.70 per common share, \$726 million in 2016, or \$1.64 per common share, and \$695 million in

In December 2017, we announced that our Board of Directors expects to increase the quarterly dividend from \$0.425 to \$0.465 per share for dividends declared in 2018. However, all future dividend declarations are at the discretion of the Board of Directors and depend on various factors, including our net earnings, financial condition, cash required for future business plans and other factors the Board of Directors may deem relevant.

The Company repurchases shares of its common stock as part of capital allocation programs authorized by our Board of Directors. We announced in December 2016 that the Board of Directors authorized up to \$750 million in future share repurchases. During 2017, we repurchased an aggregate of \$750 million of our common stock under accelerated share repurchase ("ASR") agreements. We received a total of 9.7 million shares pursuant to these ASR agreements with a weighted average per share purchase price of \$77.67. See Note 13 to the Consolidated Financial Statements for additional information.

The following table summarizes common stock repurchases made during the fourth quarter of 2017 (shares in millions):

#### **Issuer Purchases of Equity Securities**

	Total Number of Shares	Average Price Paid	Total Number of Shares Purchased as Part of Publicly Announced Plans or	Dollar Value of Shares that May Yet be Purchased Unde		
Period	Purchased	per Share	Programs	the Plans	or Programs	
October 1 — 31		\$ —	_	\$	_	
November 1 — 30	_	\$ —	_	\$	_	
December 1 — 31	1.0 (a)	\$ 79.47 (a)	1.0 (a)	\$	1.25 billion (b)	
Total	1.0	\$ 79.47	1.0			

- (a) In August 2017, we entered into an ASR agreement to repurchase \$500 million of our common stock, and the "Average Price Paid per Share" in the table above is the final weighted average per share purchase price paid for all shares repurchased pursuant to the ASR agreement. At the beginning of the repurchase period, we delivered \$500 million in cash and received 5.3 million shares based on a stock price of \$75.25 per share. The ASR agreement completed in December 2017, at which time we received 1.0 million additional shares.
- (b) We announced in December 2017 that the Board of Directors has authorized up to \$1.25 billion in future share repurchases.

Any future share repurchases will be made at the discretion of management and will depend on factors similar to those considered by the Board of Directors in making dividend declarations.

#### Item 6. Selected Financial Data.

The information below was derived from the audited Consolidated Financial Statements included within this report and in previous annual reports we filed with the SEC. This information should be read together with those Consolidated Financial Statements and the notes thereto. These historical results are not necessarily indicative of the results to be expected in the future.

	Years Ended December 31,					
	2017(a)	2016(a)	2015(a)	2014	2013	
	(In Millions, Except per Share Amounts)					
Statement of Operations Data:						
Operating revenues	\$ 14,485	\$ 13,609	\$ 12,961	\$ 13,996	\$ 13,983	
Consolidated net income	1,949	1,180	752	1,338	130	
Net income attributable to Waste Management, Inc.	1,949	1,182	753	1,298	98	
Basic earnings per common share	4.44	2.66	1.66	2.80	0.21	
Diluted earnings per common share	4.41	2.65	1.65	2.79	0.21	
Cash dividends declared per common share	1.70	1.64	1.54	1.50	1.46	
Balance Sheet Data:						
Working capital (deficit)	\$ (638)	\$ (418)	\$ (165)	\$ 41	\$ (628)	
Total assets	21,829	20,859	20,367	21,252	22,441	
Long-term debt, including current portion	9,491	9,310	8,929	9,390	10,177	
Total Waste Management, Inc. stockholders' equity	6,019	5,297	5,345	5,866	5,707	
Total equity	6,042	5,320	5,367	5,889	6,002	

<sup>(</sup>a) For more information see Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

#### Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

This section includes a discussion of our results of operations for the three years ended December 31, 2017. This discussion may contain forward-looking statements that anticipate results based on management's plans that are subject to uncertainty. We discuss in more detail various factors that could cause actual results to differ materially from expectations in Item 1A. *Risk Factors*. The following discussion should be read considering those disclosures and together with the Consolidated Financial Statements and the notes thereto.

#### Overview

Our Company's goals are targeted at serving our customers, our employees, the environment, the communities in which we work and our stockholders. Increasingly, customers want more of their waste materials recovered, while waste streams are becoming more complex, and our aim is to address the current needs, while anticipating the expanding and evolving needs, of our customers.

We believe we are uniquely equipped to meet the challenges of the changing waste industry and our customers' waste management needs, both today and as we work together to envision and create a more sustainable future. As the waste industry leader, we have the expertise necessary to collect and handle our customers' waste efficiently and responsibly by delivering environmental performance — maximizing resource value, while minimizing environmental impact — so that both our economy and our environment can thrive.

Our fundamental strategy has not changed; we remain dedicated to providing long-term value to our stockholders by successfully executing our core strategy of focused differentiation and continuous improvement, with the current state of our strategy taking into account economic conditions, the regulatory environment, asset and resource availability and innovation through technology. We believe that focused differentiation in our industry, driven by capitalizing on our extensive, well-placed network of assets, will deliver profitable growth and competitive advantages. Simultaneously, we believe the combination of cost control, process improvement and operational efficiency will deliver on the Company's strategy of continuous improvement and yield an attractive total cost structure and enhanced service quality. While we will continue to monitor emerging diversion technologies that may generate additional value and related market dynamics, our current attention will be on improving existing diversion technologies, such as our recycling operations. We believe that execution of our strategy will deliver shareholder value and leadership in a dynamic industry.

#### Key items of our 2017 financial results include:

- Revenues of \$14,485 million for 2017 compared with \$13,609 million in 2016, an increase of \$876 million, or 6.4%. This increase is primarily attributable to (i) yield and volume growth in our collection and disposal lines of business, which contributed \$536 million of revenues; (ii) higher market prices for recycling commodities, which contributed \$237 million of revenue growth in our recycling line of business and (iii) increased fuel surcharge and mandated fees of \$73 million;
- Operating expenses of \$9,021 million in 2017, or 62.3% of revenues, compared with \$8,486 million, or 62.4% of revenues, in 2016. This increase of \$535 million is primarily attributable to (i) increased cost of goods sold due to higher market prices for recycling commodities; (ii) higher volumes; (iii) increased maintenance and repairs costs; (iv) increased labor and related benefits costs, primarily due to merit and headcount increases and (v) increased fuel costs, primarily due to higher fuel prices and the expiration of certain natural gas fuel excise tax credits. These increases were partially offset by decreased landfill leachate management costs;
- Selling, general and administrative expenses of \$1,468 million in 2017, or 10.1% of revenues, compared with \$1,410 million, or 10.4% of revenues, in 2016. This increase of \$58 million is primarily attributable to (i) the impact of favorable litigation settlements in 2016; (ii) merit increases; (iii) an increase in certain costs that vary with revenue and earnings growth, including incentive compensation accruals; (iv) higher severance costs and (v) charitable contributions made for hurricane relief efforts;
- Income from operations of \$2,636 million, or 18.2% of revenues, in 2017 compared with \$2,296 million, or 16.9% of revenues, in 2016, an increase of \$340 million;

- Net income attributable to Waste Management, Inc. of \$1,949 million, or \$4.41 per diluted share, for 2017 as compared with \$1,182 million, or \$2.65 per diluted share, for 2016; and
- In 2017, we returned \$1,500 million to our shareholders through dividends and share repurchases compared with \$1,451 million in 2016.

Our business performed exceptionally well in 2017, as our strategy of improving pricing, adding profitable volume and controlling costs led to another year of significant earnings improvement. Our focus on delivering exceptional customer service while bolstering employee engagement yielded consistently positive operational performance throughout the year. Our cash flow generation has also continued to exceed expectations, allowing us to invest in assets that support continuous improvement through efficiency and innovation and return \$1.5 billion to our shareholders in dividends and share repurchases in 2017. The success that we achieved in 2017 reinforces our foundation for earnings and cash flow growth in 2018, despite anticipated disruption and downward price pressure in the global market for recycling commodities. With the reduction in our cash taxes due to enactment of tax reform, we are investing in our front-line employees, technology and revenue generating assets to continue to grow our business and improve customer service. These investments, together with our long-held commitments to maintain a strong balance sheet, return cash to shareholders and pursue attractive strategic growth opportunities, position the Company to capitalize on its momentum as we work to deliver superior performance again in 2018.

The following explanations of certain items that affected the comparability of the years presented has been provided to support investors' understanding of our performance. Our 2017 results were affected by the following:

- An income tax benefit of \$529 million related to enactment of the Tax Cuts and Jobs Act, consisting of a net tax
  benefit of \$595 million for the re-measurement of our deferred income tax assets and liabilities, partially offset by
  income tax expense of \$66 million for a one-time, mandatory transition tax on the deemed repatriation of
  previously tax-deferred and unremitted foreign earnings. This net tax benefit had a favorable impact of \$1.20 on our
  diluted earnings per share;
- The recognition of net pre-tax charges aggregating to \$36 million, primarily related to (i) \$37 million of impairment charges related to investments in waste diversion technology companies; (ii) \$34 million of goodwill impairment charges for certain ancillary services businesses; (iii) an \$11 million charge for the withdrawal from an underfunded Multiemployer Pension Plan; (iv) \$11 million of charges to adjust our subsidiary's estimated potential share of an environmental remediation liability and related costs for a closed site in Harris County, Texas and (v) a charge of \$6 million related to the early extinguishment of \$590 million of 6.1% senior notes. These charges were partially offset by gains of \$31 million from the sale of certain oil and gas producing properties and a \$30 million reduction in post-closing, performance-based contingent consideration obligations associated with an acquired business in our EES organization. These net charges had a negative impact of \$0.08 on our diluted earnings per share; and
- Income tax benefit of \$32 million for excess tax benefits related to the vesting or exercise of equity-based compensation awards, which had a favorable impact of \$0.07 on our diluted earnings per share.

Our 2016 results were affected by the following:

• The recognition of pre-tax charges aggregating to \$151 million, primarily related to (i) a \$43 million impairment charge due to a loss of expected volumes for a landfill; (ii) a \$42 million charge to adjust our subsidiary's estimated potential share of an environmental remediation liability and related costs for a closed site in Harris County, Texas; (iii) \$41 million of impairment charges related to investments in waste diversion technology companies; (iv) a \$10 million goodwill impairment charge related to our LampTracker® reporting unit and (v) an \$8 million loss on the sale of a majority-owned organics company. These charges had a negative impact of \$0.26 on our diluted earnings per share.

#### Free Cash Flow

As is our practice, we are presenting free cash flow, which is a non-GAAP measure of liquidity, in our disclosures because we use this measure in the evaluation and management of our business. We define free cash flow as net cash

provided by operating activities, less capital expenditures, plus proceeds from divestitures of businesses and other assets (net of cash divested). We believe it is indicative of our ability to pay our quarterly dividends, repurchase common stock, fund acquisitions and other investments and, in the absence of refinancings, to repay our debt obligations. Free cash flow is not intended to replace net cash provided by operating activities, which is the most comparable GAAP measure. However, we believe free cash flow gives investors useful insight into how we view our liquidity. Nonetheless, the use of free cash flow as a liquidity measure has material limitations because it excludes certain expenditures that are required or that we have committed to, such as declared dividend payments and debt service requirements.

Our calculation of free cash flow and reconciliation to net cash provided by operating activities is shown in the table below for the years ended December 31 (in millions), and may not be calculated the same as similarly-titled measures presented by other companies:

	2017		2016		2015
Net cash provided by operating activities (a)	\$	3,180	\$	3,006	\$ 2,528
Capital expenditures		(1,509)		(1,339)	(1,233)
Proceeds from divestitures of businesses and other assets (net of cash divested)		99		43	145
Free cash flow (a)	\$	1,770	\$	1,710	\$ 1,440

(a) Prior year information has been revised to reflect the adoption of Accounting Standards Update ("ASU") 2016-09, which is discussed below in *Adoption of New Accounting Standards*, and conform to our current year presentation. See Note 2 to the Consolidated Financial Statements.

Our net cash flows provided by operating activities increased by \$174 million for the year ended December 31, 2017 compared with 2016, impacted by (i) higher earnings from our Traditional Solid Waste and recycling businesses and (ii) favorable changes in assets and liabilities, net of effects of acquisitions and divestitures. These increases were partially offset by (i) higher income tax payments of \$120 million in 2017; (ii) cash proceeds of \$67 million from the termination of our cross-currency swaps in 2016 and (iii) higher annual incentive plan cash payments of \$41 million in 2017.

Our net cash flows provided by operating activities increased by \$478 million for the year ended December 31, 2016 compared with 2015, impacted by (i) higher earnings from our Traditional Solid Waste and recycling businesses; (ii) cash proceeds of \$67 million from the termination of our cross-currency swaps in 2016; (iii) Multiemployer Pension Plan settlement payments of approximately \$60 million in 2015 and (iv) lower annual incentive plan cash payments of \$46 million in 2016; partially offset by higher income tax payments of \$23 million in 2016. Additionally, we experienced favorable changes in assets and liabilities, net of effects of acquisitions and divestitures, particularly non-trade related items including payroll and incentive accruals.

Capital expenditures increased by \$170 million when comparing 2017 with 2016 and \$106 million when comparing 2016 with 2015. The Company continues to maintain a disciplined focus on capital management and fluctuations in our capital expenditures are a result of new business opportunities, growth in our existing business, timing of replacement of aging assets and investment in assets that support our strategy of continuous improvement through efficiency and innovation.

#### Acquisitions

Southern Waste Systems/Sun Recycling ("SWS") — On January 8, 2016, Waste Management Inc. of Florida, an indirect wholly-owned subsidiary of WM, acquired certain operations and business assets of SWS in Southern Florida for total consideration of \$525 million. The acquired business assets include residential, commercial and industrial solid waste collection, processing/recycling and transfer operations, equipment, vehicles, real estate and customer agreements.

Deffenbaugh Disposal, Inc. ("Deffenbaugh") — On March 26, 2015, we acquired Deffenbaugh, one of the largest privately owned collection and disposal firms in the Midwest, for total consideration, net of cash acquired, of \$400 million. Deffenbaugh's assets include collection operations, transfer stations, recycling facilities and landfills.

#### Adoption of New Accounting Standards

Equity-Based Compensation — In March 2016, the Financial Accounting Standards Board ("FASB") issued ASU 2016-09 associated with equity-based compensation as part of its simplification initiative to reduce the cost and complexity of compliance with GAAP, while maintaining or improving the usefulness of the information provided. This amended guidance was effective for the Company on January 1, 2017 and required the following changes to the presentation of our financial statements:

- Excess tax benefits or deficiencies for share-based payments are now recorded as a discrete item in the period shares vest or stock options are exercised as an adjustment to income tax expense or benefit rather than additional paid-in capital. This change was applied prospectively as of January 1, 2017. The Company did not have any excess tax benefits that were not previously recognized as of January 1, 2017. See Note 8 to the Consolidated Financial Statements for discussion of the current year impact;
- As of January 1, 2017, the calculation of diluted weighted average shares outstanding was changed prospectively to
  no longer include excess tax benefits as assumed proceeds. This change did not have a material impact on our
  current year diluted earnings per share;
- Cash flows related to excess tax benefits or deficiencies are included in net cash provided by operating activities rather than as a financing activity. The Company adopted this change retrospectively, which resulted in an increase to net cash provided by operating activities and a corresponding increase to net cash used in financing activities of \$28 million and \$15 million for the years ended December 31, 2016 and 2015, respectively;
- Cash paid to taxing authorities when withholding shares from an employee's vesting or exercise of equity-based compensation awards for tax-withholding purposes is now considered a repurchase of the Company's equity instruments and is classified as net cash used in financing activities rather than as an operating activity. The Company adopted this change retrospectively, which resulted in an increase to net cash provided by operating activities and a corresponding increase to net cash used in financing activities of \$18 million and \$15 million for the years ended December 31, 2016 and 2015, respectively; and
- The Company elected to continue to estimate forfeitures rather than account for forfeitures as they occur.

Goodwill Impairment Testing — In January 2017, the FASB issued ASU 2017-04 which simplifies the goodwill impairment test by eliminating Step 2 of the quantitative assessment and should reduce the cost and complexity of evaluating goodwill for impairment. Under the amended guidance, when a quantitative assessment is required, an entity will perform a goodwill impairment test by comparing the estimated fair value of a reporting unit with its carrying amount. An impairment charge will be measured as the amount by which the carrying amount exceeds the reporting unit's estimated fair value, not to exceed the total amount of recorded goodwill. This amended guidance, effective for the Company on January 1, 2020, permits early adoption. The Company's early adoption on January 1, 2017 did not have a material impact on our consolidated financial statements.

#### Critical Accounting Estimates and Assumptions

In preparing our financial statements, we make numerous estimates and assumptions that affect the accounting for and recognition and disclosure of assets, liabilities, equity, revenues and expenses. We must make these estimates and assumptions because certain information that we use is dependent on future events, cannot be calculated with precision from available data or simply cannot be calculated. In some cases, these estimates are difficult to determine, and we must exercise significant judgment. In preparing our financial statements, the most difficult, subjective and complex estimates and the assumptions that present the greatest amount of uncertainty relate to our accounting for landfills, environmental remediation liabilities, long-lived asset impairments and reserves associated with our insured and self-insured claims. Each of these items is discussed in additional detail below. Actual results could differ materially from the estimates and assumptions that we use in the preparation of our financial statements.

### Landfills

Accounting for landfills requires that significant estimates and assumptions be made regarding (i) the cost to construct and develop each landfill asset; (ii) the estimated fair value of final capping, closure and post-closure asset retirement obligations, which must consider both the expected cost and timing of these activities; (iii) the determination of each landfill's remaining permitted and expansion airspace and (iv) the airspace associated with each final capping event.

Landfill Costs — We estimate the total cost to develop each of our landfill sites to its remaining permitted and expansion capacity. This estimate includes such costs as landfill liner material and installation, excavation for airspace, landfill leachate collection systems, landfill gas collection systems, environmental monitoring equipment for groundwater and landfill gas, directly related engineering, capitalized interest, on-site road construction and other capital infrastructure costs. Additionally, landfill development includes all land purchases for the landfill footprint and required landfill buffer property. The projection of these landfill costs is dependent, in part, on future events. The remaining amortizable basis of each landfill includes costs to develop a site to its remaining permitted and expansion capacity and includes amounts previously expended and capitalized, net of accumulated airspace amortization, and projections of future purchase and development costs.

Final Capping Costs — We estimate the cost for each final capping event based on the area to be capped and the capping materials and activities required. The estimates also consider when these costs are anticipated to be paid and factor in inflation and discount rates. Our engineering personnel allocate landfill final capping costs to specific final capping events. The landfill capacity associated with each final capping event is then quantified and the final capping costs for each event are amortized over the related capacity associated with the event as waste is disposed of at the landfill. We review these costs annually, or more often if significant facts change. Changes in estimates, such as timing or cost of construction, for final capping events immediately impact the required liability and the corresponding asset. When the change in estimate relates to a fully consumed asset, the adjustment to the asset must be amortized immediately through expense. When the change in estimate relates to a final capping event that has not been fully consumed, the adjustment to the asset is recognized in income prospectively as a component of landfill airspace amortization.

Closure and Post-Closure Costs — We base our estimates for closure and post-closure costs on our interpretations of permit and regulatory requirements for closure and post-closure monitoring and maintenance. The estimates for landfill closure and post-closure costs also consider when the costs are anticipated to be paid and factor in inflation and discount rates. The possibility of changing legal and regulatory requirements and the forward-looking nature of these types of costs make any estimation or assumption less certain. Changes in estimates for closure and post-closure events immediately impact the required liability and the corresponding asset. When the change in estimate relates to a fully consumed asset, the adjustment to the asset must be amortized immediately through expense. When the change in estimate relates to a landfill asset that has not been fully consumed, the adjustment to the asset is recognized in income prospectively as a component of landfill airspace amortization.

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

Expansion Airspace — We also include currently unpermitted expansion airspace in our estimate of remaining permitted and expansion airspace in certain circumstances. First, to include airspace associated with an expansion effort, we must generally expect the initial expansion permit application to be submitted within one year, and the final expansion permit to be received within five years. Second, we must believe that obtaining the expansion permit is likely, considering the following criteria:

- Personnel are actively working on the expansion of an existing landfill, including efforts to obtain land use and local, state or provincial approvals;
- We have a legal right to use or obtain land to be included in the expansion plan;

- There are no significant known technical, legal, community, business, or political restrictions or similar issues that could negatively affect the success of such expansion; and
- Financial analysis has been completed based on conceptual design, and the results demonstrate that the expansion
  meets Company criteria for investment.

For unpermitted airspace to be initially included in our estimate of remaining permitted and expansion airspace, the expansion effort must meet all of the criteria listed above. These criteria are evaluated by our field-based engineers, accountants, managers and others to identify potential obstacles to obtaining the permits. Once the unpermitted airspace is included, our policy provides that airspace may continue to be included in remaining permitted and expansion airspace even if certain of these criteria are no longer met as long as we continue to believe we will ultimately obtain the permit, based on the facts and circumstances of a specific landfill. In these circumstances, continued inclusion must be approved through a landfill-specific review process that includes approval by our Chief Financial Officer and a review by the Audit Committee of our Board of Directors on a quarterly basis. Of the 15 landfill sites with expansions included as of December 31, 2017, three landfills required the Chief Financial Officer to approve the inclusion of the unpermitted airspace. One landfill required approval by our Chief Financial Officer because of community or political opposition that could impede the expansion process. The remaining two landfills required approval because the permit application process did not meet the one- or five-year requirements.

When we include the expansion airspace in our calculations of remaining permitted and expansion airspace, we also include the projected costs for development, as well as the projected asset retirement costs related to final capping, closure and post-closure of the expansion in the amortization basis of the landfill.

Once the remaining permitted and expansion airspace is determined in cubic yards, an airspace utilization factor ("AUF") is established to calculate the remaining permitted and expansion capacity in tons. The AUF is established using the measured density obtained from previous annual surveys and is then adjusted to account for future settlement. The amount of settlement that is forecasted will take into account several site-specific factors including current and projected mix of waste type, initial and projected waste density, estimated number of years of life remaining, depth of underlying waste, anticipated access to moisture through precipitation or recirculation of landfill leachate and operating practices. In addition, the initial selection of the AUF is subject to a subsequent multi-level review by our engineering group and the AUF used is reviewed on a periodic basis and revised as necessary. Our historical experience generally indicates that the impact of settlement at a landfill is greater later in the life of the landfill when the waste placed at the landfill approaches its highest point under the permit requirements.

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

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

#### Environmental Remediation Liabilities

We are subject to an array of laws and regulations relating to the protection of the environment. Under current laws and regulations, we may have liabilities for environmental damage caused by operations, or for damage caused by conditions that existed before we acquired a site. These liabilities include PRP investigations, settlements, and certain legal

and consultant fees, as well as costs directly associated with site investigation and clean up, such as materials, external contractor costs and incremental internal costs directly related to the remedy. We provide for expenses associated with environmental remediation obligations when such amounts are probable and can be reasonably estimated. We routinely review and evaluate sites that require remediation and determine our estimated cost for the likely remedy based on a number of estimates and assumptions.

Where it is probable that a liability has been incurred, we estimate costs required to remediate sites based on site-specific facts and circumstances. We routinely review and evaluate sites that require remediation, considering whether we were an owner, operator, transporter, or generator at the site, the amount and type of waste hauled to the site and the number of years we were associated with the site. Next, we review the same type of information with respect to other named and unnamed PRPs. Estimates of the costs for the likely remedy are then either developed using our internal resources or by third-party environmental engineers or other service providers. Internally developed estimates are based on:

- Management's judgment and experience in remediating our own and unrelated parties' sites;
- Information available from regulatory agencies as to costs of remediation;
- The number, financial resources and relative degree of responsibility of other PRPs who may be liable for remediation of a specific site; and
- The typical allocation of costs among PRPs, unless the actual allocation has been determined.

#### Long-Lived Asset Impairments

We assess our long-lived assets for impairment as required under the applicable accounting standards. If necessary, impairments are recorded in (income) expense from divestitures, asset impairments and unusual items, net in our Consolidated Statement of Operations.

Property and Equipment, Including Landfills and Definite-Lived Intangible Assets — We monitor the carrying value of our long-lived assets for potential impairment on an ongoing basis and test the recoverability of such assets generally using significant unobservable ("Level 3") inputs whenever events or changes in circumstances indicate that their carrying amounts may not be recoverable. These events or changes in circumstances, including management decisions pertaining to such assets, are referred to as impairment indicators. If an impairment indicator occurs, we perform a test of recoverability by comparing the carrying value of the asset or asset group to its undiscounted expected future cash flows. If cash flows cannot be separately and independently identified for a single asset, we will determine whether an impairment has occurred for the group of assets for which we can identify the projected cash flows. If the carrying values are in excess of undiscounted expected future cash flows, we measure any impairment by comparing the fair value of the asset or asset group to its carrying value and the difference is recorded in the period that the impairment indicator occurs. Fair value is generally determined by considering (i) internally developed discounted projected cash flow analysis of the asset or asset group; (ii) actual third-party valuations and/or (iii) information available regarding the current market for similar assets. Estimating future cash flows requires significant judgment and projections may vary from the cash flows eventually realized, which could impact our ability to accurately assess whether an asset has been impaired.

The assessment of impairment indicators and the recoverability of our capitalized costs associated with landfills and related expansion projects require significant judgment due to the unique nature of the waste industry, the highly regulated permitting process and the sensitive estimates involved. During the review of a landfill expansion application, a regulator may initially deny the expansion application although the expansion permit is ultimately granted. In addition, management may periodically divert waste from one landfill to another to conserve remaining permitted landfill airspace, or a landfill may be required to cease accepting waste, prior to receipt of the expansion permit. However, such events occur in the ordinary course of business in the waste industry and do not necessarily result in impairment of our landfill assets because, after consideration of all facts, such events may not affect our belief that we will ultimately obtain the expansion permit. As a result, our tests of recoverability, which generally make use of a probability-weighted cash flow estimation approach, may indicate that no impairment loss should be recorded.

*Indefinite-Lived Intangible Assets, Including Goodwill* — At least annually, and more frequently if warranted, we assess the indefinite-lived intangible assets, including the goodwill of our reporting units for impairment using Level 3 inputs.

We assess whether an impairment exists using a quantitative assessment. Our quantitative assessment identifies potential impairments by comparing the estimated fair value of a reporting unit to its carrying amount, including goodwill. An impairment charge is recognized if the asset's estimated fair value is less than its carrying amount. Fair value is typically estimated using an income approach. However, when appropriate, we may also use a market approach. The income approach is based on the long-term projected future cash flows of the reporting units. We discount the estimated cash flows to present value using a weighted average cost of capital that considers factors such as market assumptions, the timing of the cash flows and the risks inherent in those cash flows. We believe that this approach is appropriate because it provides a fair value estimate based upon the reporting units' expected long-term performance considering the economic and market conditions that generally affect our business. The market approach estimates fair value by measuring the aggregate market value of publicly-traded companies with similar characteristics to our business as a multiple of their reported earnings. We then apply that multiple to the reporting units' earnings to estimate their fair values. We believe that this approach may also be appropriate in certain circumstances because it provides a fair value estimate using valuation inputs from entities with operations and economic characteristics comparable to our reporting units.

Fair value is computed using several factors, including projected future operating results, economic projections, anticipated future cash flows, comparable marketplace data and the cost of capital. There are inherent uncertainties related to these factors and to our judgment in applying them in our analysis. However, we believe our methodology for estimating the fair value of our reporting units is reasonable.

See Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations — (Income) Expense from Divestitures, Asset Impairments and Unusual Items, Net and Note 6 to the Consolidated Financial Statements for information related to goodwill impairments recognized during the reported periods.

## Insured and Self-Insured Claims

We have retained a significant portion of the risks related to our health and welfare, general liability, automobile liability and workers' compensation claims programs. The exposure for unpaid claims and associated expenses, including incurred but not reported losses, are based on an actuarial valuations and internal estimates. The accruals for these liabilities could be revised if future occurrences or loss developments significantly differ from our assumptions used. Estimated recoveries associated with our insured claims are recorded as assets when we believe that the receipt of such amounts is probable.

In December 2017, we elected to use a wholly-owned insurance captive to insure the deductibles for our general liability, automobile liability and workers' compensation claims programs. We continue to maintain conventional insurance policies with third-party insurers. In addition to certain business and operating benefits of having a wholly-owned insurance captive, we expect to receive certain cash flow benefits related to the timing of tax deductions related to these claims. WM will pay an annual premium to the insurance captive, typically in the first quarter of the year comprised of equal parts cash and an intercompany note, for the estimated losses based on the external actuarial analysis. These premiums will be held in a restricted escrow account to be used solely for paying insurance claims, resulting in a transfer of risk from WM to the insurance captive.

## **Results of Operations**

## **Operating Revenues**

Our operating revenues set forth below are primarily generated from fees charged for our collection, transfer, disposal, and recycling and resource recovery services, and from sales of commodities by our recycling and landfill gas-to-energy operations. Revenues from our collection operations are influenced by factors such as collection frequency, type of collection equipment furnished, type and volume or weight of the waste collected, distance to the disposal facility or MRF

and our disposal costs. Revenues from our landfill operations consist of tipping fees, which are generally based on the type and weight or volume of waste being disposed of at our disposal facilities. Fees charged at transfer stations are generally based on the weight or volume of waste deposited, taking into account our cost of loading, transporting and disposing of the solid waste at a disposal site. Recycling revenues generally consist of tipping fees and the sale of recycling commodities to third parties. The fees we charge for our collection, disposal, transfer and recycling services generally include fuel surcharges, which are indexed to current market costs for diesel fuel. We also provide additional services that are not managed through our Solid Waste business, including both our WMSBS and EES organizations, recycling brokerage services, landfill gas-to-energy services and expanded service offerings and solutions. Our expanded service offerings and solutions include (i) portable self-storage and long distance moving services; (ii) fluorescent bulb and universal waste mail-back through our LampTracker® program; (iii) portable restroom servicing under the name Port-o-Let® and (iv) street and parking lot sweeping services. In addition, we hold interests in oil and gas producing properties. These operations are presented in our "Other" segment in the table below. The following table summarizes revenues during the years ended December 31 (in millions):

	2017	2016	2015
Solid Waste	\$ 14,832	\$ 13,968	\$ 13,285
Other	2,538	2,278	2,065
Intercompany	(2,885)	(2,637)	(2,389)
Total	\$ 14,485	\$ 13,609	\$ 12,961

The mix of operating revenues from our major lines of business is reflected in the table below for the years ended December 31 (in millions):

	2017	2016	2015
Commercial	\$ 3,714	\$ 3,480	\$ 3,332
Residential	2,528	2,487	2,499
Industrial	2,583	2,412	2,252
Other	439	423	356
Total collection	9,264	8,802	8,439
Landfill	3,370	3,110	2,919
Transfer	1,591	1,512	1,377
Recycling	1,432	1,221	1,163
Other (a)	1,713	1,601	1,452
Intercompany (b)	(2,885)	(2,637)	(2,389)
Total	\$ 14,485	\$ 13,609	\$ 12,961

- (a) The "Other" line of business includes (i) our WMSBS organization; (ii) our landfill gas-to-energy operations; (iii) certain services within our EES organization, including our construction and remediation services and our services associated with the disposal of fly ash and (iv) our expanded service offerings and solutions, such as portable self-storage and long distance moving services, and interests we hold in oil and gas producing properties. In addition, our "Other" line of business reflects the results of non-operating entities that provide financial assurance and self-insurance support, net of intercompany activity.
- (b) Intercompany revenues between lines of business are eliminated in the Consolidated Financial Statements included within this report.

The following table provides details associated with the period-to-period change in revenues (dollars in millions):

		2017	vs. 2016	2016 vs. 2015		
			As a % of Total		As a % of Total	
	A	mount	Company(a)	Amount	Company(a)	
Average yield (b)	\$	551	4.1 %	\$ 251	1.9 %	
Volume		289	2.1	186	1.4	
Internal revenue growth	_	840	6.2	437	3.3	
Acquisitions		48	0.3	268	2.1	
Divestitures		(27)	(0.2)	(30)	(0.2)	
Foreign currency translation		15	0.1	(27)	(0.2)	
Total	\$	876	6.4 %	\$ 648	5.0 %	

- (a) Calculated by dividing the increase or decrease for the current year by the prior year's total Company revenue, adjusted to exclude the impacts of divestitures for the current year (\$13,582 million and \$12,931 million for 2017 and 2016, respectively).
- (b) The amounts reported herein represent the changes in our revenue attributable to average yield for the total Company. We also analyze the changes in average yield in terms of related business revenues in order to differentiate the changes in yield attributable to our pricing strategies from the changes that are caused by market-driven price changes in commodities. The following table summarizes the period-to-period change in revenues from average yield on a related business basis (dollars in millions):

	2017 vs. 2016			20	. 2015	
	Aı	mount	As a % of Related Business(i)	Amou		As a % of Related Business(i)
Average yield:						
Collection and disposal	\$	241	2.0 %	\$ 26	7	2.4 %
Recycling commodities		237	20.1	5	1	4.6
Fuel surcharges and mandated fees		73	16.3	(6	7)	(13.1)
Total	\$	551	4.1 %	\$ 25	1	1.9 %

 Calculated by dividing the increase or decrease for the current year by the prior year's related business revenue, adjusted to exclude the impacts of divestitures for the current year.

Our revenues increased \$876 million, or 6.4%, for the year ended December 31, 2017 as compared with the prior year, driven primarily by (i) higher volumes; (ii) revenue growth from yield on our collection and disposal lines of business (iii) higher market prices for the recycling commodities we sell and (iv) higher revenues from our fuel surcharge program due to higher diesel fuel prices.

Our revenues increased \$648 million, or 5.0%, for the year ended December 31, 2016 as compared with the prior year, driven by (i) acquisitions, primarily the acquired operations of SWS in January 2016; (ii) revenue growth from yield on our collection and disposal lines of business; (iii) higher volumes and (iv) higher market prices for the recycling commodities we sell. Partially offsetting these revenue increases were (i) lower revenues from our fuel surcharge program due to lower diesel fuel prices; (ii) divestitures and (iii) foreign currency translation which affects revenues from our Canadian operations.

The following provides further details about our period-to-period change in revenues:

Average Yield

Collection and Disposal Average Yield — This measure reflects the effect on our revenue from the pricing activities of our collection, transfer and landfill operations, exclusive of volume changes. Revenue growth from collection and

disposal average yield includes not only base rate changes and environmental and service fee increases, but also (i) certain average price changes related to the overall mix of services, which are due to the types of services provided; (ii) changes in average price from new and lost business and (iii) price decreases to retain customers.

Revenue growth from collection and disposal average yield was \$241 million, or 2.0%, and \$267 million, or 2.4%, for the years ended December 31, 2017 and 2016, respectively. We experienced growth in yield for all of our collection and disposal lines of business in both 2017 and 2016. The period-to-period changes are as follows (dollars in millions):

		2017 v	s. 2016	2016 vs. 2015		
	A	mount	As a % of Related Business	Amount	As a % of Related Business	
Commercial	\$	99	3.0 %	\$ 130	4.2 %	
Industrial		69	3.1	59	2.8	
Residential		44	1.8	46	1.9	
Total collection	'	212	2.6	235	3.0	
Landfill		17	0.9	15	0.8	
Transfer		12	1.5	17	2.5	
Total collection and disposal	\$	241	2.0 %	\$ 267	2.4 %	

Our increase in collection and disposal yield for the years ended December 31, 2017 and 2016, compared with the prior years, includes increased revenues from our environmental fees of \$67 million and \$72 million, respectively.

Recycling Commodities — Increases in the market prices for recycling commodities resulted in revenue growth of \$237 million and \$51 million for the years ended December 31, 2017 and 2016, respectively, as compared with the prior years due to the increase in the market prices of the recycling commodities we sell at our recycling facilities and through our recycling brokerage business. However, beginning in September 2017, disruptions in the global movement of recycling commodities and the impact of natural disasters along the Gulf Coast decreased market prices for recycling commodities, which reduced our revenues in the fourth quarter of 2017 as compared with the prior year period. We expect these disruptions in the market for recycling commodities to extend through the first half of 2018, which will continue to put downward pressure on average market prices for recycling commodities.

Fuel Surcharges and Mandated Fees — These revenues, which are predominantly generated by our fuel surcharge program, increased \$73 million for the year ended December 31, 2017 and decreased \$67 million for the year ended December 31, 2016, as compared with the prior years. These revenues fluctuate in response to changes in the national average prices for diesel fuel on which our surcharge is based. Market prices for diesel fuel increased 15% for the year ended December 31, 2017 and decreased 14% for the year ended December 31, 2016, compared with the prior years. The mandated fees included in this line item are primarily related to pass-through fees and taxes assessed by various state, county and municipal government agencies at our landfills and transfer stations. These fees did not have a significant impact on the comparability of the periods presented.

## Volume

Our revenues from volume increased \$289 million, or 2.1%, and \$186 million, or 1.4%, for the years ended December 31, 2017 and 2016, respectively, as compared with the prior years. The comparison does not include volumes from acquisitions.

We experienced higher volumes due to improving market conditions and strong sales performance. Our focus on customer service and disciplined growth delivered consistent results throughout 2017 and 2016. The most significant contributors to our volume growth were commercial and industrial collection; municipal solid waste and construction and demolition landfills; and transfer stations. Our residential line of business experienced volume declines in 2017 and 2016 due to our continued focus on renegotiating existing contracts and winning only those new contracts with a reasonable rate of return.

Additional drivers affecting the comparability of volumes for 2017 to 2016 are as follows:

- Over \$60 million of our landfill volume increases resulted from events during 2017 that may not repeat, including
  natural disasters throughout the U.S. primarily in the fourth quarter of 2017 and from an eleven-month outage at a
  waste-to-energy facility in Virginia that ended in mid-December;
- Two large new contract additions in 2017 that favorably impacted our volume growth;
- Our WMSBS organization experienced favorable volume growth;
- The completion of certain project work performed throughout 2016 in our collection line of business in Southern California and other line of business from our EES organization negatively impacted our volume growth; and
- One less workday in 2017 negatively impacted our volume growth.

Additional drivers affecting the comparability of volumes for 2016 to 2015 are as follows:

- In our ancillary services businesses, we experienced higher volumes in 2016 as compared with 2015 resulting from
  our EES organization, particularly our remediation and construction services, our WM Renewable Energy
  organization and our portable self-storage business. These volume increases were partially offset by lower volumes
  due to lower oil prices, which negatively affected both our oil and gas producing properties and our oilfield services
  business; and
- An additional workday in 2016 favorably impacted our volume growth.

## Acquisitions and Divestitures

Acquisitions increased revenues \$48 million and \$268 million for the years ended December 31, 2017 and 2016, respectively, as compared with the prior years. The increase in revenues in 2016 was principally due to the acquired operations of SWS in January 2016. These revenues were partially offset by revenue decreases due to divestitures of \$27 million and \$30 million for the years ended December 31, 2017 and 2016, respectively, as compared with the prior years.

## **Operating Expenses**

Our operating expenses are comprised of (i) labor and related benefits costs (excluding labor costs associated with maintenance and repairs discussed below), which include salaries and wages, bonuses, related payroll taxes, insurance and benefits costs and the costs associated with contract labor; (ii) transfer and disposal costs, which include tipping fees paid to third-party disposal facilities and transfer stations; (iii) maintenance and repairs costs relating to equipment, vehicles and facilities and related labor costs; (iv) subcontractor costs, which include the costs of independent haulers who transport waste collected by us to disposal facilities and are affected by variables such as volumes, distance and fuel prices; (v) costs of goods sold, which includes the cost to purchase recycling materials for our recycling business, including rebates paid to suppliers; (vi) fuel costs, which represent the costs of fuel and oil to operate our truck fleet and landfill operating equipment; (vii) disposal and franchise fees and taxes, which include landfill taxes, municipal franchise fees, host community fees, contingent landfill lease payments and royalties; (viii) landfill operating costs, which include interest accretion on landfill liabilities, interest accretion on and discount rate adjustments to environmental remediation liabilities and recovery assets, leachate and methane collection and treatment, landfill remediation costs and other landfill site costs; (ix) risk management costs, which include general liability, automobile liability, workers' compensation and insurance and claim costs and (x) other operating costs, which include telecommunications, equipment and facility lease expenses, property taxes, utilities and supplies.

The following table summarizes the major components of our operating expenses for the years ended December 31 (dollars in millions):

		Period-to- Period		Period-to- Period			
	2017	Cha	nge	2016	Cha	nge	2015
Labor and related benefits	\$2,500	\$ 90	3.7 %	\$2,410	\$ 29	1.2 %	\$2,381
Transfer and disposal costs	996	22	2.3	974	35	3.7	939
Maintenance and repairs	1,170	94	8.7	1,076	54	5.3	1,022
Subcontractor costs	1,236	43	3.6	1,193	56	4.9	1,137
Cost of goods sold	969	111	12.9	858	67	8.5	791
Fuel	375	75	25.0	300	(61)	(16.9)	361
Disposal and franchise fees and taxes	753	51	7.3	702	40	6.0	662
Landfill operating costs	328	(24)	(6.8)	352	97	38.0	255
Risk management	219	27	14.1	192	(29)	(13.1)	221
Other	475	46	10.7	429	(33)	(7.1)	462
	\$9,021	\$535	6.3 %	\$8,486	\$ 255	3.1 %	\$8,231

Our operating expenses increased \$535 million, or 6.3%, when comparing 2017 with 2016 and \$255 million, or 3.1%, when comparing 2016 with 2015. Operating expenses as a percentage of revenues were 62.3% in 2017, 62.4% in 2016 and 63.5% in 2015.

Significant items affecting the comparison of operating expenses between reported periods include:

Labor and Related Benefits — The increase in labor and related benefits costs in 2017 as compared with 2016 was due to (i) merit increases; (ii) increased headcount driven, in part, by higher volumes and (iii) charges for the withdrawal from certain Multiemployer Pension Plans. These cost increases were partially offset by one less workday in 2017.

The increase in labor and related benefits costs in 2016 as compared with 2015 was due to (i) merit increases; (ii) additional costs associated with the acquired operations of SWS in January 2016; (iii) health and welfare cost increases; (iv) an additional workday in 2016 and (v) higher incentive compensation accruals. These cost increases were partially offset by (i) \$51 million of charges in 2015 for the withdrawal from certain underfunded Multiemployer Pension Plans and (ii) lower headcount and contract labor costs in 2016 due to operating efficiencies in our recycling line of business.

*Transfer and Disposal Costs* — The increase in transfer and disposal costs in 2017 compared with 2016 was primarily driven by higher volumes. The increase in costs in 2016 compared with 2015 was driven by acquisitions, primarily SWS, and higher volumes.

Maintenance and Repairs — The increase in maintenance and repairs costs in 2017 compared with 2016 was primarily driven by (i) higher third-party repairs and parts costs and (ii) higher labor costs due to increased headcount, merit increases, and retention and training efforts. The increase in costs in 2016 compared with 2015 was primarily driven by (i) higher labor and parts and supplies costs and (ii) acquisitions, primarily the acquired operations of SWS.

Subcontractor Costs — Increases in subcontractor costs in 2017 compared with 2016 were driven by higher volumes in our Solid Waste business and our WMSBS organization. The increase in costs in 2016 compared with 2015 was driven by acquisitions and higher volumes in our WMSBS organization. The increases for both years were partially offset by a decrease in subcontracted remediation and construction services to industrial customers.

Cost of Goods Sold — The increase in cost of goods sold in 2017 compared with 2016 was due to higher market prices for recycling commodities, partially offset by lower costs due to (i) continued efforts to restructure recycling rebates paid to customers and (ii) the divestiture of a majority-owned organics company in 2016. The increase in costs in 2016 compared with 2015 was due to (i) higher market prices for recycling commodities and (ii) increased costs in our remediation and construction services business, partially offset by lower costs due to continued efforts to restructure recycling rebates paid to customers.

Fuel — The increase in fuel costs in 2017 compared with 2016 was primarily due to (i) higher fuel prices; (ii) the expiration of certain natural gas fuel excise tax credits as of December 31, 2016 and (iii) higher volumes in our collection line of business. These cost increases were partially offset by (i) lower costs resulting from the continued conversion of our fleet to natural gas vehicles and (ii) reduced fuel consumption due to efficiency gains in the routing of our fleet. The decrease in fuel costs in 2016 compared with 2015 was driven by (i) lower fuel prices; (ii) lower costs resulting from the continued conversion of our fleet to natural gas vehicles; (iii) increases in natural gas fuel excise credits and (iv) reduced fuel consumption due to efficiency gains in the routing of our fleet. The higher volumes in our collection line of business in 2016 partially offset these decreases.

Disposal and Franchise Fees and Taxes — The increase in disposal and franchise fees and taxes in 2017 compared with 2016 is primarily due to higher landfill volumes and increased municipal franchise fees. The increase in 2016 compared with 2015 is primarily due to (i) higher landfill volumes; (ii) increased municipal franchise fees and (iii) increased subcontracted remediation and construction services to industrial customers.

Landfill Operating Costs — The most significant item impacting landfill operating costs for the periods presented was landfill leachate management costs, which were lower in 2017 compared to 2016 and higher in 2016 compared to 2015.

Risk Management — The increase in risk management costs in 2017 compared with 2016 was primarily due to increases in certain uninsured losses. The decrease in costs in 2016 compared with 2015 was primarily due to a reduction in certain uninsured losses and, to a lesser extent, decreased workers' compensation claims.

Other — The changes in other operating costs in the reported periods were principally driven by favorable adjustments to our contingent consideration liabilities associated with certain acquisitions in 2016 and fluctuations in operating lease expenses. Operating lease expenses were higher in 2017 compared with 2016 and lower in 2016 when compared with 2015.

## Selling, General and Administrative Expenses

Our selling, general and administrative expenses consist of (i) labor and related benefits costs, which include salaries, bonuses, related insurance and benefits, contract labor, payroll taxes and equity-based compensation; (ii) professional fees, which include fees for consulting, legal, audit and tax services; (iii) provision for bad debts, which includes allowances for uncollectible customer accounts and collection fees and (iv) other selling, general and administrative expenses, which include, among other costs, facility-related expenses, voice and data telecommunication, advertising, bank charges, computer costs, travel and entertainment, rentals, postage and printing. In addition, the financial impacts of litigation settlements generally are included in our "Other" selling, general and administrative expenses.

The following table summarizes the major components of our selling, general and administrative expenses for the years ended December 31 (dollars in millions):

		Perio Per	iod	Period-to- Period			
	2017	Cha	nge	2016	Cha	nge	2015
Labor and related benefits	\$1,000	\$ 32	3.3 %	\$ 968	\$ 94	10.8 %	\$ 874
Professional fees	102	5	5.2	97	(15)	(13.4)	112
Provision for bad debts	42	2	5.0	40	4	11.1	36
Other	324	19	6.2	305	(16)	(5.0)	321
	\$1,468	\$ 58	4.1 %	\$1,410	\$ 67	5.0 %	\$1,343

Our selling, general and administrative expenses increased \$58 million, or 4.1%, when comparing 2017 with 2016 and \$67 million, or 5.0%, when comparing 2016 with 2015. Our selling, general and administrative expenses as a percentage of revenues were 10.1% in 2017 and 10.4% in 2016 and 2015.

Significant items affecting the comparison of our selling, general and administrative expenses between reported periods include:

Labor and Related Benefits — The increase in labor and related benefits costs in 2017 compared with 2016 was primarily due to (i) merit increases; (ii) an increase in certain costs that vary with revenue and earnings growth, including incentive compensation accruals and (iii) higher severance costs for former executives in 2017. The increase in costs in 2016 compared with 2015 was primarily due to (i) higher incentive compensation accruals; (ii) merit increases; (iii) higher severance costs and (iv) acquisitions.

Professional Fees — The decrease in professional fees in 2016 compared with 2015 was primarily due to lower legal fees.

Other — The increase in other expenses in 2017 compared with 2016 was primarily due to favorable litigation settlements in 2016 and charitable contributions made for hurricane relief efforts in 2017. The decrease in other expenses in 2016 compared with 2015 was principally driven by favorable litigation settlements and lower bank charges.

## Depreciation and Amortization Expenses

Depreciation and amortization expenses include (i) depreciation of property and equipment, including assets recorded for capital leases, on a straight-line basis from three to 40 years; (ii) amortization of landfill costs, including those incurred and all estimated future costs for landfill development, construction and asset retirement costs arising from closure and post-closure, on a units-of-consumption method as landfill airspace is consumed over the total estimated remaining capacity of a site, which includes both permitted capacity and expansion capacity that meets our Company-specific criteria for amortization purposes; (iii) amortization of landfill asset retirement costs arising from final capping obligations on a units-of-consumption method as airspace is consumed over the estimated capacity associated with each final capping event and (iv) amortization of intangible assets with a definite life, using either a 150% declining balance approach or a straight-line basis over the definitive terms of the related agreements, which are generally from two to 15 years depending on the type of asset.

The following table summarizes the components of our depreciation and amortization expenses for the years ended December 31 (dollars in millions):

	2017	Perio Peri Cha	iod	Per	od-to- riod ange 2015
Depreciation of tangible property and equipment	\$ 783	\$ 10	1.3 % \$ 773	\$ 13	1.7 % \$ 760
Amortization of landfill airspace	497	69	16.1 428	19	4.6 409
Amortization of intangible assets	96	(4)	(4.0) 100	24	31.6 76
	\$1,376	\$ 75	5.8 % \$1,301	\$ 56	4.5 % \$1,245

The increase in amortization of landfill airspace during 2017 as compared with the prior year is primarily due to higher volumes at our landfills and changes in our landfill estimates.

The increase in depreciation of tangible property and equipment and amortization of intangible assets during 2016 as compared with the prior year is primarily due to the acquired operations of SWS in January 2016. The increase in amortization of landfill airspace during 2016 as compared with the prior year is due to higher volumes at our landfills, partially offset by changes in our landfill estimates.

## (Income) Expense from Divestitures, Asset Impairments and Unusual Items, Net

The following table summarizes the major components of (income) expense from divestitures, asset impairments and unusual items, net for the years ended December 31 (in millions):

		2017	2016	2015	
(Income) expense from divestitures	5	\$ (38)	\$ 9	\$	(7)
Asset impairments		41	59		89
Other		(19)	44		_
	9	\$ (16)	\$ 112	\$	82

During the year ended December 31, 2017, we recognized net income of \$16 million, primarily related to (i) gains of \$31 million from the sale of certain oil and gas producing properties and (ii) a \$30 million reduction in post-closing, performance-based contingent consideration obligations associated with an acquired business in our EES organization. These gains were partially offset by (i) \$34 million of goodwill impairment charges primarily related to our EES organization; (ii) \$11 million of charges to adjust our subsidiary's estimated potential share of an environmental remediation liability and related costs for a closed site in Harris County, Texas, as discussed in Note 10 to the Consolidated Financial Statements and (iii) \$7 million of charges to write down certain renewable energy assets.

During the year ended December 31, 2016, we recognized net charges of \$112 million, primarily related to (i) \$44 million of charges to adjust our subsidiary's estimated potential share of an environmental remediation liability and related costs for a closed site in Harris County, Texas, as discussed in Note 10 to the Consolidated Financial Statements; (ii) a \$43 million charge to impair a landfill in Western Pennsylvania due to a loss of expected volumes; (iii) \$12 million of goodwill impairment charges primarily related to our LampTracker® reporting unit and (iv) an \$8 million loss on the sale of a majority-owned organics company.

During the year ended December 31, 2015, we recognized net charges of \$82 million, primarily related to (i) \$66 million of charges to impair certain oil and gas producing properties as a result of declines in oil and gas prices; (ii) \$18 million of charges to write down or divest certain assets in our recycling operations and (iii) a \$5 million impairment of a landfill in our Western Canada Area due to revised post-closure cost estimates. Partially offsetting these charges was \$7 million of net gains from divestitures, including a \$6 million gain on the sale of an oil and gas producing property in 2015.

See Note 3 to the Consolidated Financial Statements for additional information related to the accounting policy and analysis involved in identifying and calculating impairments.

## **Income from Operations**

The following table summarizes income from operations for the years ended December 31 (dollars in millions):

	Period Pe		Period		Period-to- Period Change		2015
Solid Waste:							
Tier 1	\$1,538	\$ 108	7.6 %	\$1,430	\$ 140	10.9 %	\$1,290
Tier 2	552	30	5.7	522	76	17.0	446
Tier 3	1,199	205	20.6	994	3	0.3	991
Solid Waste	3,289	343	11.6	2,946	219	8.0	2,727
Other	(68)	32	(32.0)	(100)	60	(37.5)	(160)
Corporate and Other	(585)	(35)	6.4	(550)	(28)	5.4	(522)
Total	\$2,636	\$ 340	14.8 %	\$2,296	\$ 251	12.3 %	\$2,045

All information presented has been updated to reflect our realigned segments which are discussed further in Note 19 to the Consolidated Financial Statements.

Solid Waste — The most significant items affecting the results of operations of our Solid Waste business during the three years ended December 31, 2017 are summarized below:

The following items affected both comparable periods:

- Our Traditional Solid Waste business benefited from internal revenue growth;
- Our recycling line of business was favorable principally due to higher market prices for recycling commodities; and
- The impairment charge for a landfill in Tier 3 in 2016 due to a loss of expected volumes.

In addition, the following items affected 2017 when compared with 2016:

- Higher labor and related benefits costs in the current year primarily due to merit increases and charges for the withdrawal from certain underfunded Multiemployer Pension Plans, primarily in Tier 3;
- Decreased landfill leachate management costs in Tier 3;
- Increased landfill amortization expense related to higher volumes at our landfills and changes in our landfill estimates, primarily in Tier 3; and
- Increased maintenance and repairs costs.

In addition, the following items affected 2016 when compared with 2015:

- Increased landfill leachate management costs in Tier 3 in 2016;
- Higher labor and related benefit costs in 2016 due to merit increases, higher incentive compensation accruals and increases in health and welfare costs;
- Charges of \$51 million for the withdrawal from certain underfunded Multiemployer Pension Plans in 2015 impacting all three tiers; and
- Improvements in our recycling line of business due to cost reductions and charges to write down or divest certain recycling assets in 2015 in Tier 1 and Tier 3.

Other — Our "Other" income from operations includes (i) our WMSBS organization; (ii) those elements of our landfill gas-to-energy operations and third-party subcontract and administration revenues managed by our EES and WM Renewable Energy organizations that are not included in operations of our reportable segments; (iii) our recycling brokerage services and (iv) our expanded service offerings and solutions, such as portable self-storage and long distance

moving services, fluorescent bulb and universal waste mail-back through our LampTracker® program, and interests we hold in oil and gas producing properties.

The following items affected both comparable periods:

Expenses from divestitures, asset impairments and unusual items related to a loss on the sale of a majority-owned
organics company and the goodwill impairment charge associated with our LampTracker® reporting unit in 2016.

The following items affected 2017 when compared with 2016:

- Gains from the sale of certain oil and gas producing properties in 2017; and
- Goodwill impairment charges, partially offset by a reduction in contingent consideration obligations, in our EES
  organization.

The following items affected 2016 when compared with 2015:

- Impairment charges of \$66 million related to oil and gas producing properties recognized in 2015;
- Our EES organization's results were higher in 2016 principally driven by an increase in remediation and construction services costs to industrial customers in 2015; and
- Increased costs in our WMSBS organization driven, in part, by the transfer of certain sales employees from our Corporate and Other segment to this segment in 2016.

## Corporate and Other

The following items affected 2017 when compared with 2016:

- Charges in both years to adjust our subsidiary's estimated potential share of an environmental remediation liability
  and related costs for a closed site in Harris County, Texas, primarily in 2016;
- Higher labor and related benefits costs in the current year were primarily related to higher incentive compensation accruals, merit increases and severance costs; and
- A favorable litigation settlement providing for the reimbursement of certain legal fees in 2016.

The following items affected 2016 when compared with 2015:

- Higher labor and related benefit costs in 2016 due to higher incentive compensation accruals, severance costs, health and welfare costs and merit increases:
- An increase in a subsidiary's estimated potential share of an environmental remediation liability and related costs for a closed site in Harris County, Texas in 2016;
- Decreased risk management costs in 2016; and
- The transfer of certain sales employees to our Other segment from this segment in 2016.

## Interest Expense, Net

Our interest expense, net was \$363 million, \$376 million and \$385 million in 2017, 2016 and 2015, respectively. During 2017, the decrease in interest expense was primarily attributable to higher capitalized interest on certain projects under development and the early repayment of high-coupon senior notes and issuance of new senior notes at lower coupon interest rates in 2017. During 2016, the decrease in interest expense was primarily attributable to the impact of lower market interest rates on certain of our tax-exempt bonds, partially offset by increased borrowings under our \$2.25 billion revolving credit facility.

## Loss on Early Extinguishment of Debt

Loss on early extinguishment of debt was \$6 million, \$4 million and \$555 million in 2017, 2016 and 2015, respectively. The amount for 2015 was primarily associated with the early extinguishment of almost \$2 billion of our high-coupon senior notes through make-whole redemption and cash tender offers. We replaced substantially all of the debt extinguished with new senior notes at significantly lower coupon interest rates and extended the weighted average duration of these debt obligations. The loss on early extinguishment of debt reflected in our Consolidated Statement of Operations for 2015 includes \$122 million of charges related to make-whole redemptions and \$430 million of charges related to cash tender offers.

## Equity in Net Losses of Unconsolidated Entities

We recognized equity in net losses of unconsolidated entities of \$68 million, \$44 million and \$38 million in 2017, 2016 and 2015, respectively. The amount in 2017 includes impairment charges of \$29 million to write down equity method investments in waste diversion technology companies to their estimated fair values. The remaining losses for each period are primarily related to our noncontrolling interests in entities established to invest in and manage low-income housing properties and a refined coal facility. The tax impacts realized as a result of our investments in low-income housing properties and the refined coal facility are discussed below in *Income Tax Expense*. Refer to Notes 8 and 18 to the Consolidated Financial Statements for more information related to these investments.

## Other, Net

We recognized other, net expense of \$8 million, \$50 million and \$7 million in 2017, 2016 and 2015, respectively. The expenses for 2017, 2016 and 2015 were impacted by impairment charges of \$11 million, \$42 million and \$5 million, respectively, related to other-than-temporary declines in the value of minority-owned investments in waste diversion technology companies. In addition, we recognized \$8 million of expense during 2016 associated with the termination of our cross-currency swaps, which is discussed further in Note 7 to the Consolidated Financial Statements.

## Income Tax Expense

We recorded income tax expense of \$242 million, \$642 million and \$308 million in 2017, 2016 and 2015, respectively, resulting in effective income tax rates of 11.0%, 35.2% and 29.1% for the years ended December 31, 2017, 2016 and 2015, respectively. The comparability of our reported income taxes for the years presented is primarily affected by (i) variations in our income before income taxes, as discussed above; (ii) impacts of enactment of tax reform; (iii) federal tax credits; (iv) excess tax benefits associated with equity-based compensation transactions; (v) the tax implications of impairments; (vi) the realization of state net operating losses and credits; (vii) adjustments to our accruals and related deferred taxes and (viii) tax audit settlements. The impacts of these items are summarized below:

- Impacts of Enactment of Tax Reform The Tax Cuts and Jobs Act (the "Act") was signed into law on December 22, 2017 and is generally effective for tax years beginning January 1, 2018. The most significant impacts of the Act to the Company include a decrease in the federal corporate income tax rate from 35% to 21% and a one-time, mandatory transition tax on deemed repatriation of previously tax-deferred and unremitted foreign earnings. For the year ended December 31, 2017, we had an income tax benefit of \$529 million consisting of a net tax benefit of \$595 million for the re-measurement of our deferred income tax assets and liabilities due to the decrease in the federal corporate income tax rate, partially offset by income tax expense of \$66 million for the one-time, mandatory transition tax. See Note 8 to the Consolidated Financial Statements for more information related to the impacts of enactment of the Act.
- Investments Qualifying for Federal Tax Credits Our low-income housing properties and refined coal facility investments reduced our income tax expense by \$51 million, \$55 million and \$57 million, primarily as a result of the tax credits realized from these investments for the years ended December 31, 2017, 2016 and 2015, respectively. Refer to Note 8 to the Consolidated Financial Statements for more information related to these investments.

- Other Federal Tax Credits During 2017, 2016 and 2015, we recognized federal tax credits in addition to the tax credits realized from our investments in low-income housing properties and the refined coal facility, resulting in a reduction in our income tax expense of \$13 million, \$14 million and \$15 million, respectively.
- Equity-Based Compensation The excess tax benefits related to the vesting or exercise of equity-based compensation awards reduced our income tax expense by \$37 million for the year ended December 31, 2017. See Note 2 to the Consolidated Financial Statements for discussion of our adoption of ASU 2016-09.
- Tax Implications of Impairments Portions of the impairment charges recognized during the reported years are not deductible for tax purposes. Had the charges been fully deductible, our income tax expense would have been reduced by \$15 million, \$15 million and \$2 million for the years ended December 31, 2017, 2016 and 2015, respectively. See Note 11 to the Consolidated Financial Statements for more information related to our impairment charges.
- State Net Operating Losses and Credits During 2017, 2016 and 2015, we recognized state net operating losses
  and credits resulting in a reduction in our income tax expense of \$12 million, \$10 million and \$17 million,
  respectively.
- Adjustments to Accruals and Related Deferred Taxes Adjustments to our accruals and related deferred taxes due to the filing of our income tax returns and changes in state laws resulted in a reduction of \$5 million, \$10 million and \$18 million in our income tax expense for the years ended December 31, 2017, 2016 and 2015, respectively.
- Tax Audit Settlements The settlement of various tax audits resulted in a reduction in our income tax expense of \$2 million, \$11 million and \$10 million for the years ended December 31, 2017, 2016 and 2015, respectively.

Based on current tax laws and regulations as modified by the Act effective January 1, 2018, we expect our 2018 recurring effective tax rate will be approximately 26.0% based on projected income before income taxes, federal tax credits and other permanent items. The estimated 2018 rate incorporates the benefit of the reduction in the federal corporate income tax rate to 21%, as well as the impacts of other less material provisions included in the Act.

## Landfill and Environmental Remediation Discussion and Analysis

We owned or operated 244 solid waste and five secure hazardous waste landfills as of December 31, 2017 and 243 solid waste and five secure hazardous waste landfills as of December 31, 2016. For these landfills, the following table reflects changes in capacity, as measured in tons of waste, for the years ended December 31 and remaining capacity, measured in cubic yards of waste, as of December 31 (in millions):

		2017		2016				
	Remaining			Remaining				
	Permitted	Expansion	Total	Permitted	Expansion	Total		
	Capacity	Capacity	Capacity	Capacity	Capacity	Capacity		
Balance as of beginning of year (in tons)	4,754	219	4,973	4,728	304	5,032		
Acquisitions, divestitures, newly permitted landfills and								
closures	6	_	6	_	_	_		
Changes in expansions pursued (a)	_	65	65	_	77	77		
Expansion permits granted (b)	98	(98)		166	(166)			
Airspace consumed	(112)	_	(112)	(104)	_	(104)		
Changes in engineering estimates and other (c)	53		53	(36)	4	(32)		
Balance as of end of year (in tons)	4,799	186	4,985	4,754	219	4,973		
Balance as of end of year (in cubic yards)	4,815	169	4,984	4,787	200	4,987		

<sup>(</sup>a) Amounts reflected here relate to the combined impacts of (i) new expansions pursued; (ii) increases or decreases in the airspace being pursued for ongoing expansion efforts; (iii) adjustments for differences between the airspace being pursued and airspace granted and (iv) decreases due to decisions to no longer pursue expansion permits, if any.

- (b) We received expansion permits at nine of our landfills during 2017 and 13 of our landfills during 2016, demonstrating our continued success in working with municipalities and regulatory agencies to expand the disposal capacity of our existing landfills.
- (c) Changes in engineering estimates can result in changes to the estimated available remaining capacity of a landfill or changes in the utilization of such landfill capacity, affecting the number of tons that can be placed in the future. Estimates of the amount of waste that can be placed in the future are reviewed annually by our engineers and are based on a number of factors, including standard engineering techniques and site-specific factors such as current and projected mix of waste type; initial and projected waste density; estimated number of years of life remaining; depth of underlying waste; anticipated access to moisture through precipitation or recirculation of landfill leachate and operating practices. We continually focus on improving the utilization of airspace through efforts that may include recirculating landfill leachate where allowed by permit; optimizing the placement of daily cover materials and increasing initial compaction through improved landfill equipment, operations and training.

The tons received at our landfills in 2017 and 2016 are shown below (tons in thousands):

	2017				2016			
	# of Sites	Total Tons	Tons per Day	# of Sites	Total Tons	Tons per Day		
Solid waste landfills	244 (a)	112,849	415	243	104,913	384		
Hazardous waste landfills	5	584	2	5	646	2		
	249	113,433	417	248	105,559	386		
Solid waste landfills closed, divested or contract expired								
during related year	1	139		2				
		113,572 (t	)		105,559 (t	)		

- (a) In 2017, we acquired two landfills and we closed one landfill.
- (b) These amounts include 1.8 million tons and 1.2 million tons as of December 31, 2017 and 2016, respectively, that were received at our landfills but were used for beneficial purposes and generally were redirected from the permitted airspace to other areas of the landfill. Waste types that are frequently identified for beneficial use include green waste for composting and clean dirt for on-site construction projects.

When a landfill we own or operate receives certification of closure from the applicable regulatory agency, we generally transfer the management of the site, including any remediation activities, to our closed sites management group. As of December 31, 2017, our closed sites management group managed 204 closed landfills.

Based on remaining permitted airspace as of December 31, 2017 and projected annual disposal volumes, the weighted average remaining landfill life for all of our owned or operated landfills is approximately 43 years. Many of our landfills have the potential for expanded disposal capacity beyond what is currently permitted. We monitor the availability of permitted disposal capacity at each of our landfills and evaluate whether to pursue an expansion at a given landfill based on estimated future waste volumes, disposal prices, construction and operating costs, remaining capacity and likelihood of obtaining an expansion permit. We are seeking expansion permits at 15 of our landfills that meet the expansion criteria outlined in the *Critical Accounting Estimates and Assumptions* — *Landfills* section above. Although no assurances can be made that all future expansions will be permitted or permitted as designed, the weighted average remaining landfill life for all owned or operated landfills is approximately 45 years when considering remaining permitted airspace, expansion airspace and projected annual disposal volume.

The number of landfills owned or operated as of December 31, 2017, segregated by their estimated operating lives based on remaining permitted and expansion capacity and projected annual disposal volume, was as follows:

	# of Landfills
0 to 5 years	26
6 to 10 years	21
11 to 20 years	27
21 to 40 years	74
41+ years	101
Total	249 (a)

(a) Of the 249 landfills, 201 are owned, 35 are operated under lease agreements and 13 are operated under other contractual agreements. For the landfills not owned, we are usually responsible for final capping, closure and post-closure obligations.

As of December 31, 2017, we have 15 landfills which are not currently accepting waste. During the year ended December 31, 2017, we performed tests of recoverability for seven of these landfills with an aggregate net recorded capitalized landfill asset cost of \$282 million, for which the undiscounted expected future cash flows resulting from our probability-weighted estimation approach exceeded the carrying values. We did not perform recoverability tests for the remaining eight landfills as the net recorded capitalized landfill asset cost was immaterial.

Landfill Assets — We capitalize various costs that we incur to prepare a landfill to accept waste. These costs generally include expenditures for land (including the landfill footprint and required landfill buffer property), permitting, excavation, liner material and installation, landfill leachate collection systems, landfill gas collection systems, environmental monitoring equipment for groundwater and landfill gas, directly related engineering, capitalized interest, and on-site road construction and other capital infrastructure costs. The cost basis of our landfill assets also includes estimates of future costs associated with landfill final capping, closure and post-closure activities, which are discussed further below.

The changes to the cost basis of our landfill assets and accumulated landfill airspace amortization for the year ended December 31, 2017 are reflected in the table below:

	Co	st Basis of		umulated ïll Airspace		
	Lan	dfill Assets	Ame	ortization	Land	fill Assets
December 31, 2016	\$	14,276	\$	(8,340)	\$	5,936
Capital additions		498				498
Asset retirement obligations incurred and capitalized		100				100
Acquisitions		84		_		84
Amortization of landfill airspace		_		(497)		(497)
Foreign currency translation		71		(25)		46
Asset retirements and other adjustments		(125)		74		(51)
December 31, 2017	\$	14,904	\$	(8,788)	\$	6,116

As of December 31, 2017, we estimate that we will spend approximately \$400 million in 2018, and approximately \$1 billion in 2019 and 2020 combined, for the construction and development of our landfill assets. The specific timing of landfill capital spending is dependent on future events and spending estimates are subject to change due to fluctuations in landfill waste volumes, changes in environmental requirements and other factors impacting landfill operations.

Landfill and Environmental Remediation Liabilities — As we accept waste at our landfills, we incur significant asset retirement obligations, which include liabilities associated with landfill final capping, closure and post-closure activities. These liabilities are accounted for in accordance with authoritative guidance on accounting for asset retirement obligations and are discussed in Note 3 to the Consolidated Financial Statements. We also have liabilities for the remediation of properties that have incurred environmental damage, which generally was caused by operations or for damage caused by

conditions that existed before we acquired operations or a site. We recognize environmental remediation liabilities when we determine that the liability is probable and the estimated cost for the likely remedy can be reasonably estimated.

The changes to landfill and environmental remediation liabilities for the year ended December 31, 2017 are reflected in the table below (in millions):

		Enviro	onmental	
I	andfill	Remediation		
\$	1,576	\$	246	
	69		_	
	(105)		(21)	
	92		4	
	33		23	
	10		(1)	
\$	1,675	\$	251	
	\$ \$	69 (105) 92 33 10	Landfill Remo \$ 1,576 \$ 69 (105) 92 33 10	

- (a) The amount reported for our landfill liabilities includes (i) a net increase of \$19 million related to our year-end annual review of landfill final capping, closure and post-closure obligations and (ii) an increase of \$12 million primarily for enhancements of our gas and leachate collection systems at certain closed landfills.
- (b) Our environmental remediation liabilities include \$11 million of charges to adjust our subsidiary's estimated potential share of an environmental remediation liability and related costs for a closed site in Harris County, Texas, as discussed in Note 10 to the Consolidated Financial Statements.

Landfill Operating Costs — The following table summarizes our landfill operating costs for the years ended December 31 (in millions):

	2017		2017 20			2017 2016		2	2015
Interest accretion on landfill liabilities	\$	92	\$	91	\$	89			
Interest accretion on and discount rate adjustments to environmental remediation									
liabilities and recovery assets		3		_		1			
Leachate and methane collection and treatment (a)		143		176		96			
Landfill remediation costs		14		15		5			
Other landfill site costs		76		70		64			
Total landfill operating costs	\$	328	\$	352	\$	255			

(a) Leachate management costs have increased in 2017 and 2016 as compared to 2015 because, in certain parts of the country, we are transporting leachate further in order to reach treatment facilities, the third-party fees charged for treatment of waste water have increased and the volume of leachate being disposed has increased.

Amortization of Landfill Airspace — Amortization of landfill airspace, which is included as a component of depreciation and amortization expenses, includes the following:

- the amortization of landfill capital costs, including (i) costs that have been incurred and capitalized and
   (ii) estimated future costs for landfill development and construction required to develop our landfills to their
   remaining permitted and expansion airspace; and
- the amortization of asset retirement costs arising from landfill final capping, closure and post-closure obligations, including (i) costs that have been incurred and capitalized and (ii) projected asset retirement costs.

Amortization expense is recorded on a units-of-consumption basis, applying cost as a rate per ton. The rate per ton is calculated by dividing each component of the amortizable basis of a landfill by the number of tons needed to fill the corresponding asset's airspace. Landfill capital costs and closure and post-closure asset retirement costs are generally incurred to support the operation of the landfill over its entire operating life and are, therefore, amortized on a per-ton basis using a landfill's total airspace capacity. Final capping asset retirement costs are related to a specific final capping event

and are, therefore, amortized on a per-ton basis using each discrete final capping event's estimated airspace capacity. Accordingly, each landfill has multiple per-ton amortization rates.

The following table presents our landfill airspace amortization expense on a per-ton basis for the years ended December 31:

	20	17	- 2	2016	2015
Amortization of landfill airspace (in millions)	\$	497	\$	428	\$ 409
Tons received, net of redirected waste (in millions)		112		104	97
Average landfill airspace amortization expense per ton	\$	4.44	\$	4.10	\$ 4.21

Different per-ton amortization rates are applied at each of our 249 landfills, and per-ton amortization rates vary significantly from one landfill to another due to (i) inconsistencies that often exist in construction costs and provincial, state and local regulatory requirements for landfill development and landfill final capping, closure and post-closure activities and (ii) differences in the cost basis of landfills that we develop versus those that we acquire. Accordingly, our landfill airspace amortization expense measured on a per-ton basis can fluctuate due to changes in the mix of volumes we receive across the Company each year.

## **Liquidity and Capital Resources**

We continually monitor our actual and forecasted cash flows, our liquidity and our capital resources, enabling us to plan for our present needs and fund unbudgeted business activities that may arise during the year as a result of changing business conditions or new opportunities. In addition to our working capital needs for the general and administrative costs of our ongoing operations, we have cash requirements for: (i) the construction and expansion of our landfills; (ii) additions to and maintenance of our trucking fleet and landfill equipment; (iii) construction, refurbishments and improvements at our MRFs; (iv) the container and equipment needs of our operations; (v) final capping, closure and post-closure activities at our landfills; (vi) the repayment of debt, payment of interest and discharging of other obligations and (vii) capital expenditures, acquisitions and investments in assets that support our strategy of continuous improvement through efficiency and innovation. We also are committed to providing our shareholders with a return on their investment through dividend payments and our common stock repurchase program.

## Summary of Cash and Cash Equivalents, Restricted Trust and Escrow Accounts and Debt Obligations

The following is a summary of our cash and cash equivalents, restricted trust and escrow accounts and debt balances as of December 31 (in millions):

	2017	2016
Cash and cash equivalents	\$ 22	\$ 32
Restricted trust and escrow accounts:		
Insurance reserves	\$ 203	\$ _
Final capping, closure, post-closure and environmental remediation funds	101	95
Other	 15	 10
Total restricted trust and escrow accounts	\$ 319	\$ 105
Debt:		
Current portion	\$ 739	\$ 417
Long-term portion	8,752	8,893
Total debt	\$ 9,491	\$ 9,310

We use long-term borrowings in addition to the cash we generate from operations as part of our overall financial strategy to support and grow our business. We primarily use senior notes and tax-exempt bonds to borrow on a long-term basis, but we also use other instruments and facilities, when appropriate. The components of our borrowings as of December 31, 2017 are described in Note 7 to the Consolidated Financial Statements.

Changes in our outstanding debt balances from December 31, 2016 to December 31, 2017 were primarily attributable to (i) net debt borrowings of \$172 million and (ii) the impacts of other non-cash changes in our debt balances due to debt issuance costs, discounts, premiums, foreign currency translation and terminated interest rate derivatives.

As of December 31, 2017, the current portion of our long-term debt balance of \$739 million includes (i) \$515 million of short-term borrowings under our commercial paper program and (ii) \$224 million of other debt with scheduled maturities within the next 12 months, including \$167 million of tax-exempt bonds.

We have \$831 million of tax-exempt bonds with term interest rate periods that expire within the next 12 months and an additional \$328 million of variable-rate tax-exempt bonds that are supported by letters of credit. The interest rates on our variable-rate tax-exempt bonds are generally reset on either a daily or weekly basis through a remarketing process. All recent tax-exempt bond remarketings have successfully placed Company bonds with investors at market-driven rates and we currently expect future remarketings to be successful. However, if the remarketing agent is unable to remarket our bonds, the remarketing agent can put the bonds to us. In the event of a failed remarketing, we have the intent and ability to refinance these bonds on a long-term basis as supported by the forecasted available capacity under our \$2.25 billion revolving credit facility. Accordingly, we have classified these borrowings as long-term in our Consolidated Balance Sheet as of December 31, 2017.

We have credit facilities in place to support our liquidity and financial assurance needs. The following table summarizes our outstanding letters of credit, categorized by type of facility as of December 31 (in millions):

	2017	2016
\$2.25 billion revolving credit facility (a)	\$ 642	\$ 789
Other letter of credit facilities (b)	507	492
	\$ 1,149	\$ 1,281

- (a) As of December 31, 2017, we had no outstanding borrowings under our \$2.25 billion revolving credit facility maturing July 2020. We had \$642 million of letters of credit issued and \$515 million of outstanding borrowings under our commercial paper program, both supported by this facility, leaving an unused and available credit capacity of \$1,093 million as of December 31, 2017.
- (b) As of December 31, 2017, we had utilized \$507 million of other letter of credit facilities, which are both committed and uncommitted, with terms extending through December 2018.

## Summary of Cash Flow Activity

The following is a summary of our cash flows for the years ended December 31 (in millions):

	2017	2016	2015
Net cash provided by operating activities (a)	\$ 3,180	\$ 3,006	\$ 2,528
Net cash used in investing activities	\$ (1,379)	\$ (1,932)	\$ (1,608)
Net cash used in financing activities (a)	\$ (1,811)	\$ (1,081)	\$ (2,185)

(a) Prior year information has been revised to reflect the adoption of ASU 2016-09 and conform to our current year presentation. See Note 2 to the Consolidated Financial Statements for further discussion.

Net Cash Provided by Operating Activities — The most significant items affecting the comparison of our operating cash flows in 2017 as compared with 2016 are summarized below:

Increase in Earnings — Our income from operations, excluding depreciation and amortization, and asset
impairments and unusual items, increased by \$287 million in 2017, principally driven by higher earnings from our
Traditional Solid Waste and recycling businesses.

- Increase in Income Tax Payments Cash paid for income taxes was \$120 million higher in 2017, largely driven by higher earnings and timing of income tax payments.
- Cross-Currency Swaps During 2016, we terminated our cross-currency swaps associated with the anticipated cash flows of intercompany loans between WM Holdings and its wholly-owned Canadian subsidiaries, as discussed further in Note 7 to the Consolidated Financial Statements. In connection with the termination, we received cash proceeds of \$67 million, which were classified as a change in other current assets and other assets.
- Increase in Annual Incentive Plan Cash Payments Payments for our annual incentive plans are typically made in the first quarter of the year based on prior year performance. Our net cash flow from operating activities was unfavorably impacted by \$41 million due to higher annual incentive plan cash payments made in 2017.
- Changes in Assets and Liabilities, Net of Effects of Acquisitions and Divestitures Our net cash provided by operating activities was favorably impacted by changes in assets and liabilities, exclusive of the items noted above.

The most significant items affecting the comparison of our operating cash flows in 2016 as compared with 2015 are summarized below:

- Increase in Earnings Our income from operations, excluding depreciation and amortization, and asset impairments and unusual items, increased by \$337 million, principally driven by higher earnings from our Traditional Solid Waste and recycling businesses. Our 2015 results included \$51 million of charges for the withdrawal from certain underfunded Multiemployer Pension Plans.
- Cross-Currency Swaps During 2016, we terminated our cross-currency swaps and received cash proceeds of \$67 million, which were classified as a change in other current assets and other assets.
- Decrease in Annual Incentive Plan Cash Payments Our net cash provided by operating activities was favorably
  impacted by \$46 million as the annual incentive cash payments made in 2016 were lower than the cash payments
  made in 2015.
- Multiemployer Pension Plan Settlements In 2015, we paid approximately \$60 million for the withdrawal from certain underfunded Multiemployer Pension Plans.
- Increase in Income Tax Payments Cash paid for income taxes was \$23 million higher largely driven by higher earnings in 2016.
- Changes in Assets and Liabilities, Net of Effects of Acquisitions and Divestitures Our net cash provided by operating activities was favorably impacted by changes in assets and liabilities, exclusive of the items noted above.

Net Cash Used in Investing Activities — The most significant items affecting the comparison of our investing cash flows for the periods presented are summarized below:

- Capital Expenditures We used \$1,509 million, \$1,339 million and \$1,233 million for capital expenditures in 2017, 2016 and 2015, respectively. The Company continues to maintain a disciplined focus on capital management and fluctuations in our capital expenditures are a result of new business opportunities, growth in our existing business, the timing of replacement of aging assets and investment in assets that support our strategy of continuous improvement through efficiency and innovation.
- Net Receipts from Restricted Funds Net cash received in 2017 from our restricted trust and escrow accounts of \$243 million primarily relates to \$172 million of cash received from tax-exempt bond trust funds and \$75 million for reimbursement of insurance claims from a wholly-owned insurance captive. The tax-exempt bond trust funds received during 2017 relate to two issuances, for which the cash proceeds from the issuances are recognized as an investing cash inflow as qualifying capital expenditures are reimbursed from the trust fund. These activities were treated as a non-cash financing activity when borrowed. See Notes 3 and 7 to the Consolidated Financial Statements for additional information related to these restricted trust and escrow accounts.

Net cash received in 2015 from our restricted trust and escrow accounts of \$51 million relates to our replacement of funded trust and escrow accounts with alternative forms of financial assurance.

- Acquisitions Our spending on acquisitions was \$200 million, \$611 million and \$554 million in 2017, 2016 and 2015, respectively. Our 2017 acquisitions related to our Solid Waste business. In 2016, \$525 million of our spending on acquisitions was for certain operations and business assets of SWS. The remainder of our 2016 acquisition spending primarily related to our Solid Waste business. In 2015, \$400 million of our spending on acquisitions was for the collection and disposal operations of Deffenbaugh. The remainder of our 2015 acquisition spending primarily related to our Solid Waste business. See Note 17 to the Consolidated Financial Statements for additional information related to our acquisitions. We continue to focus on accretive acquisitions and growth opportunities that will enhance and expand our existing service offerings.
- Proceeds from Divestitures Proceeds from divestitures of businesses and other assets (net of cash divested) were \$99 million in 2017, \$43 million in 2016 and \$145 million in 2015. In 2017, 2016 and 2015, \$62 million, \$2 million and \$79 million of these divestitures, respectively, were made as part of our continuous focus on improving or divesting certain non-strategic or underperforming operations, with the remaining amounts generally related to the sale of fixed assets.

Net Cash Used in Financing Activities — The most significant items affecting the comparison of our financing cash flows for the periods presented are summarized below:

• Debt Borrowings (Repayments) — The following summarizes our cash borrowings and repayments of debt (excluding our commercial paper program discussed below) for the years ended December 31 (in millions):

	2017		2017 2016		2015
Borrowings:					
\$2.25 billion revolving credit facility	\$	25	\$	1,889	\$ 100
Canadian term loan and revolving credit facility		9		347	11
Senior notes		745		496	1,781
Tax-exempt bonds		124		143	262
Other debt		124		182	183
	\$	1,027	\$	3,057	\$ 2,337
Repayments:					
\$2.25 billion revolving credit facility	\$	(728)	\$	(1,483)	\$ (80)
Canadian term loan and revolving credit facility		(146)		(193)	(130)
Senior notes		(590)		(510)	(1,970)
Tax-exempt bonds		(251)		(289)	(341)
Other debt		(192)		(207)	(243)
	\$	(1,907)	\$	(2,682)	\$ (2,764)
Net cash borrowings (repayments)	\$	(880)	\$	375	\$ (427)

During 2017, we had \$452 million of non-cash financing activities due to the initial funding of a wholly-owned insurance captive and tax-exempt bond borrowings. During 2016 and 2015, we did not have any significant non-cash investing and financing activities. Non-cash investing and financing activities are generally excluded from the Consolidated Statements of Cash Flows.

Refer to Note 7 to the Consolidated Financial Statements for additional information related to our debt borrowings and repayments.

- Commercial Paper Program During 2017, we had net cash borrowings of \$513 million (net of the related discount on issuance) under our commercial paper program. Refer to Note 7 to the Consolidated Financial Statements for additional information related to our commercial paper program.
- Common Stock Repurchase Program For the periods presented, all share repurchases have been made in accordance with financial plans approved by our Board of Directors.

We paid \$750 million, \$725 million and \$600 million for common stock repurchases during 2017, 2016 and 2015, respectively. See Note 13 to the Consolidated Financial Statements for additional information.

We announced in December 2017 that the Board of Directors has authorized up to \$1.25 billion in future share repurchases. Any future share repurchases will be made at the discretion of management and will depend on factors similar to those considered by the Board of Directors in making dividend declarations.

Cash Dividends — For the periods presented, all dividends have been declared by our Board of Directors.

We paid aggregate cash dividends of \$750 million, \$726 million and \$695 million during 2017, 2016 and 2015, respectively. The increase in dividend payments is due to our quarterly per share dividend increasing from \$0.385 in 2015 to \$0.41 in 2016 and to \$0.425 in 2017 and has been offset, in part, by a reduction in our common stock outstanding as a result of our common stock repurchase program.

In December 2017, we announced that our Board of Directors expects to increase the quarterly dividend from \$0.425 to \$0.465 per share for dividends declared in 2018. However, all future dividend declarations are at the discretion of the Board of Directors and depend on various factors, including our net earnings, financial condition, cash required for future business plans and other factors the Board of Directors may deem relevant.

- Proceeds from the Exercise of Common Stock Options The exercise of common stock options generated financing cash inflows of \$95 million, \$63 million and \$77 million during 2017, 2016 and 2015, respectively. The year-over-year changes are generally due to the number of stock options exercised and the exercise price of those options.
- Premiums Paid on Early Extinguishment of Debt Premiums paid on early extinguishment of debt were \$8 million, \$2 million and \$555 million in 2017, 2016 and 2015, respectively. The amount for 2015 was primarily related to (i) make-whole premiums paid on certain senior notes that the Company decided to redeem in advance of their scheduled maturities and (ii) premiums paid to tender certain high-coupon senior notes. See Note 7 to the Consolidated Financial Statements for further discussion of these transactions.

## **Summary of Contractual Obligations**

The following table summarizes our contractual obligations as of December 31, 2017 and the anticipated effect of these obligations on our liquidity in future years (in millions):

	2018		2019		2020	2021	2022	2022 Thereafter		Total
Recorded Obligations:										
Expected environmental liabilities: (a)										
Final capping, closure and post-closure	\$ 123	3	\$ 178	\$	177	\$ 125	\$ 103	\$ 2,5	49	\$ 3,260
Environmental remediation	23	3	23		66	36	11		87	251
	150	5	201		243	161	114	2,6	36	3,511
Debt payments (b) (c) (d)	73′	7	302		754	549	592	6,6	67	9,601
Unrecorded Obligations: (e)										
Interest on debt (f)	32	7	320		303	276	261	2,2	03	3,690
Non-cancelable operating lease obligations	10	1	83		72	54	31	2	48	589
Estimated unconditional purchase obligations (g)	14.	3	113		95	87	20	3	25	783
Anticipated liquidity impact as of December 31, 2017	\$ 1,464	1	\$ 1,019	\$	1,467	\$ 1,127	\$ 1,018	\$ 12,0	79	\$18,174

<sup>(</sup>a) Environmental liabilities include final capping, closure, post-closure and environmental remediation costs recorded in our Consolidated Balance Sheet as of December 31, 2017, without the impact of discounting and inflation. Our recorded environmental liabilities for final capping, closure and post-closure will increase as we continue to place additional tons within the permitted airspace at our landfills.

- (b) These amounts represent the scheduled principal payments related to our long-term debt, excluding interest.
- (c) Our debt obligations as of December 31, 2017 include \$831 million of tax-exempt bonds with term interest rate periods that expire within the next 12 months. If the remarketings of our bonds are unsuccessful, then the bonds can

be put to us, requiring immediate repayment. We have classified the anticipated cash flows for these contractual obligations based on the scheduled maturity of the borrowings for purposes of this disclosure. For additional information regarding the classification of these borrowings in our Consolidated Balance Sheet as of December 31, 2017, refer to Note 7 to the Consolidated Financial Statements.

- (d) Our recorded debt obligations include non-cash adjustments associated with debt issuance costs, discounts, premiums and fair value adjustments attributable to terminated interest rate derivatives. These amounts have been excluded as they will not impact our liquidity in future periods.
- (e) Our unrecorded obligations represent operating lease obligations and purchase commitments from which we expect to realize an economic benefit in future periods and interest payable on our debt. We have also made certain guarantees, as discussed in Note 10 to the Consolidated Financial Statements, that we do not expect to materially affect our current or future financial position, results of operations or liquidity.
- (f) Interest on our fixed-rate debt was calculated based on contractual rates and interest on our variable-rate debt was calculated based on interest rates as of December 31, 2017. For debt balances outstanding under our commercial paper program, we have reflected limited interest amounts due to the short-term nature of the borrowings. For debt balances outstanding under our Canadian term loan, we have reflected interest based on the current outstanding principal assuming the amount remains unchanged through maturity. As of December 31, 2017, we had \$61 million of accrued interest related to our debt obligations.
- (g) Our unconditional purchase obligations are for various contractual obligations that we generally incur in the ordinary course of our business. Certain of our obligations are quantity driven. For contracts that require us to purchase minimum quantities of goods or services, we have estimated our future minimum obligations based on the current market values of the underlying products or services. Accordingly, the amounts reported in the table are subject to change and actual cash flow obligations in the near future may be different. See Note 10 to the Consolidated Financial Statements for discussion of the nature and terms of our unconditional purchase obligations.

## **Off-Balance Sheet Arrangements**

We have financial interests in unconsolidated variable interest entities as discussed in Note 18 to the Consolidated Financial Statements. Additionally, we are party to guarantee arrangements with unconsolidated entities as discussed in the *Guarantees* section of Note 10 to the Consolidated Financial Statements. These arrangements have not materially affected our financial position, results of operations or liquidity during the year ended December 31, 2017, nor are they expected to have a material impact on our future financial position, results of operations or liquidity.

## New Accounting Standards Pending Adoption

Income Taxes — In October 2016, the FASB issued ASU 2016-16 associated with the timing of recognition of income taxes for intra-entity transfers of assets other than inventory. The amended guidance requires the recognition of income taxes when the transfer of the asset occurs, which replaces current GAAP that defers the recognition of income taxes until the transferred asset is sold to a third party or otherwise recovered through use. The amended guidance is effective for the Company on January 1, 2018 and will not have a material impact on our consolidated financial statements.

Statement of Cash Flows — In August 2016, the FASB issued ASU 2016-15 associated with the classification of certain cash receipts and cash payments in the statement of cash flows. In November 2016, the FASB issued ASU 2016-18 associated with the presentation of restricted cash and cash equivalents in the statement of cash flows. The objective of both amendments was to reduce existing diversity in practice. The amended guidance is effective for the Company on January 1, 2018 and, upon adoption, the principal change for the Company will be in the presentation of restricted cash and cash equivalents in the statement of cash flows, which will include substantially all of the restricted trust and escrow accounts reflected on our Consolidated Balance Sheets.

Financial Instrument Credit Losses — In June 2016, the FASB issued ASU 2016-13 associated with the measurement of credit losses on financial instruments. The amended guidance replaces the current incurred loss impairment methodology of recognizing credit losses when a loss is probable, with a methodology that reflects expected credit losses

and requires consideration of a broader range of reasonable and supportable information to assess credit loss estimates. The amended guidance is effective for the Company on January 1, 2020, with early adoption permitted beginning January 1, 2019. We are assessing the provisions of this amended guidance and evaluating the impact on our consolidated financial statements.

Leases — In February 2016, the FASB issued ASU 2016-02 associated with lease accounting. The amended guidance requires the recognition of lease assets and lease liabilities on the balance sheet for those leases with terms in excess of 12 months and currently classified as operating leases. The disclosure of key information about leasing arrangements will also be required. The amended guidance is effective for the Company on January 1, 2019. We are assessing the provisions of this amended guidance and we have (i) formed an implementation work team; (ii) performed training for the various organizations that will be most affected by the new standard and (iii) acquired a software solution to manage and account for leases under the new standard. We are evaluating the impact of this amended guidance on our consolidated financial statements

Financial Instruments — In January 2016, the FASB issued ASU 2016-01 associated with the recognition and measurement of financial assets and liabilities. The amended guidance will require certain equity investments that are not consolidated and not accounted for under the equity method to be measured at fair value with changes in fair value recognized in net income rather than as a component of accumulated other comprehensive income (loss). The amended guidance is effective for the Company on January 1, 2018 and will not have a material impact on our consolidated financial statements.

Revenue Recognition — In May 2014, the FASB issued ASU 2014-09 associated with revenue recognition. The amended guidance requires companies to recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. Additionally, the amendments will require enhanced qualitative and quantitative disclosures regarding customer contracts. The amended guidance associated with revenue recognition is effective for the Company on January 1, 2018. The amended guidance may be applied retrospectively for all periods presented ("full retrospective method") or retrospectively with the cumulative effect of initially applying the amended guidance recognized at the date of initial adoption ("modified retrospective method"). The Company is currently planning to adopt the amended guidance using the modified retrospective method as of January 1, 2018.

To assess the impact of the standard, we utilized internal resources to lead the implementation effort and supplemented them with external resources. Our internal resources read the amended guidance, attended trainings and consulted with other accounting professionals to assist with interpretation of the amended guidance. Surveys were sent to and returned by all operating segments to assess the potential impact of the amended guidance and to tailor specific procedures to evaluate the potential impact. Based on the results of these surveys, we judgmentally selected a sample of contracts based on size and specifically identified contract traits that could be accounted for differently under the amended guidance. We also selected a representative sample of contracts to corroborate the survey results.

Based on our work to date, we believe we have identified all material contract types and costs that may be impacted by this amended guidance. We currently do not expect the amended guidance to have a material impact on operating revenues. However, upon adoption of the amended guidance, certain sales incentives will be capitalized and amortized to selling, general and administrative expenses over the expected life of the customer relationship. Under current guidance, sales incentives are expensed as earned to selling, general and administrative expenses. Additionally, the amended guidance resulted in a change in who we identify as a customer for certain arrangements. We anticipate payments to these customers will be a reduction in operating revenues. Under current guidance, these payments are recorded as operating expenses.

## Inflation

While inflationary increases in costs can affect our income from operations margins, we believe that inflation generally has not had, and in the near future is not expected to have, any material adverse effect on our results of operations. However, as of December 31, 2017, approximately 35% of our collection revenues are generated under long-term

agreements with price adjustments based on various indices intended to measure inflation. Additionally, management's estimates associated with inflation have had, and will continue to have, an impact on our accounting for landfill and environmental remediation liabilities.

## Item 7A. Quantitative and Qualitative Disclosures about Market Risk.

In the normal course of business, we are exposed to market risks, including changes in interest rates, certain commodity prices and Canadian currency rates. From time to time, we use derivatives to manage some portion of these risks. The Company had no derivatives outstanding as of December 31, 2017.

Interest Rate Exposure — Our exposure to market risk for changes in interest rates relates primarily to our financing activities. As of December 31, 2017, we had \$9.5 billion of long-term debt, excluding the impacts of accounting for debt issuance costs, discounts, premiums and fair value adjustments attributable to terminated interest rate derivatives. We have \$1.8 billion of debt that is exposed to changes in market interest rates within the next 12 months comprised of (i) \$831 million of tax-exempt bonds with term interest rate periods scheduled to expire within the next 12 months; (ii) \$515 million of outstanding borrowings under our commercial paper program; (iii) \$328 million of tax-exempt bonds that are subject to repricing on either a daily or weekly basis through a remarketing process and (iv) \$113 million of outstanding borrowings under our Canadian term loan. We currently estimate that a 100-basis point increase in the interest rates of our outstanding variable-rate debt obligations would increase our 2018 interest expense by \$15 million.

Our remaining outstanding debt obligations have fixed interest rates through either the scheduled maturity of the debt or, for certain of our fixed-rate tax-exempt bonds, through the end of a term interest rate period that exceeds 12 months. The fair value of our fixed-rate debt obligations can increase or decrease significantly if market interest rates change.

We performed a sensitivity analysis to determine how market rate changes might affect the fair value of our market risk-sensitive debt instruments. This analysis is inherently limited because it reflects a singular, hypothetical set of assumptions. Actual market movements may vary significantly from our assumptions. An instantaneous, 100-basis point increase in interest rates across all maturities attributable to these instruments would have decreased the fair value of our debt by approximately \$635 million as of December 31, 2017.

We are also exposed to interest rate market risk from our cash and cash equivalent balances, as well as assets held in restricted trust funds and escrow accounts. These assets are generally invested in high quality, liquid instruments including money market funds that invest in U.S. government obligations with original maturities of three months or less. We also invest a portion of our restricted trust and escrow account balances in fixed-income securities, including U.S. Treasury securities, U.S. agency securities, municipal securities and mortgage- and asset-backed securities. We believe that our exposure to changes in fair value of these assets due to interest rate fluctuations is insignificant as the fair value generally approximates our cost basis.

Commodity Price Exposure — In the normal course of our business, we are subject to operating agreements that expose us to market risks arising from changes in the prices for commodities such as diesel fuel; recyclable materials, including old corrugated cardboard, old newsprint and plastics; and electricity, which generally correlates with natural gas prices in many of the markets in which we operate. We attempt to manage these risks through operational strategies that focus on capturing our costs in the prices we charge our customers for the services provided. Accordingly, as the market prices for these commodities increase or decrease, our revenues may also increase or decrease.

Currency Rate Exposure — We have operations in Canada as well as certain support functions in India. Where significant, we have quantified and described the impact of foreign currency translation on components of income, including operating revenue and operating expenses. However, the impact of foreign currency has not materially affected our results of operations.

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## Item 8. Financial Statements and Supplementary Data.

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## CONSOLIDATED FINANCIAL STATEMENTS

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## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders of Waste Management, Inc.

## Opinion on Internal Control over Financial Reporting

We have audited Waste Management, Inc.'s internal control over financial reporting as of December 31, 2017, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Waste Management, Inc. (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2017, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the 2017 consolidated financial statements of the Company, and our report dated February 15, 2018 expressed an unqualified opinion thereon.

## **Basis for Opinion**

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

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

## **Definition and Limitations of Internal Control Over Financial Reporting**

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

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

/s/ ERNST & YOUNG LLP

Houston, Texas February 15, 2018

## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders of Waste Management, Inc.

## **Opinion on the Financial Statements**

We have audited the accompanying consolidated balance sheets of Waste Management, Inc. (the Company) as of December 31, 2017 and 2016, and the related consolidated statements of operations, comprehensive income, cash flows, and changes in equity for each of the three years in the period ended December 31, 2017, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2017 and 2016, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2017, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2017, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), and our report dated February 15, 2018 expressed an unqualified opinion thereon.

## **Basis for Opinion**

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ ERNST & YOUNG LLP

We have served as the Company's auditor since 2002.

Houston, Texas February 15, 2018

# CONSOLIDATED BALANCE SHEETS (In Millions, Except Share and Par Value Amounts)

		Decem	ber 31	Ι,
		2017		2016
ACCEPTED				
ASSETS Current assets:				
Cash and cash equivalents	\$	22	\$	32
Accounts receivable, net of allowance for doubtful accounts of \$21 and \$24, respectively	Ф	1,805	Ф	1,700
Other receivables		569		432
Parts and supplies		96		90
Other assets		132		122
Total current assets	_	2.624	_	2,376
Property and equipment, net of accumulated depreciation and amortization of \$17,704 and		2,02 1		2,570
\$17,152, respectively		11,559		10,950
Goodwill		6,247		6,215
Other intangible assets, net		547		591
Restricted trust and escrow accounts		319		105
Investments in unconsolidated entities		269		320
Other assets		264		302
Total assets	\$	21,829	\$	20,859
LIABILITIES AND EQUITY				
Current liabilities:				
Accounts payable	\$	1,040	\$	799
Accrued liabilities		980		1,085
Deferred revenues		503		493
Current portion of long-term debt		739		417
Total current liabilities		3,262		2,794
Long-term debt, less current portion		8,752		8,893
Deferred income taxes		1,248		1,482
Landfill and environmental remediation liabilities		1,770		1,675
Other liabilities		755		695
Total liabilities		15,787		15,539
Commitments and contingencies				
Equity:				
Waste Management, Inc. stockholders' equity:				
Common stock, \$0.01 par value; 1,500,000,000 shares authorized; 630,282,461 shares				
issued		4.022		6
Additional paid-in capital		4,933		4,850
Retained earnings Accumulated other comprehensive income (loss)		8,588 8		7,388 (80)
Treasury stock at cost, 196,963,558 and 190,966,584 shares, respectively		(7,516)		(6,867)
Total Waste Management, Inc. stockholders' equity	_	6,019	_	5,297
Noncontrolling interests		23		23
Total equity	_	6.042	_	5,320
1 7	\$	21,829	\$	20.859
Total liabilities and equity	Ф	21,829	Ф	20,839

## CONSOLIDATED STATEMENTS OF OPERATIONS (In Millions, Except per Share Amounts)

	Years Ended December 31,								
		2017		2016		2015			
Operating revenues	\$	14,485	\$	13,609	\$	12,961			
Costs and expenses:									
Operating		9,021		8,486		8,231			
Selling, general and administrative		1,468		1,410		1,343			
Depreciation and amortization		1,376		1,301		1,245			
Restructuring		_		4		15			
(Income) expense from divestitures, asset impairments and unusual items, net		(16)		112		82			
		11,849		11,313		10,916			
Income from operations		2,636		2,296		2,045			
Other income (expense):						<u>.</u>			
Interest expense, net		(363)		(376)		(385)			
Loss on early extinguishment of debt		(6)		(4)		(555)			
Equity in net losses of unconsolidated entities		(68)		(44)		(38)			
Other, net		(8)		(50)		(7)			
		(445)		(474)		(985)			
Income before income taxes		2,191		1,822		1,060			
Income tax expense		242		642		308			
Consolidated net income		1,949		1,180		752			
Less: Net income (loss) attributable to noncontrolling interests		_		(2)		(1)			
Net income attributable to Waste Management, Inc.	\$	1,949	\$	1,182	\$	753			
Basic earnings per common share	\$	4.44	\$	2.66	\$	1.66			
Diluted earnings per common share	\$	4.41	\$	2.65	\$	1.65			
Cash dividends declared per common share	\$	1.70	\$	1.64	\$	1.54			

## CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (In Millions)

	Years Ended December 31,						
	2017	2016		2015			
Consolidated net income	\$ 1,949	\$	1,180	\$	752		
Other comprehensive income (loss), net of tax:	 						
Derivative instruments, net	7		12		9		
Available-for-sale securities, net	2		5		(2)		
Foreign currency translation adjustments	76		28		(159)		
Post-retirement benefit obligation, net	3		2		2		
Other comprehensive income (loss), net of tax	 88		47		(150)		
Comprehensive income	2,037		1,227		602		
Less: Comprehensive income (loss) attributable to noncontrolling interests	 		(2)		(1)		
Comprehensive income attributable to Waste Management, Inc.	\$ 2,037	\$	1,229	\$	603		

# CONSOLIDATED STATEMENTS OF CASH FLOWS (In Millions)

		1.				
	20			Decemb 016		2015
Cash flows from operating activities:						
Consolidated net income	\$ 1	,949	\$	1,180	\$	752
Adjustments to reconcile consolidated net income to net cash provided by operating						
activities:						
Depreciation and amortization	1	,376		1,301		1,245
Deferred income tax expense (benefit)		(251)		73		30
Interest accretion on landfill liabilities		92		91		89
Interest accretion on and discount rate adjustments to environmental remediation						
liabilities and recovery assets		3		_		1
Provision for bad debts		43		42		36
Equity-based compensation expense		101		90		72
Net gain on disposal of assets		(20)		(24)		(18)
Expense from divestitures, asset impairments and other, net		43		110		87
Equity in net losses of unconsolidated entities, net of dividends		39		44		42
Loss on early extinguishment of debt		6		4		555
Change in operating assets and liabilities, net of effects of acquisitions and						
divestitures:						
Receivables		(271)		(78)		(178)
Other current assets		(20)		(12)		16
Other assets		4		78		(7)
Accounts payable and accrued liabilities		126		192		(97)
Deferred revenues and other liabilities		(40)		(85)		(97)
Net cash provided by operating activities	3	,180		3,006		2,528
Cash flows from investing activities:						
Acquisitions of businesses, net of cash acquired		(200)		(611)		(554)
Capital expenditures	(1	,509)	(	1,339)		(1,233)
Proceeds from divestitures of businesses and other assets (net of cash divested)	·	99	,	43		145
Net receipts from restricted trust and escrow accounts		243		_		51
Other, net		(12)		(25)		(17)
Net cash used in investing activities	(1	,379)	(	1,932)		(1,608)
Cash flows from financing activities:						
New borrowings	1	,027	1	3,057		2,337
Debt repayments		,907)		2,682)		(2,764)
Net commercial paper borrowings	(-	513	(-			
Premiums paid on early extinguishment of debt		(8)		(2)		(555)
Common stock repurchase program		(750)		(725)		(600)
Cash dividends		(750)		(726)		(695)
Exercise of common stock options		95		63		77
Tax payments associated with equity-based compensation transactions		(47)		(30)		(15)
Other, net		16		(36)		30
Net cash used in financing activities	(1	,811)	- (	1,081)		(2,185)
Effect of exchange rate changes on cash and cash equivalents					_	(2,103)
Decrease in cash and cash equivalents		(10)		(7)		(1,268)
Cash and cash equivalents at beginning of year		32		39		1,307
Cash and cash equivalents at end of year	\$	22	\$	32	\$	39
Casii and Casii equivalents at end of year	Φ	<i>LL</i>	Φ	32	φ	39

## CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY (In Millions, Except Shares in Thousands)

Waste Management, Inc. Stockholders' Equity Accumulated Additional Other Common Stock Paid-In Retained Comprehensive Treasury Stock Noncontrolling Shares Amounts
23 (171,745) \$ (5,636) \$ Total Shares Amounts Capital Earnings Income (Loss) Interests Balance, December 31, 2014 \$5,889 630,282 4,585 \$ 6,888 6 752 Consolidated net income 753 (1) Other comprehensive income (loss), net of tax (150)(150)Cash dividends (695)(695)Equity-based compensation transactions, net of tax 171 62 (7) 3,457 116 Common stock repurchase (600)180 (14,823)(780)program Other, net Balance, December 31, 2015 \$5,367 630,282 \$ 6 \$ 4,827 \$ 6,939 \$ (127) (183,105) \$ (6,300) \$ 22 Consolidated net income 1,180 1,182 (2) Other comprehensive income (loss), net of tax 47 47 (726)(726) Cash dividends Equity-based compensation 69 transactions, net of tax 186 (7) 3,556 124 Common stock repurchase program (725)(45) (11,241)(680)Other, net 3 (9) (1) (177)(11) 7,388 \$ Balance, December 31, 2016 \$5.320 630,282 \$ (80) (190,967) \$ (6,867) \$ 23 6 \$ 4,850 \$ Consolidated net income 1,949 1,949 Other comprehensive income (loss), net of tax 88 88 Cash dividends (750)(750)Equity-based compensation transactions, net 185 38 4,064 146 Common stock repurchase (10,058) program (750)45 (795)Other, net (3) Balance, December 31, 2017 \$6,042 630,282 4,933 \$ 8,588 (196,964) \$ (7,516)

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS Years Ended December 31, 2017, 2016 and 2015

#### 1. Business

The financial statements presented in this report represent the consolidation of Waste Management, Inc., a Delaware corporation; its wholly-owned and majority-owned subsidiaries; and certain variable interest entities for which Waste Management, Inc. or its subsidiaries are the primary beneficiaries as described in Note 18. Waste Management, Inc. is a holding company and all operations are conducted by its subsidiaries. When the terms "the Company," "we," "us" or "our" are used in this document, those terms refer to Waste Management, Inc., its consolidated subsidiaries and consolidated variable interest entities. When we use the term "WM," we are referring only to Waste Management, Inc., the parent holding company.

We are North America's leading provider of comprehensive waste management environmental services. We partner with our residential, commercial, industrial and municipal customers and the communities we serve to manage and reduce waste at each stage from collection to disposal, while recovering valuable resources and creating clean, renewable energy. Our "Solid Waste" business is operated and managed locally by our subsidiaries that focus on distinct geographic areas and provides collection, transfer, disposal, and recycling and resource recovery services. Through our subsidiaries, we are also a leading developer, operator and owner of landfill gas-to-energy facilities in the United States ("U.S.").

We evaluate, oversee and manage the financial performance of our Solid Waste business subsidiaries through our 17 Areas. We also provide additional services that are not managed through our Solid Waste business, which are presented in this report as "Other." Additional information related to our segments is included in Note 19.

## 2. Adoption of New Accounting Standards and Reclassifications

## Adoption of New Accounting Standards

Equity-Based Compensation — In March 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2016-09 associated with equity-based compensation as part of its simplification initiative to reduce the cost and complexity of compliance with U.S. Generally Accepted Accounting Principles ("GAAP"), while maintaining or improving the usefulness of the information provided. This amended guidance was effective for the Company on January 1, 2017 and required the following changes to the presentation of our financial statements:

- Excess tax benefits or deficiencies for share-based payments are now recorded as a discrete item in the period shares
  vest or stock options are exercised as an adjustment to income tax expense or benefit rather than additional paid-in
  capital. This change was applied prospectively as of January 1, 2017. The Company did not have any excess tax
  benefits that were not previously recognized as of January 1, 2017. See Note 8 for discussion of the current year
  impact;
- As of January 1, 2017, the calculation of diluted weighted average shares outstanding was changed prospectively to
  no longer include excess tax benefits as assumed proceeds. This change did not have a material impact on our
  current year diluted earnings per share;
- Cash flows related to excess tax benefits or deficiencies are included in net cash provided by operating activities rather than as a financing activity. The Company adopted this change retrospectively, which resulted in an increase to net cash provided by operating activities and a corresponding increase to net cash used in financing activities of \$28 million and \$15 million for the years ended December 31, 2016 and 2015, respectively;
- Cash paid to taxing authorities when withholding shares from an employee's vesting or exercise of equity-based
  compensation awards for tax-withholding purposes is now considered a repurchase of the Company's equity
  instruments and is classified as net cash used in financing activities rather than as an operating activity. The
  Company adopted this change retrospectively, which resulted in an increase to net cash provided by operating

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

activities and a corresponding increase to net cash used in financing activities of \$18 million and \$15 million for the years ended December 31, 2016 and 2015, respectively; and

• The Company elected to continue to estimate forfeitures rather than account for forfeitures as they occur.

Goodwill Impairment Testing — In January 2017, the FASB issued ASU 2017-04 which simplifies the goodwill impairment test by eliminating Step 2 of the quantitative assessment and should reduce the cost and complexity of evaluating goodwill for impairment. Under the amended guidance, when a quantitative assessment is required, an entity will perform a goodwill impairment test by comparing the estimated fair value of a reporting unit with its carrying amount. An impairment charge will be measured as the amount by which the carrying amount exceeds the reporting unit's estimated fair value, not to exceed the total amount of recorded goodwill. This amended guidance, effective for the Company on January 1, 2020, permits early adoption. The Company's early adoption on January 1, 2017 did not have a material impact on our consolidated financial statements.

## Reclassifications

When necessary, reclassifications have been made to our prior period financial information to conform to the current year presentation.

## 3. Summary of Significant Accounting Policies

## Principles of Consolidation

The accompanying Consolidated Financial Statements include the accounts of WM, its wholly-owned and majority-owned subsidiaries and certain variable interest entities for which we have determined that we are the primary beneficiary. All material intercompany balances and transactions have been eliminated. Investments in unconsolidated entities are accounted for under either the equity method or cost method of accounting, as appropriate.

## Estimates and Assumptions

In preparing our financial statements, we make numerous estimates and assumptions that affect the accounting for and recognition and disclosure of assets, liabilities, equity, revenues and expenses. We must make these estimates and assumptions because certain information that we use is dependent on future events, cannot be calculated with precision from available data or simply cannot be calculated. In some cases, these estimates are difficult to determine, and we must exercise significant judgment. In preparing our financial statements, the most difficult, subjective and complex estimates and the assumptions that present the greatest amount of uncertainty relate to our accounting for landfills, environmental remediation liabilities, long-lived asset impairments and reserves associated with our insured and self-insured claims. Each of these items is discussed in additional detail below. Actual results could differ materially from the estimates and assumptions that we use in the preparation of our financial statements.

## Cash and Cash Equivalents

Cash in excess of current operating requirements is invested in short-term interest-bearing instruments with maturities of three months or less at the date of purchase and is stated at cost, which approximates market value.

## Concentrations of Credit Risk

Financial instruments that potentially subject us to concentrations of credit risk consist primarily of cash and cash equivalents, investments held within our restricted trust and escrow accounts, and accounts receivable. We make efforts to control our exposure to credit risk associated with these instruments by (i) placing our assets and other financial interests

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

with a diverse group of credit-worthy financial institutions; (ii) holding high-quality financial instruments while limiting investments in any one instrument and (iii) maintaining strict policies over credit extension that include credit evaluations, credit limits and monitoring procedures, although generally we do not have collateral requirements for credit extensions. We also control our exposure associated with trade receivables by discontinuing service, to the extent allowable, to non-paying customers. However, our overall credit risk associated with trade receivables is limited due to the large number and diversity of customers we serve. As of December 31, 2017 and 2016, no single customer represented greater than 5% of total accounts receivable.

## Accounts and Other Receivables

Our receivables, which are recorded when billed, when services are performed or when cash is advanced, are claims against third parties that will generally be settled in cash. The carrying value of our receivables, net of the allowance for doubtful accounts, represents the estimated net realizable value. We estimate our allowance for doubtful accounts based on historical collection trends; type of customer, such as municipal or commercial; the age of outstanding receivables and existing economic conditions. If events or changes in circumstances indicate that specific receivable balances may be impaired, further consideration is given to the collectability of those balances and the allowance is adjusted accordingly. Past-due receivable balances are written off when our internal collection efforts have been unsuccessful. Also, we recognize interest income on long-term interest-bearing notes receivable as the interest accrues under the terms of the notes. We no longer accrue interest once the notes are deemed uncollectible.

Other receivables, as of December 31, 2017 and 2016, include receivables related to income tax payments in excess of our current income tax obligations of \$504 million and \$352 million, respectively.

## Parts and Supplies

Parts and supplies consist primarily of spare parts, fuel, tires, lubricants and processed recycling materials. Our parts and supplies are stated at the lower of cost, using the average cost method, or market.

## Landfill Accounting

Cost Basis of Landfill Assets — We capitalize various costs that we incur to make a landfill ready to accept waste. These costs generally include expenditures for land (including the landfill footprint and required landfill buffer property); permitting; excavation; liner material and installation; landfill leachate collection systems; landfill gas collection systems; environmental monitoring equipment for groundwater and landfill gas; and directly related engineering, capitalized interest, on-site road construction and other capital infrastructure costs. The cost basis of our landfill assets also includes asset retirement costs, which represent estimates of future costs associated with landfill final capping, closure and post-closure activities. These costs are discussed below.

Final Capping, Closure and Post-Closure Costs — Following is a description of our asset retirement activities and our related accounting:

- Final Capping Involves the installation of flexible membrane liners and geosynthetic clay liners, drainage and compacted soil layers and topsoil over areas of a landfill where total airspace capacity has been consumed. Final capping asset retirement obligations are recorded on a units-of-consumption basis as airspace is consumed related to the specific final capping event with a corresponding increase in the landfill asset. Each final capping event is accounted for as a discrete obligation and recorded as an asset and a liability based on estimates of the discounted cash flows and capacity associated with each final capping event.
- Closure Includes the construction of the final portion of methane gas collection systems (when required), demobilization and routine maintenance costs. These are costs incurred after the site ceases to accept waste, but

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

before the landfill is certified as closed by the applicable state regulatory agency. These costs are recorded as an asset retirement obligation as airspace is consumed over the life of the landfill with a corresponding increase in the landfill asset. Closure obligations are recorded over the life of the landfill based on estimates of the discounted cash flows associated with performing closure activities.

Post-Closure — Involves the maintenance and monitoring of a landfill site that has been certified closed by the
applicable regulatory agency. Generally, we are required to maintain and monitor landfill sites for a 30-year period.
These maintenance and monitoring costs are recorded as an asset retirement obligation as airspace is consumed over
the life of the landfill with a corresponding increase in the landfill asset. Post-closure obligations are recorded over
the life of the landfill based on estimates of the discounted cash flows associated with performing post-closure
activities.

We develop our estimates of these obligations using input from our operations personnel, engineers and accountants. Our estimates are based on our interpretation of current requirements and proposed regulatory changes and are intended to approximate fair value. Absent quoted market prices, the estimate of fair value is based on the best available information, including the results of present value techniques. In many cases, we contract with third parties to fulfill our obligations for final capping, closure and post-closure. We use historical experience, professional engineering judgment and quoted or actual prices paid for similar work to determine the fair value of these obligations. We are required to recognize these obligations at market prices whether we plan to contract with third parties or perform the work ourselves. In those instances where we perform the work with internal resources, the incremental profit margin realized is recognized as a component of operating income when the work is completed.

Once we have determined final capping, closure and post-closure costs, we inflate those costs to the expected time of payment and discount those expected future costs back to present value. During the years ended December 31, 2017, 2016 and 2015, we inflated these costs in current dollars to the expected time of payment using an inflation rate of 2.5%. We discounted these costs to present value using the credit-adjusted, risk-free rate effective at the time an obligation is incurred, consistent with the expected cash flow approach. Any changes in expectations that result in an upward revision to the estimated cash flows are treated as a new liability and discounted at the current rate while downward revisions are discounted at the historical weighted average rate of the recorded obligation. As a result, the credit-adjusted, risk-free discount rate used to calculate the present value of an obligation is specific to each individual asset retirement obligation. The weighted average rate applicable to our long-term asset retirement obligations as of December 31, 2017 was approximately 5.75%.

We record the estimated fair value of final capping, closure and post-closure liabilities for our landfills based on the capacity consumed through the current period. The fair value of final capping obligations is developed based on our estimates of the airspace consumed to date for each final capping event and the expected timing of each final capping event. The fair value of closure and post-closure obligations is developed based on our estimates of the airspace consumed to date for the entire landfill and the expected timing of each closure and post-closure activity. Because these obligations are measured at estimated fair value using present value techniques, changes in the estimated cost or timing of future final capping, closure and post-closure activities could result in a material change in these liabilities, related assets and results of operations. We assess the appropriateness of the estimates used to develop our recorded balances annually, or more often if significant facts change.

Changes in inflation rates or the estimated costs, timing or extent of future final capping, closure and post-closure activities typically result in both (i) a current adjustment to the recorded liability and landfill asset and (ii) a change in liability and asset amounts to be recorded prospectively over either the remaining capacity of the related discrete final capping event or the remaining permitted and expansion airspace (as defined below) of the landfill. Any changes related to the capitalized and future cost of the landfill assets are then recognized in accordance with our amortization policy, which would generally result in amortization expense being recognized prospectively over the remaining capacity of the final capping event or the remaining permitted and expansion airspace of the landfill, as appropriate. Changes in such

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

estimates associated with airspace that has been fully utilized result in an adjustment to the recorded liability and landfill assets with an immediate corresponding adjustment to landfill airspace amortization expense.

Interest accretion on final capping, closure and post-closure liabilities is recorded using the effective interest method and is recorded as final capping, closure and post-closure expense, which is included in operating expenses within our Consolidated Statements of Operations.

Amortization of Landfill Assets — The amortizable basis of a landfill includes (i) amounts previously expended and capitalized; (ii) capitalized landfill final capping, closure and post-closure costs; (iii) projections of future purchase and development costs required to develop the landfill site to its remaining permitted and expansion capacity and (iv) projected asset retirement costs related to landfill final capping, closure and post-closure activities.

Amortization is recorded on a units-of-consumption basis, applying expense as a rate per ton. The rate per ton is calculated by dividing each component of the amortizable basis of a landfill by the number of tons needed to fill the corresponding asset's airspace. For landfills that we do not own, but operate through lease or other contractual agreements, the rate per ton is calculated based on expected capacity to be utilized over the lesser of the contractual term of the underlying agreement or the life of the landfill.

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

- Remaining Permitted Airspace Our engineers, in consultation with third-party engineering consultants and surveyors, are responsible for determining remaining permitted airspace at our landfills. The remaining permitted airspace is determined by an annual survey, which is used to compare the existing landfill topography to the expected final landfill topography.
- Expansion Airspace We also include currently unpermitted expansion airspace in our estimate of remaining permitted and expansion airspace in certain circumstances. First, to include airspace associated with an expansion effort, we must generally expect the initial expansion permit application to be submitted within one year and the final expansion permit to be received within five years. Second, we must believe that obtaining the expansion permit is likely, considering the following criteria:
  - Personnel are actively working on the expansion of an existing landfill, including efforts to obtain land use and local, state or provincial approvals;
  - We have a legal right to use or obtain land to be included in the expansion plan;
  - There are no significant known technical, legal, community, business, or political restrictions or similar issues that could negatively affect the success of such expansion; and
  - Financial analysis has been completed based on conceptual design, and the results demonstrate that the expansion meets Company criteria for investment.

For unpermitted airspace to be initially included in our estimate of remaining permitted and expansion airspace, the expansion effort must meet all of the criteria listed above. These criteria are evaluated by our field-based engineers, accountants, managers and others to identify potential obstacles to obtaining the permits. Once the unpermitted airspace is included, our policy provides that airspace may continue to be included in remaining permitted and expansion airspace even if certain of these criteria are no longer met as long as we continue to believe we will ultimately obtain the permit, based on the facts and circumstances of a specific landfill. In these circumstances, continued inclusion must be approved through a landfill-specific review process that includes approval by our Chief Financial Officer and a review by the Audit Committee of our Board of Directors on a quarterly basis. Of the 15 landfill sites with expansions included as of December 31, 2017, three landfills required the Chief Financial Officer to approve the inclusion of the unpermitted airspace. One landfill required approval by our Chief Financial Officer because of community or political opposition that

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

could impede the expansion process. The remaining two landfills required approval because the permit application process did not meet the one- or five-year requirements.

When we include the expansion airspace in our calculations of remaining permitted and expansion airspace, we also include the projected costs for development, as well as the projected asset retirement costs related to final capping, closure and post-closure of the expansion in the amortization basis of the landfill.

Once the remaining permitted and expansion airspace is determined in cubic yards, an airspace utilization factor ("AUF") is established to calculate the remaining permitted and expansion capacity in tons. The AUF is established using the measured density obtained from previous annual surveys and is then adjusted to account for future settlement. The amount of settlement that is forecasted will take into account several site-specific factors including current and projected mix of waste type, initial and projected waste density, estimated number of years of life remaining, depth of underlying waste, anticipated access to moisture through precipitation or recirculation of landfill leachate and operating practices. In addition, the initial selection of the AUF is subject to a subsequent multi-level review by our engineering group, and the AUF used is reviewed on a periodic basis and revised as necessary. Our historical experience generally indicates that the impact of settlement at a landfill is greater later in the life of the landfill when the waste placed at the landfill approaches its highest point under the permit requirements.

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

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

# **Environmental Remediation Liabilities**

A significant portion of our operating costs and capital expenditures could be characterized as costs of environmental protection. The nature of our operations, particularly with respect to the construction, operation and maintenance of our landfills, subjects us to an array of laws and regulations relating to the protection of the environment. Under current laws and regulations, we may have liabilities for environmental damage caused by our operations, or for damage caused by conditions that existed before we acquired a site. In addition to remediation activity required by state or local authorities, such liabilities include potentially responsible party ("PRP") investigations. The costs associated with these liabilities can include settlements, certain legal and consultant fees, as well as incremental internal and external costs directly associated with site investigation and clean up.

Where it is probable that a liability has been incurred, we estimate costs required to remediate sites based on site-specific facts and circumstances. We routinely review and evaluate sites that require remediation, considering whether we were an owner, operator, transporter, or generator at the site, the amount and type of waste hauled to the site and the number of years we were associated with the site. Next, we review the same type of information with respect to other named and unnamed PRPs. Estimates of the costs for the likely remedy are then either developed using our internal

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

resources or by third-party environmental engineers or other service providers. Internally developed estimates are based on:

- Management's judgment and experience in remediating our own and unrelated parties' sites;
- Information available from regulatory agencies as to costs of remediation;
- The number, financial resources and relative degree of responsibility of other PRPs who may be liable for remediation of a specific site; and
- The typical allocation of costs among PRPs, unless the actual allocation has been determined.

Estimating our degree of responsibility for remediation is inherently difficult. We recognize and accrue for an estimated remediation liability when we determine that such liability is both probable and reasonably estimable. Determining the method and ultimate cost of remediation requires that a number of assumptions be made. There can sometimes be a range of reasonable estimates of the costs associated with the likely site remediation alternatives identified in the environmental impact investigation. In these cases, we use the amount within the range that is our best estimate. If no amount within a range appears to be a better estimate than any other, we use the amount that is the low end of such range. If we used the high ends of such ranges, our aggregate potential liability would be approximately \$145 million higher than the \$251 million recorded in the Consolidated Balance Sheet as of December 31, 2017. Our ultimate responsibility may differ materially from current estimates. It is possible that technological, regulatory or enforcement developments, the results of environmental studies, the inability to identify other PRPs, the inabilities of other PRPs to contribute to the settlements of such liabilities, or other factors could require us to record additional liabilities. Our ongoing review of our remediation liabilities, in light of relevant internal and external facts and circumstances, could result in revisions to our accruals that could cause upward or downward adjustments to our balance sheet and income from operations. These adjustments could be material in any given period.

Where we believe that both the amount of a particular environmental remediation liability and the timing of the payments are fixed or reliably determinable, we inflate the cost in current dollars (by 2.5% as of December 31, 2017 and 2016) until the expected time of payment and discount the cost to present value using a risk-free discount rate, which is based on the rate for U.S. Treasury bonds with a term approximating the weighted average period until settlement of the underlying obligation. We determine the risk-free discount rate and the inflation rate on an annual basis unless interim changes would materially impact our results of operations. For remedial liabilities that have been discounted, we include interest accretion, based on the effective interest method, in operating expenses in our Consolidated Statements of Operations. The following table summarizes the impacts of revisions in the risk-free discount rate applied to our environmental remediation liabilities and recovery assets for the years ended December 31 (in millions) and the risk-free discount rate applied as of December 31:

	2	017	2	016		2015
Decrease in operating expenses	\$		\$	(2)	\$	(2)
Risk-free discount rate applied to environmental remediation liabilities and						
recovery assets		2.5 %	o	2.5 %	)	2.25 %

The portion of our recorded environmental remediation liabilities that were not subject to inflation or discounting, as the amounts and timing of payments are not fixed or reliably determinable, was \$103 million and \$90 million as of December 31, 2017 and 2016, respectively. Had we not inflated and discounted any portion of our environmental remediation liability, the amount recorded would have remained the same as of December 31, 2017 and 2016.

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

# Property and Equipment (Exclusive of Landfills, Discussed Above)

We record property and equipment at cost. Expenditures for major additions and improvements are capitalized and maintenance activities are expensed as incurred. We depreciate property and equipment over the estimated useful life of the asset using the straight-line method. We assume no salvage value for our depreciable property and equipment. When property and equipment are retired, sold or otherwise disposed of, the cost and accumulated depreciation are removed from our accounts and any resulting gain or loss is included in results of operations as an offset or increase to operating expense for the period.

The estimated useful lives for significant property and equipment categories are as follows (in years):

	Useful Lives
Vehicles — excluding rail haul cars	3 to 10
Vehicles — rail haul cars	10 to 20
Machinery and equipment — including containers	3 to 30
Buildings and improvements	5 to 40
Furniture, fixtures and office equipment	3 to 10

We include capitalized costs associated with developing or obtaining internal-use software within furniture, fixtures and office equipment. These costs include direct external costs of materials and services used in developing or obtaining the software and internal costs for employees directly associated with the software development project.

#### Leases

We lease property and equipment in the ordinary course of our business. Our most significant lease obligations are for property and equipment specific to our industry, including real property operated as a landfill or transfer station. 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. The leases are classified as either operating leases or capital leases, as appropriate.

Operating Leases (Excluding Landfill Leases Discussed Below) — The majority of our leases are operating leases. This classification generally can be attributed to either (i) relatively low fixed minimum lease payments as a result of real property lease obligations that vary based on the volume of waste we receive or process or (ii) minimum lease terms that are much shorter than the assets' economic useful lives. Management expects that in the normal course of business our operating leases will be renewed, replaced by other leases, or replaced with fixed asset expenditures. Our rent expense during each of the last three years and our future minimum operating lease payments for each of the next five years for which we are contractually obligated as of December 31, 2017 are disclosed in Note 10.

Capital Leases (Excluding Landfill Leases Discussed Below) — Assets under capital leases are capitalized using interest rates determined at the inception of each lease and are amortized over either the useful life of the asset or the lease term, as appropriate, on a straight-line basis. The present value of the related lease payments is recorded as a debt obligation. Our future minimum annual capital lease payments are included in our future debt obligations as disclosed in Note 7.

Landfill Leases — From an operating perspective, landfills that we lease are similar to landfills we own because generally we will operate the landfill for the life of the operating permit. The most significant portion of our rental obligations for landfill leases is contingent upon operating factors such as disposal volumes and often there are no contractual minimum rental obligations. Contingent rental obligations are expensed as incurred. For landfill capital leases that provide for minimum contractual rental obligations, we record the present value of the minimum obligation as part of

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

the landfill asset, which is amortized on a units-of-consumption basis over the shorter of the lease term or the life of the landfill.

## Acquisitions

We generally recognize assets acquired and liabilities assumed in business combinations, including contingent assets and liabilities, based on fair value estimates as of the date of acquisition.

Contingent Consideration — In certain acquisitions, we agree to pay additional amounts to sellers contingent upon achievement by the acquired businesses of certain negotiated goals, such as targeted revenue levels, targeted disposal volumes or the issuance of permits for expanded landfill airspace. We have recognized liabilities for these contingent obligations based on their estimated fair value as of the date of acquisition with any differences between the acquisition-date fair value and the ultimate settlement of the obligations being recognized as an adjustment to income from operations.

Acquired Assets and Assumed Liabilities — Assets and liabilities arising from contingencies such as pre-acquisition environmental matters and litigation are recognized at their acquisition-date fair value when their respective fair values can be determined. If the fair values of such contingencies cannot be determined, they are recognized as of the acquisition date if the contingencies are probable and an amount can be reasonably estimated.

Acquisition-date fair value estimates are revised as necessary if, and when, additional information regarding these contingencies becomes available to further define and quantify assets acquired and liabilities assumed. Subsequent to finalization of purchase accounting, these revisions are accounted for as adjustments to income from operations. All acquisition-related transaction costs are expensed as incurred.

## Goodwill and Other Intangible Assets

Goodwill is the excess of our purchase cost over the fair value of the net assets of acquired businesses. We do not amortize goodwill, but as discussed in the *Long-Lived Asset Impairments* section below, we assess our goodwill for impairment at least annually.

Other intangible assets consist primarily of customer and supplier relationships, covenants not-to-compete, licenses, permits (other than landfill permits, as all landfill-related intangible assets are combined with landfill tangible assets and amortized using our landfill amortization policy), and other contracts. Other intangible assets are recorded at fair value on the acquisition date and are generally amortized using either a 150% declining balance approach or a straight-line basis as we determine appropriate. Customer and supplier relationships are typically amortized over a term ranging between 10 and 15 years. Covenants not-to-compete are amortized over the term of the non-compete covenant, which is generally two to five years. Licenses, permits and other contracts are amortized over the definitive terms of the related agreements. If the underlying agreement does not contain definitive terms and the useful life is determined to be indefinite, the asset is not amortized.

## Long-Lived Asset Impairments

We assess our long-lived assets for impairment as required under the applicable accounting standards. If necessary, impairments are recorded in (income) expense from divestitures, asset impairments and unusual items, net in our Consolidated Statement of Operations.

Property and Equipment, Including Landfills and Definite-Lived Intangible Assets — We monitor the carrying value of our long-lived assets for potential impairment on an ongoing basis and test the recoverability of such assets generally using significant unobservable ("Level 3") inputs whenever events or changes in circumstances indicate that their carrying

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

amounts may not be recoverable. These events or changes in circumstances, including management decisions pertaining to such assets, are referred to as impairment indicators. If an impairment indicator occurs, we perform a test of recoverability by comparing the carrying value of the asset or asset group to its undiscounted expected future cash flows. If cash flows cannot be separately and independently identified for a single asset, we will determine whether an impairment has occurred for the group of assets for which we can identify the projected cash flows. If the carrying values are in excess of undiscounted expected future cash flows, we measure any impairment by comparing the fair value of the asset or asset group to its carrying value and the difference is recorded in the period that the impairment indicator occurs. Fair value is generally determined by considering (i) internally developed discounted projected cash flow analysis of the asset or asset group; (ii) actual third-party valuations and/or (iii) information available regarding the current market for similar assets. Estimating future cash flows requires significant judgment and projections may vary from the cash flows eventually realized, which could impact our ability to accurately assess whether an asset has been impaired.

The assessment of impairment indicators and the recoverability of our capitalized costs associated with landfills and related expansion projects require significant judgment due to the unique nature of the waste industry, the highly regulated permitting process and the sensitive estimates involved. During the review of a landfill expansion application, a regulator may initially deny the expansion application although the expansion permit is ultimately granted. In addition, management may periodically divert waste from one landfill to another to conserve remaining permitted landfill airspace, or a landfill may be required to cease accepting waste, prior to receipt of the expansion permit. However, such events occur in the ordinary course of business in the waste industry and do not necessarily result in impairment of our landfill assets because, after consideration of all facts, such events may not affect our belief that we will ultimately obtain the expansion permit. As a result, our tests of recoverability, which generally make use of a probability-weighted cash flow estimation approach, may indicate that no impairment loss should be recorded.

*Indefinite-Lived Intangible Assets, Including Goodwill* — At least annually, and more frequently if warranted, we assess the indefinite-lived intangible assets including the goodwill of our reporting units for impairment using Level 3 inputs.

We assess whether an impairment exists using a quantitative assessment. Our quantitative assessment identifies potential impairments by comparing the estimated fair value of a reporting unit to its carrying amount, including goodwill. An impairment charge is recognized if the asset's estimated fair value is less than its carrying amount. Fair value is typically estimated using an income approach. However, when appropriate, we may also use a market approach. The income approach is based on the long-term projected future cash flows of the reporting units. We discount the estimated cash flows to present value using a weighted average cost of capital that considers factors such as market assumptions, the timing of the cash flows and the risks inherent in those cash flows. We believe that this approach is appropriate because it provides a fair value estimate based upon the reporting units' expected long-term performance considering the economic and market conditions that generally affect our business. The market approach estimates fair value by measuring the aggregate market value of publicly-traded companies with similar characteristics to our business as a multiple of their reported earnings. We then apply that multiple to the reporting units' earnings to estimate their fair values. We believe that this approach may also be appropriate in certain circumstances because it provides a fair value estimate using valuation inputs from entities with operations and economic characteristics comparable to our reporting units.

Fair value is computed using several factors, including projected future operating results, economic projections, anticipated future cash flows, comparable marketplace data and the cost of capital. There are inherent uncertainties related to these factors and to our judgment in applying them in our analysis. However, we believe our methodology for estimating the fair value of our reporting units is reasonable.

Refer to Note 11 for information related to impairments recognized during the reported periods.

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

#### Insured and Self-Insured Claims

We have retained a significant portion of the risks related to our health and welfare, general liability, automobile liability and workers' compensation claims programs. The exposure for unpaid claims and associated expenses, including incurred but not reported losses, generally is estimated with the assistance of external actuaries and by factoring in pending claims and historical trends and data. The gross estimated liability associated with settling unpaid claims is included in accrued liabilities in our Consolidated Balance Sheets if expected to be settled within one year; otherwise, it is included in long-term other liabilities. Estimated insurance recoveries related to recorded liabilities are reflected as current other receivables or long-term other assets in our Consolidated Balance Sheets when we believe that the receipt of such amounts is probable.

In December 2017, we elected to use a wholly-owned insurance captive to insure the deductibles for our general liability, automobile liability and workers' compensation claims programs. We continue to maintain conventional insurance policies with third-party insurers. In addition to certain business and operating benefits of having a wholly-owned insurance captive, we expect to receive certain cash flow benefits related to the timing of tax deductions related to these claims. WM will pay an annual premium to the insurance captive, typically in the first quarter of the year comprised of equal parts cash and an intercompany note, for the estimated losses based on the external actuarial analysis. These premiums are held in a restricted escrow account to be used solely for paying insurance claims, resulting in a transfer of risk from WM to the insurance captive.

## Restricted Trust and Escrow Accounts

Our restricted trust and escrow accounts consist principally of funds deposited for purposes of funding insurance claims and settling landfill final capping, closure, post-closure and environmental remediation obligations. In December 2017, we elected to use a wholly-owned insurance captive to insure the deductibles for certain claims programs, as discussed above in *Insured and Self-Insured Claims*, and the premiums paid were directly deposited into a restricted escrow account to be used solely for paying insurance claims. At several of our landfills, we provide financial assurance by depositing cash into restricted trust or escrow accounts for purposes of settling final capping, closure, post-closure and environmental remediation obligations. Balances maintained in these restricted trust and escrow accounts will fluctuate based on (i) changes in statutory requirements; (ii) future deposits made to comply with contractual arrangements; (iii) the ongoing use of funds; (iv) acquisitions or divestitures and (v) changes in the fair value of the financial instruments held in the restricted trust or escrow accounts.

See Note 18 for additional discussion related to restricted trust and escrow accounts for final capping, closure, post-closure or environmental remediation obligations.

#### Investments in Unconsolidated Entities

Investments in unconsolidated entities over which the Company has significant influence are accounted for under the equity method of accounting. Investments in entities in which the Company does not have the ability to exert significant influence over the investees' operating and financing activities are accounted for under the cost method of accounting. The following table summarizes our equity and cost method investments as of December 31 (in millions):

	2	2017	2016
Equity method investments	\$	127	\$ 173
Cost method investments		142	147
Investments in unconsolidated entities	\$	269	\$ 320

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

We monitor and assess the carrying value of our investments throughout the year for potential impairment and write them down to their fair value when other-than-temporary declines exist. Fair value is generally based on (i) other third-party investors' recent transactions in the securities; (ii) other information available regarding the current market for similar assets and/or (iii) a market or income approach, as deemed appropriate. Impairments of equity and cost method investments are recorded in equity in net losses of unconsolidated entities and other, net, respectively, in the Consolidated Statements of Operations.

## Foreign Currency

We have operations in Canada, as well as certain support functions in India. Local currencies generally are considered the functional currencies of our operations and investments outside the U.S. The assets and liabilities of our foreign operations are translated to U.S. dollars using the exchange rate as of the balance sheet date. Revenues and expenses are translated to U.S. dollars using the average exchange rate during the period. The resulting translation difference is reflected as a component of other comprehensive income (loss).

## Cross-Currency Swaps

From time to time, we will use derivative financial instruments to manage our risk associated with fluctuations in foreign currency exchange rates. Through March 2016, we used cross-currency swaps to hedge our exposure to fluctuations in exchange rates for anticipated intercompany cash transactions between Waste Management Holdings, Inc., a wholly-owned subsidiary ("WM Holdings"), and its Canadian subsidiaries.

Our cross-currency swaps had been designated as cash flow hedges for accounting purposes, which resulted in the unrealized changes in the fair value of the derivative instruments being recorded in accumulated other comprehensive income (loss) within our Consolidated Balance Sheets. The associated balance in accumulated other comprehensive income (loss) was reclassified to earnings as the hedged cash flows affected earnings. The financial statement impacts of our cross-currency swaps are discussed in Note 7.

## Revenue Recognition

Our revenues are generated from the fees we charge for waste collection, transfer, disposal, and recycling and resource recovery services; from the sale of recycling commodities; from the sale of electricity and landfill gas, which are byproducts of our landfill operations and from the sale of oil and gas. The fees charged for our services are generally defined in our service agreements and vary based on contract-specific terms such as frequency of service, weight, volume and the general market factors influencing a region's rates. The fees we charge for our services generally include our environmental fee, fuel surcharge and regulatory recovery fee, which are intended to pass through to customers increased direct and indirect costs incurred. We generally recognize revenue as services are performed or products are delivered. For example, revenue typically is recognized as waste is collected, tons are received at our landfills or transfer stations, or recycling commodities are delivered.

We bill for certain services prior to performance. Such services include, among others, certain residential contracts that are billed on a quarterly basis and equipment rentals. These advance billings are included in deferred revenues and recognized as revenue in the period service is provided.

## Capitalized Interest

We capitalize interest on certain projects under development, including landfill expansion projects, certain assets under construction, including operating landfills and landfill gas-to-energy projects and internal-use software. During

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

2017, 2016 and 2015, total interest costs were \$383 million, \$394 million and \$407 million, respectively, of which \$15 million, \$9 million and \$16 million was capitalized in 2017, 2016 and 2015, respectively.

#### Income Taxes

The Company is subject to income tax in the U.S. and Canada. Current tax obligations associated with our income tax expense are reflected in the accompanying Consolidated Balance Sheets as a component of accrued liabilities and our deferred tax obligations are reflected in deferred income taxes.

Deferred income taxes are based on the difference between the financial reporting and tax basis of assets and liabilities. Deferred income tax expense represents the change during the reporting period in the deferred tax assets and liabilities, net of the effect of acquisitions and dispositions. Deferred tax assets include tax loss and credit carry-forwards and are reduced by a valuation allowance if, based on available evidence, it is more likely than not that some portion or all of the deferred tax assets will not be realized. We establish reserves for uncertain tax positions when, despite our belief that our tax return positions are fully supportable, we believe that certain positions may be challenged and potentially disallowed. When facts and circumstances change, we adjust these reserves through our income tax expense.

Should interest and penalties be assessed by taxing authorities on any underpayment of income tax, such amounts would be accrued and classified as a component of our income tax expense in our Consolidated Statements of Operations.

See Note 8 for discussion of the impacts of enactment of the Tax Cuts and Jobs Act which was signed into law on December 22, 2017 and is generally effective for tax years beginning January 1, 2018.

#### Contingent Liabilities

We estimate the amount of potential exposure we may have with respect to claims, assessments and litigation in accordance with authoritative guidance on accounting for contingencies. We are party to pending or threatened legal proceedings covering a wide range of matters in various jurisdictions. It is difficult to predict the outcome of litigation, as it is subject to many uncertainties. Additionally, it is not always possible for management to make a meaningful estimate of the potential loss or range of loss associated with such contingencies. See Note 10 for discussion of our commitments and contingencies.

## Supplemental Cash Flow Information

The following table shows supplemental cash flow information for the years ended December 31 (in millions):

	2	2017	2	2016	2015
Interest, net of capitalized interest	\$	380	\$	375	\$ 384
Income taxes		562		442	419

During 2017, we had \$452 million of non-cash financing activities due to the initial funding of a wholly-owned insurance captive and tax-exempt bond borrowings. During 2016 and 2015, we did not have any significant non-cash investing and financing activities. Non-cash investing and financing activities are generally excluded from the Consolidated Statements of Cash Flows.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

# 4. Landfill and Environmental Remediation Liabilities

Liabilities for landfill and environmental remediation costs as of December 31 are presented in the table below (in millions):

	2017					2016						
		Environmental				Environmental						
	L	andfill	Remediation Total		1	Landfill Remediation			n Tot			
Current (in accrued liabilities)	\$	128	\$	28	\$	156	\$	119	\$	28	\$	147
Long-term		1,547		223		1,770		1,457		218		1,675
	\$	1,675	\$	251	\$	1,926	\$	1,576	\$	246	\$	1,822

The changes to landfill and environmental remediation liabilities for the year ended December 31, 2017 are reflected in the table below (in millions):

vironmental
emediation
246
_
(21)
4
23
(1)
251

- (a) The amount reported for our landfill liabilities includes (i) a net increase of \$19 million related to our year-end annual review of landfill final capping, closure and post-closure obligations and (ii) an increase of \$12 million primarily for enhancements to our gas and leachate collection systems at certain closed landfills.
- (b) Our environmental remediation liabilities include \$11 million of charges to adjust our subsidiary's estimated potential share of an environmental remediation liability and related costs for a closed site in Harris County, Texas, as discussed in Note 10.

Our recorded liabilities as of December 31, 2017 include the impacts of inflating certain of these costs based on our expectations of the timing of cash settlement and of discounting certain of these costs to present value. Anticipated payments of currently identified environmental remediation liabilities, as measured in current dollars, are \$28 million in 2018, \$23 million in 2019, \$66 million in 2020, \$36 million in 2021, \$11 million in 2022 and \$87 million thereafter.

At several of our landfills, we provide financial assurance by depositing cash into restricted trust funds or escrow accounts for purposes of settling final capping, closure, post-closure and environmental remediation obligations. Generally, these trust funds are established to comply with statutory requirements and operating agreements. See Notes 16 and 18 for additional information related to these trusts.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

# 5. Property and Equipment

Property and equipment as of December 31 consisted of the following (in millions):

	2017		2016
Land	\$ 624	\$	608
Landfills	14,904		14,276
Vehicles	4,750		4,433
Machinery and equipment	2,824		2,639
Containers	2,571		2,469
Buildings and improvements	2,846		2,667
Furniture, fixtures and office equipment	744		1,010
	 29,263		28,102
Less: Accumulated depreciation of tangible property and equipment	(8,916)		(8,812)
Less: Accumulated amortization of landfill airspace	(8,788)		(8,340)
Property and equipment, net	\$ 11,559	\$	10,950

Depreciation and amortization expense, including amortization expense for assets recorded as capital leases, consisted of the following for the years ended December 31 (in millions):

	2017	,	2016	2015
Depreciation of tangible property and equipment	\$ 7	83	773	\$ 760
Amortization of landfill airspace	4	.97	428	409
Depreciation and amortization expense	\$ 1,2	80	1,201	\$ 1,169

## 6. Goodwill and Other Intangible Assets

Goodwill was \$6,247 million and \$6,215 million as of December 31, 2017 and 2016, respectively. The \$32 million increase in goodwill during 2017 is primarily related to acquisitions, as well as translation adjustments related to our Canadian operations partially offset by impairment charges.

As discussed more fully in Note 3, we perform our annual impairment test of goodwill balances for our reporting units using a measurement date of October 1. We will also perform interim tests if an impairment indicator exists. As a result of our annual impairment tests, we recorded goodwill impairment charges during the fourth quarter of 2017 of \$32 million for a reporting unit in our Energy and Environmental Services ("EES") organization and \$2 million for our LampTracker® reporting unit, as their carrying values including goodwill exceeded estimated fair values. Fair values were estimated using an income approach based on long-term projected discounted future cash flows of the reporting units.

See Notes 11,17 and 19 for additional information related to goodwill.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Our other intangible assets consisted of the following as of December 31 (in millions):

	Customer and Supplier Relationships		N	Covenants Not-to- Compete		Licenses, Permits and Other		Total
2017								
Intangible assets	\$	880	\$	48	\$	124	\$	1,052
Less: Accumulated amortization		(422)		(21)		(62)		(505)
	\$	458	\$	27	\$	62	\$	547
2016								
Intangible assets	\$	835	\$	59	\$	123	\$	1,017
Less: Accumulated amortization		(342)		(31)		(53)		(426)
	\$	493	\$	28	\$	70	\$	591

Amortization expense for other intangible assets was \$96 million, \$100 million and \$76 million for 2017, 2016 and 2015, respectively. As of December 31, 2017, we had \$18 million of licenses, permits and other intangible assets that are not subject to amortization because they do not have stated expirations or have routine, administrative renewal processes. Additional information related to other intangible assets acquired through business combinations is included in Note 17. As of December 31, 2017, we expect annual amortization expense related to other intangible assets to be \$94 million in 2018, \$83 million in 2019, \$74 million in 2020, \$62 million in 2021 and \$49 million in 2022.

## 7. Debt

The following table summarizes the major components of debt as of each balance sheet date (in millions) and provides the maturities and interest rate ranges of each major category as of December 31:

	 2017		2016
\$2.25 billion revolving credit facility, maturing July 2020 (weighted average interest rate of			
1.9% as of December 31, 2016)	\$ _	\$	426
Commercial paper program (weighted average interest rate of 1.9% as of December 31, 2017)	515		_
Canadian term loan and revolving credit facility, maturing March 2019 (weighted average			
effective interest rate of 2.5% as of December 31, 2017 and 2.1% as of December 31, 2016)	113		239
Senior notes, maturing through 2045, interest rates ranging from 2.4% to 7.75% (weighted			
average interest rate of 4.3% as of December 31, 2017 and 4.6% as of December 31, 2016)	6,184		6,033
Tax-exempt bonds, maturing through 2045, fixed and variable interest rates ranging from			
1.2% to 5.7% (weighted average interest rate of 2.0% as of December 31, 2017 and 1.8% as			
of December 31, 2016)	2,352		2,304
Capital leases and other, maturing through 2055, interest rates up to 12%	327		308
	9,491		9,310
Current portion of long-term debt	739		417
,	\$ 8.752	\$	8.893

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

#### **Debt Classification**

As of December 31, 2017, the current portion of our long-term debt balance of \$739 million includes (i) \$515 million of short-term borrowings under our commercial paper program and (ii) \$224 million of other debt with scheduled maturities within the next 12 months, including \$167 million of tax-exempt bonds.

We have \$831 million of tax-exempt bonds with term interest rate periods that expire within the next 12 months and an additional \$328 million of variable-rate tax-exempt bonds that are supported by letters of credit. The interest rates on our variable-rate tax-exempt bonds are generally reset on either a daily or weekly basis through a remarketing process. All recent tax-exempt bond remarketings have successfully placed Company bonds with investors at market-driven rates and we currently expect future remarketings to be successful. However, if the remarketing agent is unable to remarket our bonds, the remarketing agent can put the bonds to us. In the event of a failed remarketing, we have the intent and ability to refinance these bonds on a long-term basis as supported by the forecasted available capacity under our long-term U.S. revolving credit facility ("\$2.25 billion revolving credit facility"). Accordingly, we have classified these borrowings as long-term in our Consolidated Balance Sheet as of December 31, 2017.

## Access to and Utilization of Credit Facilities and Commercial Paper Program

\$2.25 Billion Revolving Credit Facility — Our \$2.25 billion revolving credit facility maturing in July 2020 provides us with credit capacity to be used for either cash borrowings or to support letters of credit or commercial paper. The rates we pay for outstanding loans are generally based on LIBOR plus a spread depending on the Company's debt rating assigned by Moody's Investors Service and Standard and Poor's. The spread above LIBOR ranges from 0.805% to 1.3%. As of December 31, 2017, we had no outstanding borrowings under this facility. We had \$642 million of letters of credit issued and \$515 million of outstanding borrowings under our commercial paper program, both supported by this facility, leaving unused and available credit capacity of \$1,093 million as of December 31, 2017.

Commercial Paper Program — We have a \$1.5 billion commercial paper program that enables us to borrow funds for up to 397 days at competitive interest rates. The rates we pay for outstanding borrowings are based on the term of the notes. The commercial paper program is fully supported by our \$2.25 billion revolving credit facility. As of December 31, 2017, we had \$515 million of outstanding borrowings under our commercial paper program.

Canadian Term Loan and Revolving Credit Facility — We have a Canadian credit agreement (which includes a term loan and revolving credit facility) that matures in March 2019. Waste Management of Canada Corporation and WM Quebec Inc., indirect wholly-owned subsidiaries of WM, are borrowers under this agreement. This agreement provides the Company (i) C\$50 million of revolving credit capacity, which can be used for borrowings or letters of credit, and (ii) C\$460 million of non-revolving term credit that is prepayable without penalty and principal amounts repaid may not be reborrowed. The rates we pay for outstanding loans under the Canadian credit agreement are generally based on the applicable LIBOR plus a spread depending on the Company's debt rating assigned by Moody's Investors Service and Standard and Poor's. The spread above LIBOR ranges from 0.875% to 1.5%. As of December 31, 2017 and 2016, we had C\$142 million, or \$113 million, and C\$321 million, or \$239 million, respectively, of outstanding borrowings under our Canadian term loan. As of December 31, 2017 and 2016, we had no borrowings or letters of credit outstanding under the Canadian revolving credit facility.

Other Letter of Credit Facilities — As of December 31, 2017 and 2016, we had utilized \$507 million and \$492 million, respectively, of other letter of credit facilities, which are both committed and uncommitted, with terms extending through December 2018.

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

# **Debt Borrowings and Repayments**

\$2.25 Billion Revolving Credit Facility — During the year ended December 31, 2017, we had net repayments of \$703 million under our \$2.25 billion revolving credit facility, including a \$277 million repayment of an initial borrowing of \$277 million used to fund the insurance premiums for a wholly-owned insurance captive. These borrowings were directly deposited into a restricted escrow account to be used solely for paying insurance claims. Accordingly, the restricted funds provided by these financing activities have not been included in new borrowings in our Consolidated Statement of Cash Flows

Commercial Paper Program — During the year ended December 31, 2017, we had net cash borrowings of \$513 million (net of the related discount on issuance) for general corporate purposes.

Canadian Term Loan — During the year ended December 31, 2017, we repaid C\$179 million, or \$137 million, of net advances under our Canadian term loan with available cash. The remaining change in the carrying value of outstanding borrowings under our Canadian term loan is due to foreign currency translation.

Senior Notes — In November 2017, we issued \$750 million of 3.15% senior notes that mature in November 2027. We utilized the net proceeds of \$745 million to repay \$590 million of 6.1% senior notes ahead of their scheduled maturity date of March 2018, with the remaining net proceeds used for general corporate purposes. The \$6 million loss on early extinguishment of debt reflected in our Consolidated Statement of Operations for the year ended December 31, 2017 relates to this early repayment.

*Tax-Exempt Bonds* — During the year ended December 31, 2017, we repaid \$127 million of our tax-exempt bonds with available cash at their scheduled maturities. In December 2017, we elected to refund and reissue \$124 million of tax-exempt bonds in order to reduce the interest costs associated with this debt.

We issued \$175 million of tax-exempt bonds in 2017. The proceeds from the issuance of these bonds were deposited directly into a trust fund and may only be used for the specific purpose for which the money was raised, which is generally to finance expenditures for landfill and solid waste disposal facility construction and development. Accordingly, the restricted funds provided by these financing activities have not been included in new borrowings in our Consolidated Statement of Cash Flows.

Capital Leases and Other — During the year ended December 31, 2017, we had \$87 million in new capital leases to support new business opportunities, partially offset by net cash repayments of \$68 million of other debt.

## Scheduled Debt Payments

Principal payments of our debt and capital leases for the next five years and thereafter, based on scheduled maturities are as follows: \$737 million in 2018, \$302 million in 2019, \$754 million in 2020, \$549 million in 2021, \$592 million in 2022 and \$6,667 million thereafter. Our recorded debt and capital lease obligations include non-cash adjustments associated with debt issuance costs, discounts, premiums and fair value adjustments attributable to terminated interest rate derivatives, which have been excluded from these amounts because they will not result in cash payments.

## Cross-Currency Swaps

In March 2016, our Canadian subsidiaries repaid C\$370 million of intercompany debt to WM Holdings with proceeds from our Canadian term loan. Concurrent with the repayment of the intercompany debt, we terminated the related cross-currency swaps and received \$67 million in cash. The cash received from our termination of these swaps was classified as a change in other current assets and other assets within net cash provided by operating activities in the Consolidated

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Statement of Cash Flows. In addition, we recognized \$8 million of expense associated with the termination of these swaps in 2016, which was included in other, net in the Consolidated Statement of Operations.

# Senior Notes Refinancing

During 2015, we recognized a pre-tax loss of \$552 million associated with the early extinguishment of almost \$2 billion of our high-coupon senior notes through make-whole redemption and cash tender offers. We replaced substantially all of the debt extinguished with new senior notes at significantly lower coupon interest rates and extended the weighted average duration of these debt obligations.

#### Secured Debt

Our debt balances are generally unsecured, except for capital leases and the note payable associated with our investment in low-income housing properties.

#### **Debt Covenants**

Our \$2.25 billion revolving credit facility, our Canadian credit agreement and certain other financing agreements contain financial covenants. The following table summarizes the most restrictive requirements of these financial covenants (all terms used to measure these ratios are defined by the facilities):

Interest coverage ratio	> 2.75 to 1
Total debt to EBITDA	< 3.50 to 1

Our credit facilities and senior notes also contain certain restrictions intended to monitor our level of subsidiary indebtedness, types of investments and net worth. We monitor our compliance with these restrictions, but do not believe that they significantly impact our ability to enter into investing or financing arrangements typical for our business. As of December 31, 2017 and 2016, we were in compliance with the covenants and restrictions under all of our debt agreements that may have a material effect on our Consolidated Financial Statements.

## 8. Income Taxes

# Income Tax Expense

Our income tax expense consisted of the following for the years ended December 31 (in millions):

	2017		2016		2015
Current:					
Federal	\$ 400	\$	443	\$	192
State	56		88		50
Foreign	37		38		36
	493		569		278
Deferred:					
Federal	(316)		57		43
State	62		17		(17)
Foreign	3		(1)		4
	(251)		73		30
Income tax expense	\$ 242	\$	642	\$	308

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The U.S. federal statutory income tax rate is reconciled to the effective income tax rate for the years ended December 31 as follows:

	2017	2016	2015
Income tax expense at U.S. federal statutory rate	35.00 %	35.00 %	35.00 %
State and local income taxes, net of federal income tax benefit	3.25	3.31	3.20
Impacts of enactment of tax reform	(24.14)	_	_
Federal tax credits	(2.31)	(3.08)	(5.49)
Tax impact of equity-based compensation transactions	(1.45)	_	_
Tax impact of impairments	0.66	0.80	0.23
Taxing authority audit settlements and other tax adjustments	0.03	(0.53)	(2.67)
Tax rate differential on foreign income	(0.55)	(0.63)	(0.99)
Other	0.55	0.36	(0.17)
Effective income tax rate	11.04 %	35.23 %	29.11 %

The comparability of our income tax expense for the reported periods has been primarily affected by (i) variations in our income before income taxes; (ii) impacts of enactment of tax reform; (iii) federal tax credits; (iv) excess tax benefits associated with equity-based compensation transactions; (v) the tax implications of impairments; (vi) the realization of state net operating losses and credits; (vii) adjustments to our accruals and related deferred taxes and (viii) tax audit settlements.

For financial reporting purposes, income before income taxes by source for the years ended December 31 was as follows (in millions):

	2017	2016	2015
Domestic	\$ 2,040	\$ 1,681	\$ 922
Foreign	151	141	138
Income before income taxes	\$ 2,191	\$ 1,822	\$ 1,060

Impacts of Enactment of Tax Reform – The Tax Cuts and Jobs Act (the "Act") was signed into law on December 22, 2017 and is generally effective for tax years beginning January 1, 2018. The most significant impacts of the Act to the Company include a decrease in the federal corporate income tax rate from 35% to 21% and a one-time, mandatory transition tax on deemed repatriation of previously tax-deferred and unremitted foreign earnings. For the year ended December 31, 2017, we had an income tax benefit of \$529 million consisting of a net tax benefit of \$595 million for the re-measurement of our deferred income tax assets and liabilities due to the decrease in the federal corporate income tax rate, partially offset by income tax expense of \$66 million for the one-time, mandatory transition tax. The Company will elect to pay the federal portion of the transition tax liability over a period of eight years beginning in 2018.

Shortly after the Act was enacted, The Securities and Exchange Commission ("SEC") issued guidance under Staff Accounting Bulletin No. 118, Income Tax Accounting Implications of the Tax Cuts and Jobs Act ("SAB 118") to address the application of GAAP and directing taxpayers to consider the impact of the Act as "provisional" when a registrant does not have the necessary information available, prepared or analyzed (including computations) in reasonable detail to complete the accounting for the change in tax law. In accordance with SAB 118, the Company has recognized the provisional tax impacts, outlined above, related to the re-measurement of our deferred income tax assets and liabilities and the one-time, mandatory transition tax on deemed repatriation. Although the Company does not believe there will be any material adjustments in subsequent reporting periods, the ultimate impact may differ from the provisional amounts, due to, among other things, the significant complexity of the Act and anticipated additional regulatory guidance that may be issued by the Internal Revenue Service ("IRS"), changes in analysis, interpretations and assumptions the Company has

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

made and actions the Company may take as a result of the Act. The accounting is expected to be complete when the 2017 U.S. corporate income tax return is filed in 2018.

While the Act provides for a territorial tax system, beginning in 2018, it includes two new U.S. tax base erosion provisions, the global intangible low-taxed income ("GILTI") tax and the base erosion and anti-abuse tax ("BEAT"). Although the Company does not expect that it will be subject to any material incremental U.S. tax on GILTI income beginning in 2018, we have elected to account for any potential GILTI tax in the period in which it is incurred, and therefore have not provided any deferred income tax impacts of GILTI in our consolidated financial statements for the year ended December 31, 2017. In addition, the Company does not expect it will be subject to the minimum tax pursuant to the BEAT provisions.

Investments Qualifying for Federal Tax Credits — We have significant financial interests in entities established to invest in and manage low-income housing properties and a refined coal facility. We support the operations of these entities in exchange for a pro-rata share of the tax credits they generate. The low-income housing investments and the coal facility's refinement processes qualify for federal tax credits that we expect to realize through 2020 under Section 42 and through 2019 under Section 45, respectively, of the Internal Revenue Code.

We account for our investments in these entities using the equity method of accounting, recognizing our share of each entity's results of operations and other reductions in the value of our investments in equity in net losses of unconsolidated entities, within our Consolidated Statements of Operations. During the years ended December 31, 2017, 2016 and 2015, we recognized \$30 million, \$31 million and \$30 million of net losses and a reduction in our income tax expense of \$51 million, \$55 million and \$57 million, respectively, primarily because of tax credits realized from these investments. Interest expense associated with our investment in low-income housing properties was not material for the periods presented. See Note 18 for additional information related to these unconsolidated variable interest entities.

Other Federal Tax Credits — During 2017, 2016 and 2015, we recognized federal tax credits in addition to the tax credits realized from our investments in low-income housing properties and the refined coal facility, resulting in a reduction in our income tax expense of \$13 million, \$14 million and \$15 million, respectively.

Equity-Based Compensation — During the year ended December 31, 2017, we recognized a reduction in our income tax expense of \$37 million for excess tax benefits related to the vesting or exercise of equity-based compensation awards. See Note 2 for discussion of our adoption of ASU 2016-09.

Tax Implications of Impairments — Portions of the impairment charges recognized during the reported periods are not deductible for tax purposes. Had the charges been fully deductible, our income tax expense would have been reduced by \$15 million, \$15 million and \$2 million for the years ended December 31, 2017, 2016 and 2015, respectively. See Note 11 for more information related to our impairment charges.

State Net Operating Losses and Credits — During 2017, 2016 and 2015, we recognized state net operating losses and credits resulting in a reduction in our income tax expense of \$12 million, \$10 million and \$17 million, respectively.

Adjustments to Accruals and Related Deferred Taxes — Adjustments to our accruals and related deferred taxes due to the filing of our income tax returns and changes in state laws resulted in a reduction of \$5 million, \$10 million and \$18 million in our income tax expense for the years ended December 31, 2017, 2016 and 2015, respectively.

Tax Audit Settlements — We file income tax returns in the U.S. and Canada, as well as various state and local jurisdictions. We are currently under audit by the IRS and various state and local taxing authorities. Our audits are in various stages of completion. During the reported years, we closed various tax audits and the settlements resulted in a

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

reduction in our income tax expense of \$2 million, \$11 million and \$10 million for the years ended December 31, 2017, 2016 and 2015, respectively.

We participate in the IRS's Compliance Assurance Process, which means we work with the IRS throughout the year towards resolving any material issues prior to the filing of our annual tax return. Any unresolved issues as of the tax return filing date are subject to routine examination procedures. We are currently in the examination phase of IRS audits for the 2014 through 2018 tax years and expect these audits to be completed within the next 27 months. We are also currently undergoing audits by various state and local jurisdictions for tax years that date back to 2009, with the exception of affirmative claims in a limited number of jurisdictions that date back to 2000.

Unremitted Earnings in Foreign Subsidiaries — No additional income taxes have been provided for any remaining undistributed foreign earnings not subject to the one-time, mandatory transition tax, or any additional outside basis difference, as these amounts continue to be indefinitely reinvested in foreign operations. We are still in the process of analyzing the impact of the Act on our indefinite reinvestment assertion.

# Deferred Tax Assets (Liabilities)

The components of net deferred tax liabilities as of December 31 are as follows (in millions):

	2	017	2016
Deferred tax assets:			
Net operating loss, capital loss and tax credit carry-forwards	\$	259	\$ 285
Landfill and environmental remediation liabilities		121	116
Miscellaneous and other reserves, net		96	355
Subtotal		476	756
Valuation allowance		(264)	(292)
Deferred tax liabilities:			
Property and equipment		(595)	(728)
Goodwill and other intangibles		(865)	(1,218)
Net deferred tax liabilities	\$ (	(1,248)	\$ (1,482)

The valuation allowance decreased by \$28 million in 2017 primarily due to the impacts of enactment of tax reform, specifically the re-measurement of our deferred income tax assets and liabilities, partially offset by non-benefitted foreign tax credit carry-forwards resulting from the deemed repatriation of previously tax-deferred and unremitted foreign earnings.

As of December 31, 2017, we had \$2 million of federal net operating loss carry-forwards and \$1.8 billion of state net operating loss carry-forwards. The federal and state net operating loss carry-forwards have expiration dates through the year 2037. We also had \$442 million of federal capital loss carry-forwards with expiration dates through 2021, \$39 million of foreign tax credit carry-forwards that expire in 2027 and \$21 million of state tax credit carry-forwards.

We have established valuation allowances for uncertainties in realizing the benefit of certain tax loss and credit carry-forwards and other deferred tax assets. While we expect to realize the deferred tax assets, net of the valuation allowances, changes in estimates of future taxable income or in tax laws may alter this expectation.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

#### Liabilities for Uncertain Tax Positions

A reconciliation of the beginning and ending amount of gross unrecognized tax benefits, including accrued interest, is as follows (in millions):

	- 2	2017	20	16	2	2015
Balance as of January 1	\$	82	\$	71	\$	42
Additions based on tax positions related to the current year		19		19		18
Additions based on tax positions of prior years		11		4		21
Accrued interest		4		2		2
Reductions for tax positions of prior years		_		(7)		(1)
Settlements		(1)		_		(3)
Lapse of statute of limitations		(6)		(7)		(8)
Balance as of December 31	\$	109	\$	82	\$	71

These liabilities are included as a component of long-term other liabilities in our Consolidated Balance Sheets because the Company does not anticipate that settlement of the liabilities will require payment of cash within the next 12 months. As of December 31, 2017, we have \$94 million of net unrecognized tax benefits that, if recognized in future periods, would impact our effective tax rate.

We recognize interest expense related to unrecognized tax benefits in our income tax expense. During the years ended December 31, 2017, 2016 and 2015, we recognized \$4 million, \$2 million and \$2 million, respectively, of such interest expense as a component of our income tax expense. We had \$7 million and \$5 million of accrued interest expense in our Consolidated Balance Sheets as of December 31, 2017 and 2016, respectively. We did not have any accrued liabilities or expense for penalties related to unrecognized tax benefits for the reported periods.

#### 9. Employee Benefit Plans

Defined Contribution Plans — Waste Management sponsors a 401(k) retirement savings plan that covers employees, except those working subject to collective bargaining agreements that do not provide for coverage under the plan. U.S. employees who are not subject to such collective bargaining agreements are generally eligible to participate in the plan following a 90-day waiting period after hire and may contribute as much as 50% of their eligible annual compensation and 80% of their annual incentive plan bonus, subject to annual contribution limitations established by the IRS. Under the retirement savings plan, for non-union employees, we match 100% of employee contributions on the first 3% of their eligible annual compensation and 50% of employee contributions on the next 3% of their eligible annual compensation, resulting in a maximum match of 4.5% of eligible annual compensation. Both employee and Company contributions are in cash and vest immediately. Certain U.S. employees who are subject to collective bargaining agreements may participate in the 401(k) retirement savings plan under terms specified in their collective bargaining agreement. Certain employees outside the U.S., including those in Canada, participate in defined contribution plans maintained by the Company in compliance with laws of the appropriate jurisdiction. Charges to operating and selling, general and administrative expenses for our defined contribution plans totaled \$70 million, \$64 million and \$61 million for the years ended December 31, 2017, 2016 and 2015, respectively.

Defined Benefit Plans (other than multiemployer defined benefit pension plans discussed below) — WM Holdings sponsors a defined benefit plan for certain employees who are subject to collective bargaining agreements that provide for participation in this plan. Further, certain of our Canadian subsidiaries sponsor defined benefit plans which have previously been frozen to new participants. As of December 31, 2017, the combined benefit obligation of these pension plans was \$126 million, and the plans had \$120 million of combined plan assets, resulting in an aggregate unfunded benefit obligation for these plans of \$6 million. As of December 31, 2016, the combined benefit obligation of these pension plans was

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

\$114 million, and the plans had \$103 million of combined plan assets, resulting in an aggregate unfunded benefit obligation for these plans of \$11 million.

In addition, WM Holdings and certain of its subsidiaries provided post-retirement health care and other benefits to eligible retirees. In conjunction with our acquisition of WM Holdings in July 1998, we limited participation in these plans to participating retirees as of December 31, 1998. The unfunded benefit obligation for these plans was \$23 million and \$26 million as of December 31, 2017 and 2016, respectively.

Our accrued benefit liabilities for our defined benefit pension and other post-retirement plans were \$29 million and \$37 million as of December 31, 2017 and 2016, respectively, and are included as components of accrued liabilities and long-term other liabilities in our Consolidated Balance Sheets.

Multiemployer Defined Benefit Pension Plans — We are a participating employer in a number of trustee-managed multiemployer defined benefit pension plans ("Multiemployer Pension Plans") for employees who are covered by collective bargaining agreements. The risks of participating in these Multiemployer Pension Plans are different from single-employer plans in that (i) assets contributed to the Multiemployer Pension Plan by one employer may be used to provide benefits to employees or former employees of other participating employers; (ii) if a participating employer stops contributing to the plan, the unfunded obligations of the plan may be required to be assumed by the remaining participating employers and (iii) if we choose to stop participating in any of our Multiemployer Pension Plans, we may be required to pay those plans a withdrawal amount based on the underfunded status of the plan. The following table outlines our participation in Multiemployer Pension Plans considered to be individually significant (dollar amounts in millions):

Expiration

	EIN/Pension Plan		otection Act Status(a)	FIP/RP		c	Date of Collective Bargaining																																																		
Pension Fund	Number	2017	2016	Status(b)(c)	2	2017		2017		2017		2017		2017		2017		2017		2017		2017		2017		2017		2017		2017		2017		2017		2017		2017		2017		2017		2017		2017		2017 2016		2017		2017		016	2	015	Agreement(s)
Automotive Industries Pension Plan	EIN: 94-1133245; Plan Number: 001	Critical and Declining	Critical and Declining	Implemented	\$	1	\$	1	\$	1	6/30/2018																																														
Distributors Association Warehousemen's Pension Trust	EIN: 94-0294755; Plan Number: 002	Oritical as of 5/31/2016	Critical as of 5/31/2015	Implemented		1		1		1	4/7/2018																																														
Local 731 Private Scavengers and Garage Attendants Pension Trust Fund	EIN: 36-6513567; Plan Number: 001	Not Endangered or Critical as of 9/30/2016	Not Endangered or Critical as of 9/30/2015	Implemented		7		7		7	Various dates through 10/31/2019																																														
Suburban Teamsters of Northern Illinois Pension Plan	EIN: 36-6155778; Plan Number: 001	Endangered	Endangered	Implemented		3		3		2	Various dates through 9/30/2022																																														
Teamsters Local 301 Pension Plan	EIN: 36-6492992; Plan Number: 001	Not Endangered or Critical	Not Endangered or Critical	Not Applicable		1		2		1	9/30/2018																																														
Western Conference of Teamsters Pension Plan	EIN: 91-6145047; Plan Number: 001	Not Endangered or Critical	Not Endangered or Critical	Not Applicable		27		25		24	Various dates through 9/30/2022																																														
Western Pennsylvania Teamsters and Employers Pension Plan	EIN: 25-6029946; Plan Number: 001	Critical (f)	Critical	Implemented		1		1		1	(f)																																														
					\$	41	\$	40	\$	37																																															
Contributions to other Multiemployer Pension Plans						6		7		6																																															
Total contributions to Multiemployer Pension Plans (e)					\$	47	\$	47	\$	43																																															

<sup>(</sup>a) Unless otherwise noted in the table above, the most recent Pension Protection Act zone status available in 2017 and 2016 is for the plan's year-end as of December 31, 2016 and 2015, respectively. The zone status is based on information that we received from the plan and is certified by the plan's actuary. As defined in the Pension Protection Act of 2006, among other factors, plans reported as critical are generally less than 65% funded and plans reported as

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

endangered are generally less than 80% funded. Under the Multiemployer Pension Reform Act of 2014, a plan is generally in critical and declining status if it (i) is certified to be in critical status pursuant to the Pension Protection Act of 2006 and (ii) is projected to be insolvent within the next 15 years or, in certain circumstances, 20 years.

As of the date the financial statements were issued, Forms 5500 were not available for the plan years ended in 2017.

- (b) The "FIP/RP Status" column indicates plans for which a Funding Improvement Plan ("FIP") or a Rehabilitation Plan ("RP") is either pending or has been implemented.
- (c) A Multiemployer Pension Plan that has been certified as endangered, seriously endangered or critical may begin to levy a statutory surcharge on contribution rates. Once authorized, the surcharge is at the rate of 5% for the first 12 months and 10% for any periods thereafter. Contributing employers, however, may eliminate the surcharge by entering into a collective bargaining agreement that meets the requirements of the applicable FIP or RP.
- (d) The Company was listed in the Form 5500 of the Multiemployer Pension Plans considered to be individually significant as providing more than 5% of the total contributions for each of the following plans and plan years:

	Year Contributions to Plan Exceeded 5% of Total Contributions (as of Plan's Year End)
Distributors Association Warehousemen's Pension Trust	5/31/2016 and 5/31/2015
Local 731 Private Scavengers and Garage Attendants Pension	
Trust Fund	9/30/2016 and 9/30/2015
Suburban Teamsters of Northern Illinois Pension Plan	12/31/2016 and 12/31/2015
Teamsters Local 301 Pension Plan	12/31/2016 and 12/31/2015

- (e) Total contributions to Multiemployer Pension Plans excludes contributions related to withdrawal liabilities discussed below.
- (f) The Company had a complete withdrawal from this plan during 2017 and correspondingly accrued a liability of \$11 million relating to such withdrawal. In January 2018, the Company received a withdrawal liability assessment from the fund and is in the process of finalizing its obligation amount and payment schedule.

The Company was subsequently notified that the Western Pennsylvania Teamsters and Employers Pension Plan is now in Critical and Declining status.

Our portion of the projected benefit obligation, plan assets and unfunded liability for the Multiemployer Pension Plans is not material to our financial position. However, the failure of participating employers to remain solvent could affect our portion of the plans' unfunded liability. Specific benefit levels provided by union pension plans are not negotiated with or known by the employer contributors.

In connection with our ongoing renegotiations of various collective bargaining agreements, we may discuss and negotiate for the complete or partial withdrawal from one or more of these pension plans. Further, business events, such as the discontinuation or nonrenewal of a customer contract, the decertification of a union, or relocation, reduction or discontinuance of certain operations, which result in the decline of Company contributions to a Multiemployer Pension Plan could trigger a partial or complete withdrawal. In the event of a withdrawal, we may incur expenses associated with our obligations for unfunded vested benefits at the time of the withdrawal. In 2017 and 2015, we recognized aggregate charges of \$12 million and \$51 million, respectively, to operating expenses for the withdrawal of certain bargaining units from Multiemployer Pension Plans. In 2016, we did not recognize any charges for the withdrawal from Multiemployer Pension Plans. Refer to Note 10 for additional information related to our obligations to Multiemployer Pension Plans for which we have withdrawn or partially withdrawn.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Multiemployer Plan Benefits Other Than Pensions — During the years ended December 31, 2017, 2016 and 2015, the Company made contributions of \$42 million, \$40 million and \$33 million, respectively, to multiemployer health and welfare plans that also provide other post-retirement employee benefits. Funding of benefit payments for plan participants are made at negotiated rates in the respective collective bargaining agreements as costs are incurred.

#### 10. Commitments and Contingencies

Financial Instruments — We have obtained letters of credit, surety bonds and insurance policies and have established trust funds and issued financial guarantees to support tax-exempt bonds, contracts, performance of landfill final capping, closure and post-closure requirements, environmental remediation and other obligations. Letters of credit generally are supported by our \$2.25 billion revolving credit facility and other credit facilities established for that purpose. These facilities are discussed further in Note 7. Surety bonds and insurance policies are supported by (i) a diverse group of third-party surety and insurance companies; (ii) an entity in which we have a noncontrolling financial interest or (iii) a wholly-owned insurance captive, the sole business of which is to issue surety bonds and/or insurance policies on our behalf.

Management does not expect that any claims against or draws on these instruments would have a material adverse effect on our financial condition, results of operations or cash flows. We have not experienced any unmanageable difficulty in obtaining the required financial assurance instruments for our current operations. In an ongoing effort to mitigate risks of future cost increases and reductions in available capacity, we continue to evaluate various options to access cost-effective sources of financial assurance.

Insurance — We carry insurance coverage for protection of our assets and operations from certain risks including general liability, automobile liability, workers' compensation, real and personal property, directors' and officers' liability, pollution legal liability and other coverages we believe are customary to the industry. Our exposure to loss for insurance claims is generally limited to the per-incident deductible under the related insurance policy. Our exposure could increase if our insurers are unable to meet their commitments on a timely basis.

We have retained a significant portion of the risks related to our general liability, automobile liability and workers' compensation claims programs. "General liability" refers to the self-insured portion of specific third-party claims made against us that may be covered under our commercial General Liability Insurance Policy. For our self-insured portions, the exposure for unpaid claims and associated expenses, including incurred but not reported losses, is based on an actuarial valuation or internal estimates. The accruals for these liabilities could be revised if future occurrences or loss development significantly differ from such valuations and estimates. In December 2017, we elected to use a wholly-owned insurance captive to insure the deductibles for our general liability, automobile liability and workers' compensation claims programs. As of December 31, 2017, both our commercial General Liability Insurance Policy and our workers' compensation insurance program carried self-insurance exposures of up to \$5 million per incident. As of December 31, 2017, our automobile liability insurance program included a per-incident deductible of up to \$10 million. Our receivable balance

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

associated with insurance claims was \$153 million and \$171 million as of December 31, 2017 and 2016, respectively. The changes to our insurance reserves for the years ended December 31 are summarized below (in millions):

	20	17(a)	2016
Balance as of January 1	\$	588	\$ 643
Self-insurance expense		142	71
Cash paid		(148)	 (126)
Balance as of December 31	\$	582	\$ 588
Current portion as of December 31	\$	107	\$ 133
Long-term portion as of December 31	\$	475	\$ 455

<sup>(</sup>a) Based on current estimates, we anticipate that most of our insurance reserves will be settled in cash over the next six years.

We previously chose to maintain a Directors' and Officers' Liability Insurance policy that covered only individual executive liability, often referred to as "Broad Form Side A." During 2017, due to attractive pricing, we converted to a traditional full coverage policy, and subject to the terms of that policy, the Company is now insured for money it advances for defense costs or pays as indemnity to the insured directors and officers in excess of applicable deductibles.

We do not expect the impact of any known casualty, property, environmental or other contingency to have a material impact on our financial condition, results of operations or cash flows.

Operating Leases — Operating lease expense was \$134 million, \$125 million and \$140 million during 2017, 2016 and 2015, respectively. Minimum contractual payments due for our operating lease obligations are \$101 million in 2018, \$83 million in 2019, \$72 million in 2020, \$54 million in 2021, \$31 million in 2022 and \$248 million thereafter. Our minimum contractual payments for lease agreements during future periods is less than current year operating lease expense primarily due to the effect of short-term leases.

#### Other Commitments

- Disposal We have several agreements expiring at various dates through 2052 that require us to dispose of a minimum number of tons at third-party disposal facilities. Under these put-or-pay agreements, we are required to pay for the agreed upon minimum volumes regardless of the actual number of tons placed at the facilities. Following the 2014 divestiture of our Wheelabrator business, which provides waste-to-energy services and manages waste-to-energy facilities and independent power production plants, we entered into several agreements to dispose of a minimum number of tons of waste at certain Wheelabrator facilities. These agreements generally provide for fixed volume commitments with certain market price resets through 2021. We generally fulfill our minimum contractual obligations by disposing of volumes collected in the ordinary course of business at these disposal facilities.
- Waste Paper We are party to waste paper purchase agreements expiring at various dates through 2019 that require us to purchase a minimum number of tons of waste paper. The cost per ton we pay is based on market prices.
- Royalties We have various arrangements that require us to make royalty payments to third parties including prior
  land owners, lessors or host communities where our operations are located. Our obligations generally are based on
  per ton rates for waste actually received at our transfer stations or landfills. Royalty agreements that are noncancelable and require fixed or minimum payments are included in our capital leases and other debt obligations in
  our Consolidated Balance Sheets as disclosed in Note 7.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Our unconditional purchase obligations are generally established in the ordinary course of our business and are structured in a manner that provides us with access to important resources at competitive, market-driven rates. As of December 31, 2017, our estimated minimum obligations for the above-described purchase obligations, which are not recognized in our Consolidated Balance Sheets, were \$143 million in 2018, \$113 million in 2019, \$95 million in 2020, \$87 million in 2021, \$20 million in 2022 and \$325 million thereafter. We may also establish unconditional purchase obligations in conjunction with acquisitions or divestitures. Our actual future minimum obligations under these outstanding purchase agreements are generally quantity driven and, as a result, our associated financial obligations are not fixed as of December 31, 2017. For contracts that require us to purchase minimum quantities of goods or services, we have estimated our future minimum obligations based on the current market values of the underlying products or services. We currently expect the products and services provided by these agreements to continue to meet the needs of our ongoing operations. Therefore, we do not expect these established arrangements to materially impact our future financial position, results of operations or cash flows

Guarantees — We have entered into the following guarantee agreements associated with our operations:

- As of December 31, 2017, WM Holdings has fully and unconditionally guaranteed all of WM's senior indebtedness, including its senior notes, \$2.25 billion revolving credit facility and certain letter of credit facilities, which mature through 2045. WM has fully and unconditionally guaranteed the senior indebtedness of WM Holdings, which matures in 2026. Performance under these guarantee agreements would be required if either party defaulted on their respective obligations. No additional liabilities have been recorded for these intercompany guarantees because all of the underlying obligations are reflected in our Consolidated Balance Sheets. See Note 21 for further discussion.
- WM and WM Holdings have guaranteed subsidiary debt obligations, including the Canadian term loan and revolving credit facility, tax-exempt bonds, capital leases and other indebtedness. If a subsidiary fails to meet its obligations associated with its debt agreements as they come due, WM or WM Holdings will be required to perform under the related guarantee agreement. No additional liabilities have been recorded for these intercompany guarantees because all of the underlying obligations are reflected in our Consolidated Balance Sheets. See Note 7 for information related to the balances and maturities of these debt obligations.
- Before the divestiture of our Wheelabrator business in 2014, WM had guaranteed certain operational and financial performance obligations of Wheelabrator and its subsidiaries in the ordinary course of business. In conjunction with the divestiture, certain WM guarantees of Wheelabrator obligations were terminated, but others continued and are now guarantees of third-party obligations. When possible, Wheelabrator seeks to have the applicable third-party beneficiaries release WM from these guarantees, but until such efforts are successful, or the underlying financial commitments are restructured. WM has agreed to retain the guarantees and, in exchange, receive a credit support fee or other financial assurances guaranteed by a third-party financial institution to protect WM in the event of noncompliance by Wheelabrator. The most significant of these guarantees specifically define WM's maximum financial obligation over the course of the relevant agreements. As of December 31, 2017, WM's maximum future payments under these guarantees were \$96 million. WM's exposure under certain of the performance guarantees is variable and a maximum exposure is not defined. We have recorded the fair value of the operational and financial performance guarantees, some of which could extend through 2038 if not terminated, in our Consolidated Balance Sheets. The estimated fair value of WM's potential obligation associated with guarantees of Wheelabrator's obligations (net of credit support fee or indemnification asset) decreased from \$11 million as of December 31, 2016 to \$2 million as of December 31, 2017 primarily due to the release of certain performance guarantees by third-party beneficiaries. We currently do not expect the financial impact of such operational and financial performance guarantees to materially exceed the recorded fair value.
- Certain of our subsidiaries have guaranteed the market or contractually-determined value of certain homeowners' properties that are adjacent to or near certain of our landfills. These guarantee agreements extend over the life of the respective landfill. Under these agreements, we would be responsible for the difference, if any, between the

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

sale value and the guaranteed market or contractually-determined value of the homeowners' properties. As of December 31, 2017, we have agreements guaranteeing certain market value losses for approximately 800 homeowners' properties adjacent to or near 20 of our landfills. We do not believe that these contingent obligations will have a material adverse effect on the Company's financial position, results of operations or cash flows.

- We have indemnified the purchasers of businesses or divested assets for the occurrence of specified events under certain of our divestiture agreements. Other than certain identified items that are currently recorded as obligations, we do not believe that it is possible to determine the contingent obligations associated with these indemnities. Additionally, under certain of our acquisition agreements, we have provided for additional consideration to be paid to the sellers if established financial targets or other market conditions are achieved post-closing and we have recognized liabilities for these contingent obligations based on an estimate of the fair value of these contingencies at the time of acquisition. We do not currently believe that contingent obligations to provide indemnification or pay additional post-closing consideration in connection with our divestitures or acquisitions will have a material adverse effect on the Company's business, financial condition, results of operations or cash flows.
- WM and WM Holdings guarantee the service, lease, financial and general operating obligations of certain of their subsidiaries. If such a subsidiary fails to meet its contractual obligations as they come due, the guaranter has an unconditional obligation to perform on its behalf. No additional liability has been recorded for service, financial or general operating guarantees because the subsidiaries' obligations are properly accounted for as costs of operations as services are provided or general operating obligations as incurred. No additional liability has been recorded for the lease guarantees because the subsidiaries' obligations are properly accounted for as operating or capital leases, as appropriate.

Environmental Matters — A significant portion of our operating costs and capital expenditures could be characterized as costs of environmental protection. The nature of our operations, particularly with respect to the construction, operation and maintenance of our landfills, subjects us to an array of laws and regulations relating to the protection of the environment. Under current laws and regulations, we may have liabilities for environmental damage caused by our operations, or for damage caused by conditions that existed before we acquired a site. In addition to remediation activity required by state or local authorities, such liabilities include PRP investigations. The costs associated with these liabilities can include settlements, certain legal and consultant fees, as well as incremental internal and external costs directly associated with site investigation and clean-up.

As of December 31, 2017, we have been notified by the government that we are a PRP in connection with 75 locations listed on the Environmental Protection Agency's ("EPA's") Superfund National Priorities List ("NPL"). Of the 75 sites at which claims have been made against us, 15 are sites we own. Each of the NPL sites we own was initially developed by others as a landfill disposal facility. At each of these facilities, we are working in conjunction with the government to evaluate or remediate identified site problems, and we have either agreed with other legally liable parties on an arrangement for sharing the costs of remediation or are working toward a cost-sharing agreement. We generally expect to receive any amounts due not own, are at various procedural stages under the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, known as CERCLA or Superfund.

The majority of proceedings involving NPL sites that we do not own are based on allegations that certain of our subsidiaries (or their predecessors) transported hazardous substances to the sites, often prior to our acquisition of these subsidiaries. CERCLA generally provides for liability for those parties owning, operating, transporting to or disposing at the sites. Proceedings arising under Superfund typically involve numerous waste generators and other waste transportation and disposal companies and seek to allocate or recover costs associated with site investigation and remediation, which costs could be substantial and could have a material adverse effect on our consolidated financial statements. At some of

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

the sites at which we have been identified as a PRP, our liability is well defined as a consequence of a governmental decision and an agreement among liable parties as to the share each will pay for implementing that remedy. At other sites, where no remedy has been selected or the liable parties have been unable to agree on an appropriate allocation, our future costs are uncertain.

On October 11, 2017, the EPA issued its Record of Decision ("ROD") with respect to the previously proposed remediation plan for the San Jacinto waste pits in Harris County, Texas. McGinnes Industrial Maintenance Corporation ("MIMC"), an indirect wholly-owned subsidiary of WM, has been named as a PRP. MIMC operated the waste pits from 1965 to 1966. In 1998, WM acquired the stock of the parent entity of MIMC. MIMC has been working with the EPA and other named PRPs as the process of addressing the site proceeds. During 2016, MIMC's environmental remediation liability reserves were increased by \$44 million to record its estimated potential share of the EPA's proposed remedy and related costs and MIMC filed comments, detailing its disagreement with the proposed remedy. MIMC remains in disagreement with the remedy set forth in the ROD, and continues to recommend a solution that better protects the environment and public health. Due to the increased estimated cost of the remedy set forth in the ROD, MIMC's environmental remediation liability reserves have been further increased by \$11 million during 2017 to record its estimated potential share and related costs. MIMC's ultimate liability could be materially different from current estimates. Allocation of responsibility among the PRPs for the proposed remedy has not been established, and MIMC will continue to engage the EPA regarding the remediation plan selected in the ROD. As of December 31, 2017 and 2016, our recorded liability for MIMC's estimated potential share of the EPA's proposed remedy and related costs was \$55 million and \$46 million, respectively.

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, or such proceedings are known to be contemplated, unless we reasonably believe that the matter will result in no monetary sanctions, or in monetary sanctions, exclusive of interest and costs, of less than \$100,000. The following matters are disclosed in accordance with that requirement. We do not currently believe that the eventual outcome of any such matters, individually or in the aggregate, could have a material adverse effect on the Company's business, financial condition, results of operations or cash flows.

On January 10, 2017, the Pennsylvania Department of Environmental Protection ("DEP") solid waste program advised us that it intends to seek civil penalties against the Grows North and Tullytown Landfills ("Grows/Tullytown"), located in southeast Pennsylvania and owned by indirect wholly-owned subsidiaries of WM, related to operational issues, including litter and leachate discharges. Additionally, we received notice on March 15, 2017 that the DEP clean water program also intends to seek civil penalties related to similar underlying events and operational issues at Grows/Tullytown. On September 19, 2017, we received an updated assessment proposal from the DEP for these matters. Our internal review of these matters is in process.

On July 10, 2013, the EPA issued a Notice of Violation ("NOV") to Waste Management of Wisconsin, Inc., an indirect wholly-owned subsidiary of WM, alleging violations of the Resource Conservation Recovery Act concerning acceptance of certain waste that was not permitted to be disposed of at the Metro Recycling & Disposal Facility in Franklin, Wisconsin. The parties are exchanging information and working to resolve the NOV.

Waste Management of Hawaii, Inc. ("WMHI"), an indirect wholly-owned subsidiary of WM, may face civil claims from the Hawaii Department of Health and/or the EPA based on stormwater discharges at the Waimanalo Gulch Sanitary Landfill, which WMHI operates for the city and county of Honolulu, following two major rainstorms in December 2010 and January 2011 and alleged violations of stormwater permit requirements prior to and after the storms.

From time to time, we are also named as defendants in personal injury and property damage lawsuits, including purported class actions, on the basis of having owned, operated or transported waste to a disposal facility that is alleged to

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

have contaminated the environment or, in certain cases, on the basis of having conducted environmental remediation activities at sites. Some of the lawsuits may seek to have us pay the costs of monitoring of allegedly affected sites and health care examinations of allegedly affected persons for a substantial period of time even where no actual damage is proven. While we believe we have meritorious defenses to these lawsuits, the ultimate resolution is often substantially uncertain due to the difficulty of determining the cause, extent and impact of alleged contamination (which may have occurred over a long period of time), the potential for successive groups of complainants to emerge, the diversity of the individual plaintiffs' circumstances, and the potential contribution or indemnification obligations of co-defendants or other third parties, among other factors. Additionally, we often enter into agreements with landowners imposing obligations on us to meet certain regulatory or contractual conditions upon site closure or upon termination of the agreements. Compliance with these agreements inherently involves subjective determinations and may result in disputes, including litigation.

Litigation — As a large company with operations across the U.S. and Canada, we are subject to various proceedings, lawsuits, disputes and claims arising in the ordinary course of our business. Many of these actions raise complex factual and legal issues and are subject to uncertainties. Actions that have been filed against us, and that may be filed against us in the future, include personal injury, property damage, commercial, customer, and employment-related claims, including purported state and national class action lawsuits related to: alleged environmental contamination, including releases of hazardous material and odors; sales and marketing practices, customer service agreements and prices and fees; and federal and state wage and hour and other laws. The plaintiffs in some actions seek unspecified damages or injunctive relief, or both. These actions are in various procedural stages, and some are covered in part by insurance. We currently do not believe that the eventual outcome of any such actions will have a material adverse effect on the Company's business, financial condition, results of operations or cash flows.

WM's charter and bylaws provide that WM shall indemnify against all liabilities and expenses, and upon request shall advance expenses to any person, who is subject to a pending or threatened proceeding because such person is or was a director or officer of the Company. Such indemnification is required to the maximum extent permitted under Delaware law. Accordingly, the director or officer must execute an undertaking to reimburse the Company for any fees advanced if it is later determined that the director or officer was not permitted to have such fees advanced under Delaware law. Additionally, the Company has direct contractual obligations to provide indemnification to each of the members of WM's Board of Directors and each of WM's executive officers. The Company may incur substantial expenses in connection with the fulfillment of its advancement of costs and indemnification obligations in connection with actions or proceedings that may be brought against its former or current officers, directors and employees.

Multiemployer Defined Benefit Pension Plans — About 20% of our workforce is covered by collective bargaining agreements with various local unions across the U.S. and Canada. As a result of some of these agreements, certain of our subsidiaries are participating employers in a number of Multiemployer Pension Plans for the covered employees. Refer to Note 9 for additional information about our participation in Multiemployer Pension Plans considered individually significant. In connection with our ongoing renegotiation of various collective bargaining agreements, we may discuss and negotiate for the complete or partial withdrawal from one or more of these Multiemployer Pension Plans. A complete or partial withdrawal from a Multiemployer Pension Plan may also occur if employees covered by a collective bargaining agreement vote to decertify a union from continuing to represent them. Any other circumstance resulting in a decline in Company contributions to a Multiemployer Pension Plan through a reduction in the labor force, whether through attrition over time or through a business event (such as the discontinuation or nonrenewal of a customer contract, the decertification of a union, or relocation, reduction or discontinuance of certain operations) may also trigger a complete or partial withdrawal from one or more of these pension plans.

In 2017, we recognized \$12 million of charges to operating expenses for the withdrawal from certain underfunded Multiemployer Pension Plans. In 2015, we recognized a \$51 million charge in operating expenses for the withdrawal from certain underfunded Multiemployer Pension Plans, nearly all of which was associated with our withdrawals from the Central States, Southeast and Southwest Areas Pension Plan and the Teamsters Employers Local 945 Pension Fund. In 2016, we did not recognize any charges for the withdrawal from Multiemployer Pension Plans.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

We do not believe that any future liability relating to our past or current participation in, or withdrawals from, the Multiemployer Pension Plans to which we contribute will have a material adverse effect on our business, financial condition or liquidity. However, liability for future withdrawals could have a material adverse effect on our results of operations or cash flows for a particular reporting period, depending on the number of employees withdrawn and the financial condition of the Multiemployer Pension Plan(s) at the time of such withdrawal(s).

Tax Matters — We maintain a liability for uncertain tax positions, the balance of which management believes is adequate. Results of audit assessments by taxing authorities are not currently expected to have a material adverse effect on our financial condition, results of operations or cash flows. See Note 8 for additional discussion regarding tax matters.

## 11. Asset Impairments and Unusual Items

#### (Income) Expense from Divestitures, Asset Impairments and Unusual Items, Net

The following table summarizes the major components of (income) expense from divestitures, asset impairments and unusual items, net for the years ended December 31 (in millions):

	 2017	2	2016	2015
(Income) expense from divestitures	\$ (38)	\$	9	\$ (7)
Asset impairments	41		59	89
Other	(19)		44	_
	\$ (16)	\$	112	\$ 82

During the year ended December 31, 2017, we recognized net income of \$16 million, primarily related to (i) gains of \$31 million from the sale of certain oil and gas producing properties and (ii) a \$30 million reduction in post-closing, performance-based contingent consideration obligations associated with an acquired business in our EES organization. These gains were partially offset by (i) \$34 million of goodwill impairment charges primarily related to our EES organization; (ii) \$11 million of charges to adjust our subsidiary's estimated potential share of an environmental remediation liability and related costs for a closed site in Harris County, Texas, as discussed in Note 10 and (iii) \$7 million of charges to write down certain renewable energy assets.

During the year ended December 31, 2016, we recognized net charges of \$112 million, primarily related to (i) \$44 million of charges to adjust our subsidiary's estimated potential share of an environmental remediation liability and related costs for a closed site in Harris County, Texas, as discussed in Note 10; (ii) a \$43 million charge to impair a landfill in Western Pennsylvania due to a loss of expected volumes; (iii) \$12 million of goodwill impairment charges primarily related to our LampTracker® reporting unit and (iv) an \$8 million loss on the sale of a majority-owned organics company.

During the year ended December 31, 2015, we recognized net charges of \$82 million, primarily related to (i) \$66 million of charges to impair certain oil and gas producing properties as a result of declines in oil and gas prices; (ii) \$18 million of charges to write down or divest certain assets in our recycling operations and (iii) a \$5 million impairment of a landfill in our Western Canada Area due to revised post-closure cost estimates. Partially offsetting these charges was \$7 million of net gains from divestitures, including a \$6 million gain on the sale of an oil and gas producing property in 2015.

See Note 3 for additional information related to the accounting policy and analysis involved in identifying and calculating impairments; and see Note 19 for additional information related to the impact of impairments on the results of operations of our reportable segments.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

# Equity in Net Losses of Unconsolidated Entities

During the year ended December 31, 2017, we recognized \$29 million of impairment charges to write down equity method investments in waste diversion technology companies to their estimated fair values.

#### Other, Net

During the years ended December 31, 2017, 2016 and 2015, we recognized impairment charges of \$11 million, \$42 million and \$5 million, respectively, related to other-than-temporary declines in the value of minority-owned investments in waste diversion technology companies. We wrote down our investments to their estimated fair values which was primarily determined using an income approach based on estimated future cash flow projections and, to a lesser extent, third-party investors' recent transactions in these securities.

# 12. Accumulated Other Comprehensive Income (Loss)

The changes in the balances of each component of accumulated other comprehensive income (loss), net of tax, which is included as a component of Waste Management, Inc. stockholders' equity, are as follows (in millions, with amounts in parentheses representing decreases to accumulated other comprehensive income):

	ivative ruments	Available- for-Sale Securities		Foreign Currency Translation Adjustments		Currency Translation		Post- Retirement Benefit Obligations		Т	`otal
Balance, December 31, 2014	\$ (61)	\$	10	\$	84	\$	(10)	\$	23		
Other comprehensive income (loss) before reclassifications, net of tax expense (benefit) of \$20, \$(1), \$0 and \$1, respectively	30		(2)		(164)		2		(134)		
Amounts reclassified from accumulated other											
comprehensive (income) loss, net of tax (expense) benefit of \$(14), \$0, \$0 and \$0, respectively	(21)				5				(16)		
Net current period other comprehensive income (loss)	9		(2)		(159)		2		(150)		
Balance, December 31, 2015	\$ (52)	\$	8	\$	(75)	\$	(8)	\$	(127)		
Other comprehensive income (loss) before reclassifications, net of tax expense (benefit) of \$(4), \$3, \$0 and \$0, respectively	(7)		5		26		_		24		
Amounts reclassified from accumulated other comprehensive (income) loss, net of tax (expense) benefit of \$12, \$0, \$0 and \$1, respectively	19		_		2		2		23		
Net current period other comprehensive income (loss)	12		5		28		2		47		
Balance, December 31, 2016	\$ (40)	\$	13	\$	(47)	\$	(6)	\$	(80)		
Other comprehensive income (loss) before reclassifications, net of tax expense (benefit) of \$0, \$2, \$0 and \$1, respectively	_		3		76		3		82		
Amounts reclassified from accumulated other comprehensive (income) loss, net of tax (expense) benefit of \$5, \$(1), \$0 and \$0, respectively	7		(1)		_		_		6		
Net current period other comprehensive income (loss)	7		2		76		3		88		
Balance, December 31, 2017	\$ (33)	\$	15	\$	29	\$	(3)	\$	8		

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

There have been no derivatives outstanding subsequent to March 31, 2016. The amounts of other comprehensive income (loss) before reclassifications associated with the effective portion of derivatives designated as cash flow hedges for the years ended December 31 are as follows (in millions):

	20	16	2015
Foreign currency derivatives	\$	(11)	\$ 50
Tax (expense) benefit		4	(20)
Net of tax (expense) benefit	\$	(7)	\$ 30

The significant amounts reclassified out of each component of accumulated other comprehensive income (loss) associated with our previously terminated cash flow hedges for the years ended December 31 are as follows (in millions, with amounts in parentheses representing debits to the statement of operations classification):

				Statement of
	2017	2016	2015	Operations Classification
Forward-starting interest rate swaps	\$ (11)	\$ (10)	\$ (12)	Interest expense, net
Treasury rate locks	(1)	(1)	(4)	Interest expense, net
Foreign currency derivatives		(20)	51	Other, net
	(12)	(31)	35	Total before tax
	5	12	(14)	Tax (expense) benefit
Total reclassifications for the period	\$ (7)	\$ (19)	\$ 21	Net of tax

# 13. Capital Stock, Dividends and Common Stock Repurchase Program

## Capital Stock

We have 1.5 billion shares of authorized common stock with a par value of \$0.01 per common share. As of December 31, 2017, we had 433.3 million shares of common stock issued and outstanding. The Board of Directors is authorized to issue preferred stock in series, and with respect to each series, to fix its designation, relative rights (including voting, dividend, conversion, sinking fund, and redemption rights), preferences (including dividends and liquidation) and limitations. We have 10 million shares of authorized preferred stock, \$0.01 par value, none of which is currently outstanding.

## Dividends

Our quarterly dividends have been declared by our Board of Directors. Cash dividends declared and paid were \$750 million in 2017, or \$1.70 per common share, \$726 million in 2016, or \$1.64 per common share, and \$695 million in 2015, or \$1.54 per common share.

In December 2017, we announced that our Board of Directors expects to increase the quarterly dividend from \$0.425 to \$0.465 per share for dividends declared in 2018. However, all future dividend declarations are at the discretion of the Board of Directors and depend on various factors, including our net earnings, financial condition, cash required for future business plans and other factors the Board of Directors may deem relevant.

# Common Stock Repurchase Program

The Company repurchases shares of its common stock as part of capital allocation programs authorized by our Board of Directors. Share repurchases during the reported periods were completed through accelerated share repurchase ("ASR") agreements. The terms of these agreements required that we deliver cash at the beginning of each ASR repurchase period.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

In exchange, we received a portion of the total shares expected to be repurchased based on the then-current market price of our common stock. The remaining shares repurchased over the course of each repurchase period are delivered to us once the repurchase period is complete. Shares repurchased are reflected in the period the shares are delivered to us. Additional information related to our ASR agreements is included below. The following is a summary of our share repurchases under our common stock repurchase program for the years ended December 31:

	2	017(a)	2	2016(b)	2015(c)
Shares repurchased (in thousands)		10,058		11,241	14,823
Weighted average price per share	\$	77.67	\$	60.49	\$ 49.83
Total repurchases (in millions)	\$	750	\$	725	\$ 600

- (a) During 2017, we executed and completed two ASR agreements to repurchase \$750 million of our common stock. Our "Shares repurchased" includes the 0.4 million shares related to the ASR agreement executed in November 2016, discussed further below.
- (b) During 2016, we executed four ASR agreements to repurchase \$725 million of our common stock. The ASR agreement entered into in November 2016 was for the repurchase of \$225 million of our common stock and was completed in February 2017. We received a total of 3.2 million shares based on a final weighted average price per share during the repurchase period of \$69.43.
- (c) During 2015, we executed and completed two ASR agreements to repurchase \$600 million of our common stock. Our "Shares repurchased" also includes 2.8 million shares related to ASR agreements that were executed in 2014.

We account for ASR agreements as two separate transactions: (i) as shares of reacquired common stock for the shares delivered to us upon effectiveness of the ASR agreement and (ii) as a forward contract indexed to our own common stock for the undelivered shares. The initial delivery of shares is included in treasury stock at cost and results in an immediate reduction of the outstanding shares used to calculate the weighted average common shares outstanding for basic and diluted earnings per share. The forward contracts indexed to our own stock meet the criteria for equity classification, and these amounts are initially recorded in additional paid-in capital and reclassified to treasury stock upon completion of the ASR agreement.

We announced in December 2017 that the Board of Directors has authorized up to \$1.25 billion in future share repurchases. Any future share repurchases will be made at the discretion of management and will depend on factors similar to those considered by the Board of Directors in making dividend declarations, including our net earnings, financial condition and cash required for future business plans.

#### 14. Equity-Based Compensation

## Employee Stock Purchase Plan

We have an Employee Stock Purchase Plan ("ESPP") under which employees that have been employed for at least 30 days may purchase shares of our common stock at a discount. The plan provides for two offering periods for purchases: January through June and July through December. At the end of each offering period, enrolled employees purchase shares of our common stock at a price equal to 85% of the lesser of the market value of the stock on the first and last day of such offering period. The purchases are made at the end of an offering period with funds accumulated through payroll deductions over the course of the offering period. Subject to limitations set forth in the plan and under IRS regulations, eligible employees may elect to have up to 10% of their base pay deducted during the offering period. The total number of shares issued under the plan for the offering periods in 2017, 2016 and 2015 was approximately 594,000, 647,000 and 786,000, respectively. Including the impact of the January 2018 issuance of shares associated with the July to December 2017 offering period, 1.9 million shares remain available for issuance under the plan.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Accounting for our ESPP increased annual compensation expense by \$7 million, or \$4 million net of tax expense, for 2017 and 2016 and \$6 million, or \$4 million net of tax expense, for 2015.

## Employee Stock Incentive Plans

In May 2014, our stockholders approved our 2014 Stock Incentive Plan (the "2014 Plan") to replace our 2009 Stock Incentive Plan (the "2009 Plan"). The 2014 Plan authorized 23.8 million shares of our common stock for issuance pursuant to the 2014 Plan, plus the approximately 1.1 million shares that then remained available for issuance under the 2009 Plan, and any shares subject to outstanding awards under the 2009 Plan that are subsequently cancelled, forfeited, terminate, expire or lapse. As of December 31, 2017, approximately 21.4 million shares were available for future grants under the 2014 Plan. All of our equity-based compensation awards described herein have been made pursuant to either our 2009 Plan or our 2014 Plan, collectively referred to as the "Incentive Plans." We currently utilize treasury shares to meet the needs of our equity-based compensation programs.

Pursuant to the Incentive Plans, we have the ability to issue stock options, stock appreciation rights and stock awards, including restricted stock, restricted stock units ("RSUs") and performance share units ("PSUs"). The terms and conditions of equity awards granted under the Incentive Plans are determined by the Management Development and Compensation Committee of our Board of Directors.

The 2017 annual Incentive Plan awards granted to the Company's senior leadership team, which generally includes the Company's executive officers, included a combination of PSUs and stock options. The annual Incentive Plan awards granted to certain key employees included a combination of PSUs, RSUs and stock options in 2017. The Company has also periodically granted RSUs and stock options to employees working on key initiatives, in connection with new hires and promotions and to field-based managers.

Restricted Stock Units — A summary of our RSUs is presented in the table below (units in thousands):

		we	Per Share
	Units		Fair Value
Unvested as of January 1, 2017	490	\$	51.32
Granted	138	\$	73.67
Vested	(169)	\$	42.65
Forfeited	(15)	\$	61.62
Unvested as of December 31, 2017	444	\$	61.20

Weighted Average

The total fair market value of RSUs that vested during the years ended December 31, 2017, 2016 and 2015 was \$12 million, \$12 million and \$13 million, respectively. During the year ended December 31, 2017, we issued approximately 113,000 shares of common stock for these vested RSUs, net of approximately 56,000 units deferred or used for payment of associated taxes.

RSUs may not be voted or sold by award recipients until time-based vesting restrictions have lapsed. RSUs primarily provide for three-year cliff vesting and include dividend equivalents accumulated during the vesting period. Unvested units are subject to forfeiture in the event of voluntary or for-cause termination. RSUs are subject to pro-rata vesting upon an employee's retirement or involuntary termination other than for cause and become immediately vested in the event of an employee's death or disability.

Compensation expense associated with RSUs is measured based on the grant-date fair value of our common stock and is recognized on a straight-line basis over the required employment period, which is generally the vesting period.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Compensation expense is only recognized for those awards that we expect to vest, which we estimate based upon an assessment of expected forfeitures.

Performance Share Units — Two types of PSUs are currently outstanding: (i) PSUs for which payout is dependent on total shareholder return relative to the S&P 500 ("TSR PSUs") and (ii) PSUs for which payout is dependent on the Company's performance against pre-established adjusted cash flow metrics ("Cash Flow PSUs"). Both types of PSUs are payable in shares of common stock after the end of a three-year performance period, when the Company's financial performance for the entire performance period is reported, typically in mid- to late-February of the succeeding year. At the end of the performance period, the number of shares awarded can range from 0% to 200% of the targeted amount, depending on the performance against the pre-established targets. A summary of our PSUs, at 100% of the targeted amount, is presented in the table below (units in thousands):

		Wei	ighted Average
			Per Share
	Units		Fair Value
Unvested as of January 1, 2017	1,505	\$	68.98
Granted	400	\$	84.54
Vested	(570)	\$	55.22
Forfeited	(36)	\$	85.57
Unvested as of December 31, 2017	1,299	\$	84.78

The determination of achievement of performance results and corresponding vesting of PSUs for the three-year performance period ended December 31, 2017 was performed by the Management Development and Compensation Committee in February 2018. Accordingly, vesting information for such awards is not included in the table above as of December 31, 2017. The "vested" PSUs are for the three-year performance period ended December 31, 2016, as achievement of performance results and corresponding vesting was determined in February 2017. The Company's financial results, as measured for purposes of these awards, achieved the maximum performance criteria. Accordingly, recipients of these PSU awards were entitled to receive a payout of 200% of the vested TSR PSUs and Cash Flow PSUs. In February 2017, approximately 1,140,000 PSUs vested and we issued approximately 721,000 shares of common stock for these vested PSUs, net of units deferred or used for payment of associated taxes.

The shares of common stock that were issued or deferred during the years ended December 31, 2017, 2016 and 2015 for prior PSU award grants had a fair market value of \$80 million, \$50 million and \$35 million, respectively. PSUs have no voting rights. PSUs receive dividend equivalents that are paid out in cash based on the number of shares that vest at the end of the awards' performance period. Subject to attainment of the performance metrics described above, PSUs are payable to an employee (or his beneficiary) upon death or disability as if that employee had remained employed until the end of the performance period, are generally subject to pro-rata vesting upon an employee's retirement or involuntary termination other than for cause and are subject to forfeiture in the event of voluntary or for-cause termination.

Compensation expense associated with our Cash Flow PSUs that continue to vest based on future performance is primarily measured based on the fair value of our common stock at the end of each reporting period until the performance period ends. Beginning in 2017, compensation expense associated with our Cash Flow PSUs is based on the grant-date fair value of our common stock. Compensation expense is recognized ratably over the performance period based on our estimated achievement of the established performance criteria. Compensation expense is only recognized for those awards that we expect to vest, which we estimate based upon an assessment of both the probability that the performance criteria will be achieved and expected forfeitures.

The grant-date fair value of our TSR PSUs is based on a Monte Carlo valuation and compensation expense is recognized on a straight-line basis over the vesting period. Compensation expense is recognized for all TSR PSUs whether or not the market conditions are achieved less expected forfeitures.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Deferred Units — Certain employees can elect to defer some or all of the vested RSU or PSU awards until a specified date or dates they choose. Deferred units are not invested, nor do they earn interest, but deferred amounts do receive dividend equivalents paid in cash during deferral at the same time and at the same rate as dividends on the Company's common stock. Deferred amounts are paid out in shares of common stock at the end of the deferral period. As of December 31, 2017, we had approximately 203,000 vested deferred units outstanding.

Stock Options — Stock options granted vest primarily in 25% increments on the first two anniversaries of the date of grant with the remaining 50% vesting on the third anniversary. The exercise price of the options is the average of the high and low market value of our common stock on the date of grant, and the options have a term of 10 years. A summary of our stock options is presented in the table below (options in thousands):

	Options	P	hted Average Per Share ercise Price
Outstanding as of January 1, 2017	5,643	\$	45.12
Granted	1,732	\$	65.45
Exercised	(2,331)	\$	42.19
Forfeited or expired	(159)	\$	53.35
Outstanding as of December 31, 2017 (a)	4,885	\$	53.46
Exercisable as of December 31, 2017 (b)	2,124	\$	41.56

- (a) Stock options outstanding as of December 31, 2017 have a weighted average remaining contractual term of 6.5 years and an aggregate intrinsic value of \$160 million based on the market value of our common stock on December 31, 2017.
- (b) Stock options exercisable as of December 31, 2017 have an aggregate intrinsic value of \$95 million based on the market value of our common stock on December 31, 2017.

We received cash proceeds of \$95 million, \$63 million and \$77 million during the years ended December 31, 2017, 2016 and 2015, respectively, from employee stock option exercises. The aggregate intrinsic value of stock options exercised during the years ended December 31, 2017, 2016 and 2015 was \$71 million, \$67 million and \$37 million, respectively.

Stock options exercisable as of December 31, 2017 were as follows (options in thousands):

Range of Exercise Prices	Options	Weighted Average Per Share Options Exercise Price		Weighted Average Remaining Years	
\$32.315-\$40.00	1,127	\$	36.13	3.6	
\$40.01-\$50.00	541	\$	41.37	6.2	
\$50.01-\$56.235	456	\$	55.21	7.5	
\$32.315-\$56.235	2,124	\$	41.56	5.1	

All unvested stock options shall become exercisable upon the award recipient's death or disability. In the event of a recipient's retirement, stock options shall continue to vest pursuant to the original schedule set forth in the award agreement. If the recipient is terminated by the Company without cause or voluntarily resigns, the recipient shall be entitled to exercise all stock options outstanding and exercisable within a specified time frame after such termination. All outstanding stock options, whether exercisable or not, are forfeited upon termination for cause.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

We account for our employee stock options under the fair value method of accounting using a Black-Scholes valuation model to measure stock option expense at the date of grant. The weighted average grant-date fair value of stock options granted during the years ended December 31, 2017, 2016 and 2015 was \$11.71, \$6.31 and \$5.56, respectively. The fair value of the stock options at the date of grant is amortized to expense over the vesting period less expected forfeitures, except for stock options granted to retirement-eligible employees, for which expense is accelerated over the period that the recipient becomes retirement-eligible. The following table presents the weighted average assumptions used to value employee stock options granted during the years ended December 31 under the Black-Scholes valuation model:

	2017	2016	2015
Expected option life	3.5 years	4.7 years	4.4 years
Expected volatility	15.3 %	18.4 %	16.7 %
Expected dividend yield	2.3 %	2.9 %	2.8 %
Risk-free interest rate	1.7 %	13%	1.4 %

The Company bases its expected option life on the expected exercise and termination behavior of its optionees and an appropriate model of the Company's future stock price. The expected volatility assumption is derived from the historical volatility of the Company's common stock over the most recent period commensurate with the estimated expected life of the Company's stock options, combined with other relevant factors including implied volatility in market-traded options on the Company's stock. The dividend yield is the annual rate of dividends per share over the exercise price of the option as of the grant date.

For the years ended December 31, 2017, 2016 and 2015, we recognized \$92 million, \$81 million and \$64 million, respectively, of compensation expense associated with RSU, PSU and stock option awards as a component of selling, general and administrative expenses in our Consolidated Statements of Operations. Our income tax expense for the years ended December 31, 2017, 2016 and 2015 includes related deferred income tax benefits of \$36 million, \$32 million and \$26 million, respectively. We have not capitalized any equity-based compensation costs during the reported years.

Compensation expense recognized in 2017 and 2016 increased when compared with 2015 primarily due to increases in fair value of our Cash Flow PSUs. In 2017, compensation expense further increased due to charges related to the retirement treatment for unexercised stock options of certain former employees. As of December 31, 2017, we estimate that \$62 million of currently unrecognized compensation expense will be recognized over a weighted average period of 1.4 years for our unvested RSU, PSU and stock option awards issued and outstanding.

## Non-Employee Director Plan

Our non-employee directors currently receive annual grants of shares of our common stock, generally payable in two equal installments, under the 2014 Plan described above.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

# 15. Earnings Per Share

Basic and diluted earnings per share were computed using the following common share data for the years ended December 31 (shares in millions):

	2017	2016	2015
Number of common shares outstanding at year-end	433.3	439.3	447.2
Effect of using weighted average common shares outstanding	5.5	4.2	5.5
Weighted average basic common shares outstanding	438.8	443.5	452.7
Dilutive effect of equity-based compensation awards and other contingently issuable			
shares (a)	3.1	3.0	3.2
Weighted average diluted common shares outstanding	441.9	446.5	455.9
Potentially issuable shares	8.1	9.8	10.2
Number of anti-dilutive potentially issuable shares excluded from diluted common			
shares outstanding	1.9	1.0	2.0

<sup>(</sup>a) As of January 1, 2017, we adopted ASU 2016-09 prospectively and no longer include excess tax benefits as assumed proceeds. See Note 2 for further discussion.

#### 16. Fair Value Measurements

# Assets and Liabilities Accounted for at Fair Value

Fair value is defined as the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When measuring assets and liabilities that are required to be recorded at fair value, the Company considers the principal or most advantageous market in which the Company would transact. Fair value is estimated by applying the following hierarchy, which prioritizes the inputs used to measure fair value into three levels and bases the categorization within the hierarchy upon the lowest level of input that is available and significant to the fair value measurement:

- Level 1 Quoted prices in active markets for identical assets or liabilities.
- Level 2 Observable inputs other than quoted prices in active markets for identical assets and liabilities, quoted prices for identical or similar assets or liabilities in inactive markets, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.
- Level 3 Inputs that are generally unobservable and typically reflect management's estimate of assumptions that market participants would use in pricing the asset or liability.

We use valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs. In measuring the fair value of our assets and liabilities, we use market data or assumptions that we believe market

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

participants would use in pricing an asset or liability, including assumptions about risk when appropriate. Our assets and liabilities that are measured at fair value on a recurring basis include the following as of December 31 (in millions):

				Fair V	Value Measurements Using			
2017	_	Total		Quoted Prices in Active Markets (Level 1)		Significant Other Observable Inputs (Level 2)		nificant bservable inputs evel 3)
Assets:  Money market funds	\$	225	s	225	\$	_	\$	_
Available-for-sale securities	ų.	49		_	Ψ	49	Ψ	_
Fixed-income securities		47	,	_		47		_
Redeemable preferred stock	_	55	<u> </u>					55
Total assets	\$	376	\$	225	\$	96	\$	55
2016								
Assets:								
Money market funds	\$	35	\$	35	\$	_	\$	_
Available-for-sale securities		46	)	_		46		
Fixed-income securities		39	)	_		39		_
Redeemable preferred stock		54	<u> </u>					54
Total assets	<u>\$</u>	174	\$	35	\$	85	\$	54

#### Money Market Funds

We invest portions of our restricted trust and escrow account balances in money market funds. We measure the fair value of these investments using quoted prices in active markets for identical assets. The fair value of our money market funds approximates our cost basis in the investments. The increase in money market funds as of December 31, 2017 is primarily related to the premiums paid to a wholly-owned insurance captive.

## Available-for-Sale Securities

Available-for-sale securities are primarily related to the restricted trust funds that were created to settle certain of our final capping, closure, post-closure or environmental remediation obligations, which are discussed further in Note 18. These trust funds are invested in U.S. Treasury securities and equity and bond funds. We measure the fair value of these securities using quoted prices for identical or similar assets in inactive markets. Any changes in fair value of these trusts related to unrealized gains and losses have been appropriately reflected as a component of accumulated other comprehensive income (loss).

## Fixed-Income Securities

We invest a portion of our restricted trust and escrow account balances in fixed-income securities, including U.S. Treasury securities, U.S. agency securities, municipal securities and mortgage- and asset-backed securities. We measure the fair value of these securities using quoted prices for identical or similar assets in inactive markets. The fair value of our fixed-income securities approximates our cost basis in these investments.

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Redeemable Preferred Stock

Redeemable preferred stock is primarily related to a noncontrolling investment in an unconsolidated entity and is included in investments in unconsolidated entities in our Consolidated Balance Sheets. The fair value of our investment has been measured based on third-party investors' recent or pending transactions in these securities, which are considered the best evidence of fair value. When this evidence is not available, we use other valuation techniques as appropriate and available. These valuation methodologies may include transactions in similar instruments, discounted cash flow techniques, third-party appraisals or industry multiples and public comparables. Redeemable preferred stock also includes stock received in conjunction with the 2014 sale of our Puerto Rico operations.

#### Fair Value of Debt

As of December 31, 2017 and 2016, the carrying value of our debt was \$9.5 billion and \$9.3 billion, respectively. The estimated fair value of our debt was approximately \$9.9 billion and \$9.7 billion as of December 31, 2017 and 2016, respectively. The fair value of our fixed-rate debt is estimated by using a discounted cash flow approach and current market rates for similar types of instruments. The carrying value of our variable-rate debt approximates fair value due to the short-term nature of the interest rates. The increase in the fair value of our debt when comparing December 31, 2017 with December 31, 2016 is primarily related to net borrowings of \$172 million during 2017 and fluctuations in current market rates for similar types of instruments.

Although we have determined the estimated fair value amounts using available market information and commonly accepted valuation methodologies, considerable judgment is required in interpreting market data to develop the estimates of fair value. Accordingly, our estimates are not necessarily indicative of the amounts that we, or holders of the instruments, could realize in a current market exchange. The use of different assumptions or estimation methodologies could have a material effect on the estimated fair values. The fair value estimates are based on Level 2 inputs of the fair value hierarchy available as of December 31, 2017 and 2016. These amounts have not been revalued since those dates, and current estimates of fair value could differ significantly from the amounts presented.

#### 17. Acquisitions and Divestitures

# Acquisitions

We continue to pursue the acquisition of businesses that are accretive to our Solid Waste business and enhance and expand our existing service offerings. During the year ended December 31, 2017, we acquired 24 businesses related to our Solid Waste business. Total consideration, net of cash acquired, for all acquisitions was \$205 million, which included \$183 million in cash paid and other consideration of \$22 million, primarily purchase price holdbacks. In 2017, we paid \$3 million of contingent consideration associated with acquisitions completed prior to 2017. In addition, we paid \$14 million of holdbacks, of which \$13 million related to current year acquisitions.

Total consideration for our 2017 acquisitions was primarily allocated to \$127 million of property and equipment, \$46 million of other intangible assets and \$39 million of goodwill. Other intangible assets included \$39 million of customer and supplier relationships and \$7 million of covenants not-to-compete. The goodwill is primarily a result of expected synergies from combining the acquired businesses with our existing operations and is tax deductible.

Contingent consideration obligations are primarily based on achievement by the acquired businesses of certain negotiated goals, which generally include targeted financial metrics. As of December 31, 2017 and 2016, the balance of our estimated contingent consideration obligations was \$7 million and \$37 million, respectively. The decrease in this balance is primarily due to adjustments to write down our estimated obligations to fair value. See Note 11 for further discussion.

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

During the year ended December 31, 2016, we acquired 30 businesses primarily related to our Solid Waste business. Total consideration, net of cash acquired, for all acquisitions was \$604 million, which included \$581 million in cash paid and other consideration of \$23 million, primarily purchase price holdbacks. For businesses acquired in 2016, our estimated maximum obligations for contingent consideration was not material. In 2016, we also paid \$4 million of contingent consideration for acquisitions completed prior to 2016. In addition, we paid \$26 million of holdbacks, of which \$16 million related to 2016 acquisitions.

Total consideration for our 2016 acquisitions was primarily allocated to \$115 million of property and equipment, \$212 million of other intangible assets and \$280 million of goodwill. Other intangible assets included \$185 million of customer and supplier relationships, \$23 million of covenants not-to-compete and \$4 million for a trade name. The goodwill is primarily a result of expected synergies from combining the acquired businesses with our existing operations and is tax deductible

Southern Waste Systems/Sun Recycling ("SWS") — On January 8, 2016, Waste Management Inc. of Florida, an indirect wholly-owned subsidiary of WM, acquired certain operations and business assets of SWS in Southern Florida for total consideration of \$525 million. The acquired business assets include residential, commercial and industrial solid waste collection, processing/recycling and transfer operations, equipment, vehicles, real estate and customer agreements. The acquisition was funded primarily with borrowings under our \$2.25 billion revolving credit facility.

Total consideration for SWS was allocated to \$93 million of property and equipment, \$182 million of other intangible assets and \$250 million of goodwill. The goodwill has been assigned to our Florida Area, in Tier 3, and is tax deductible. The acquisition accounting for this transaction was finalized in 2016.

During the year ended December 31, 2015, we acquired 27 businesses primarily related to our Solid Waste business. Total consideration, net of cash acquired, for all acquisitions was \$646 million, which included \$537 million in cash paid, purchase price holdbacks of \$13 million and a liability for contingent consideration with a preliminary estimated fair value of \$96 million. Our estimated maximum obligations for the contingent cash payments were \$126 million at the dates of acquisition. As of December 31, 2015, we had paid \$13 million of these holdbacks and contingent consideration. In 2015, we also paid \$4 million of contingent consideration associated with acquisitions completed prior to 2015.

Total consideration for our 2015 acquisitions was primarily allocated to \$243 million of property and equipment, \$145 million of other intangible assets and \$325 million of goodwill. Other intangible assets included \$131 million of customer and supplier relationships, \$8 million of covenants not-to-compete and \$6 million of trade name. The goodwill is primarily a result of expected synergies from combining the acquired businesses with our existing operations and \$166 million is tax deductible and \$159 million is not tax deductible.

Deffenbaugh Disposal, Inc. ("Deffenbaugh") — On March 26, 2015, we acquired Deffenbaugh, one of the largest privately owned collection and disposal firms in the Midwest, for total consideration, net of cash acquired, of \$400 million. Deffenbaugh's assets include collection operations, transfer stations, recycling facilities and landfills.

Total consideration for Deffenbaugh was allocated to \$207 million of property and equipment, \$159 million in goodwill, \$100 million in other intangible assets, \$50 million in other assets, including \$15 million cash acquired, and \$101 million in total liabilities. Goodwill has been assigned to our Areas, primarily Tier 3 and to a lesser extent Tier 1, and is not tax deductible. The acquisition accounting for this transaction was finalized in 2016.

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The following table presents the fair value assigned to other intangible assets for the Deffenbaugh and SWS acquisitions, respectively, (amounts in millions, except for amortization periods):

		]	Deffenbaugh			SWS	
	Amount		Weighted Average Amortization Periods (in Years)	A	mount	Weighted Average Amortization Periods (in Years)	
Customer and supplier relationships	\$	94	15.0	\$	160	10.0	
Covenants not-to-compete		_	_		18	5.0	
Trade name		6	15.0		4	10.0	
Total other intangible assets subject to amortization	\$	100	15.0	\$	182	9.5	

The following pro forma consolidated results of operations for the years ended December 31 have been prepared as if the acquisitions of Deffenbaugh and SWS occurred as of January 1, 2015 (in millions, except per share amounts):

	2016	2015
Operating revenues	\$ 13,611	\$ 13,137
Net income attributable to Waste Management, Inc.	1,182	751
Basic earnings per common share	2.67	1.66
Diluted earnings per common share	2.65	1.65

#### Divestitures

In 2017, 2016 and 2015, the aggregate sales price for divestitures of operations was \$62 million, \$2 million and \$79 million and we recognized net gains of \$38 million, net losses of \$9 million and net gains of \$7 million, respectively. These divestitures were made as part of our continuous focus on improving or divesting certain non-strategic or underperforming operations. The remaining amounts reported in the Consolidated Statements of Cash Flows generally relate to the sale of fixed assets.

#### 18. Variable Interest Entities

Following is a description of our financial interests in unconsolidated and consolidated variable interest entities that we consider significant:

#### Low-Income Housing Properties and Refined Coal Facility Investments

We have investments in entities established to manage low-income housing properties and a refined coal facility. We support the operations of these entities in exchange for a pro-rata share of the tax credits they generate. We do not consolidate these entities as we have determined we are not the primary beneficiary of these entities as we do not have the power to individually direct the activities of these entities. Accordingly, we account for these investments under the equity method of accounting. Our aggregate investment balance in these two entities was \$59 million and \$84 million as of December 31, 2017 and 2016, respectively. The debt balance related to our investment in low-income housing properties was \$34 million and \$57 million as of December 31, 2017 and 2016, respectively. Additional information related to these investments is discussed in Note 8.

# Trust Funds for Final Capping, Closure, Post-Closure or Environmental Remediation Obligations

We have significant financial interests in trust funds that were created to settle certain of our final capping, closure, postclosure or environmental remediation obligations. These trust funds are established such that we are either the sole

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

beneficiary of these restricted balances or we share benefit with the host community in which we operate. We have determined that these trust funds are variable interest entities; however, we are not the primary beneficiary of certain of these entities, as described further below. As the party with primary responsibility to fund the related final capping, closure, post-closure or environmental remediation activities for these trust funds, we are exposed to risk of loss if there are declines in the fair value of the assets of the trust. We currently expect the trust funds to continue to meet the statutory requirements for which they were established.

Unconsolidated Variable Interest Entities — Trust funds that are established for both the benefit of the Company and the host community in which we operate are not consolidated because we are not the primary beneficiary of these entities as we either do not have the (i) power to direct the significant activities of the trusts or (ii) power over the trusts' significant activities is shared. Our interests in these trusts are accounted for as investments in unconsolidated entities and receivables. These amounts are recorded in other receivables, investments in unconsolidated entities and long-term other assets in our Consolidated Balance Sheets, as appropriate. We also reflect our share of the unrealized gains and losses on available-for-sale securities held by these trusts as a component of our accumulated other comprehensive income (loss). Our investments and receivables related to these trusts had an aggregate carrying value of \$99 million and \$93 million as of December 31, 2017 and 2016, respectively.

Consolidated Variable Interest Entities — Trust funds for which we are the sole beneficiary are consolidated because we are the primary beneficiary. These trust funds are recorded in restricted trust and escrow accounts in our Consolidated Balance Sheets. Unrealized gains and losses on available-for-sale securities held by these trusts are recorded as a component of accumulated other comprehensive income (loss). These trusts had a fair value of \$101 million and \$95 million as of December 31, 2017 and 2016, respectively.

# 19. Segment and Related Information

We evaluate, oversee and manage the financial performance of our Solid Waste business subsidiaries through our 17 Areas. The 17 Areas constitute operating segments and we have evaluated the aggregation criteria and concluded that, based on the similarities between our Areas, including the fact that our Solid Waste business is homogenous across geographies with the same services offered across the Areas, aggregation of our Areas is appropriate for purposes of presenting our reportable segments. Accordingly, we have aggregated our 17 Areas into three tiers that we believe have similar economic characteristics and future prospects based in large part on a review of the Areas' income from operations margins. The economic variations experienced by our Areas are attributable to a variety of factors, including regulatory environment of the Area; economic environment of the Area, including level of commercial and industrial activity; population density; service offering mix and disposal logistics, with no one factor being singularly determinative of an Area's current or future economic performance.

Consistent with prior years, we have analyzed the Areas' income from operations margins for purposes of segment reporting and have realigned our Solid Waste tiers to reflect recent changes in their relative economic characteristics and prospects. These changes are the results of various factors including acquisitions, divestments, business mix and the economic climate of various geographies. Reclassifications have been made to our prior period consolidated financial information in order to conform to the current year presentation.

Tier 1 is comprised of our operations across the Southern U.S., with the exception of Southern California and the Florida peninsula, and also includes the New England states, the tri-state area of Michigan, Indiana and Ohio and Western Canada. Tier 2 now includes Southern California, Eastern Canada, Wisconsin and Minnesota. Tier 3 now encompasses all the remaining operations including the Pacific Northwest and Northern California, the Mid-Atlantic region of the U.S., the Florida peninsula, Illinois and Missouri.

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The operating segments not evaluated and overseen through the 17 Areas are presented herein as "Other" as these operating segments do not meet the criteria to be aggregated with other operating segments and do not meet the quantitative criteria to be separately reported.

Summarized financial information concerning our reportable segments as of December 31 and for the years then ended is shown in the following table (in millions):

	Gross	T 4		Net	]	Income	ъ			Cit-1	Total
	Operating		ercompany Operating	Operating	Oı	from perations	Dej	oreciation and		Capital penditures	Assets
	Revenues	Re	evenues(c)	Revenues		(d)(e)	Am	ortization		(f)	(g)(h)
2017											
Solid Waste:											
Tier 1	\$ 5,576	\$	(1,002)	\$ 4,574	\$	1,538	\$	451	\$	603	\$ 6,528
Tier 2	2,559		(443)	2,116		552		203		185	3,749
Tier 3	6,697		(1,220)	5,477		1,199		574		595	8,727
Solid Waste	14,832		(2,665)	12,167		3,289		1,228		1,383	19,004
Other (a)	2,538		(220)	2,318		(68)		103		93	1,785
	17,370		(2,885)	14,485		3,221		1,331		1,476	20,789
Corporate and Other (b)	_		_	_		(585)		45		92	1,327
Total	\$ 17,370	\$	(2,885)	\$ 14,485	\$	2,636	\$	1,376	\$	1,568	\$ 22,116
2016											
Solid Waste:											
Tier 1	\$ 5,241	\$	(911)	\$ 4,330	\$	1,430	\$	424	\$	452	\$ 6,188
Tier 2	2,400	Ψ	(404)	1,996	Ψ	522	Ψ	190	Ψ	157	3,562
Tier 3	6,327		(1,137)	5,190		994		530		589	8,497
Solid Waste	13,968		(2,452)	11,516	_	2,946		1,144	_	1,198	18,247
Other (a)	2,278		(2,432) $(185)$	2,093		(100)		101		1,198	1,489
Other (a)	16,246		(2,637)	13,609	_	2,846		1,245	_	1,302	19,736
Corporate and Other (b)	10,240		(2,037)	13,009		(550)		56		45	1,401
• ` ` /	\$ 16,246	\$	(2,637)	\$ 13,609	\$	2,296	\$	1,301	\$	1,347	\$ 21,137
Total	\$ 10,240	Ф	(2,037)	\$ 13,009	Ф	2,290	Ф	1,301	Ф	1,347	\$ 21,137
2015											
Solid Waste:											
Tier 1	\$ 5,083	\$	(856)	\$ 4,227	\$	1,290	\$	428	\$	382	\$ 6,098
Tier 2	2,322		(389)	1,933		446		190		147	3,497
Tier 3	5,880		(1,037)	4,843		991		469		516	7,827
Solid Waste	13,285		(2,282)	11,003		2,727		1,087		1,045	17,422
Other (a)	2,065		(107)	1,958		(160)		94		128	1,701
	15,350		(2,389)	12,961		2,567		1,181		1,173	19,123
Corporate and Other (b)	_		_	_		(522)		64		56	1,783
Total	\$ 15,350	\$	(2,389)	\$ 12,961	\$	2,045	\$	1,245	\$	1,229	\$ 20,906

<sup>(</sup>a) Our "Other" net operating revenues and "Other" income from operations include (i) our Strategic Business Solutions ("WMSBS") organization; (ii) those elements of our landfill gas-to-energy operations and third-party subcontract and administration revenues managed by our EES and WM Renewable Energy organizations that are not included in the operations of our reportable segments; (iii) our recycling brokerage services and (iv) our expanded service offerings and solutions, such as portable self-storage and long distance moving services, fluorescent lamp recycling and interests

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

we hold in oil and gas producing properties. In addition, our "Other" segment reflects the results of non-operating entities that provide financial assurance and self-insurance support for our Solid Waste business, net of intercompany activity.

- (b) Corporate operating results reflect certain costs incurred for various support services that are not allocated to our reportable segments. These support services include, among other things, treasury, legal, information technology, tax, insurance, centralized service center processes, other administrative functions and the maintenance of our closed landfills. Income from operations for "Corporate and other" also includes costs associated with our long-term incentive program and any administrative expenses or revisions to our estimated obligations associated with divested operations.
- (c) Intercompany operating revenues reflect each segment's total intercompany sales, including intercompany sales within a segment and between segments. Transactions within and between segments are generally made on a basis intended to reflect the market value of the service.
- (d) For those items included in the determination of income from operations, the accounting policies of the segments are the same as those described in Note 3.
- (e) The income from operations provided by our Solid Waste business is generally indicative of the margins provided by our collection, landfill, transfer and recycling lines of business. From time to time, the operating results of our reportable segments are significantly affected by certain transactions or events that management believes are not indicative or representative of our results. Refer to Note 11 for explanations of certain transactions and events affecting our operating results.
- (f) Includes non-cash items. Capital expenditures are reported in our reportable segments at the time they are recorded within the segments' property and equipment balances and, therefore, may include amounts that have been accrued but not yet paid.
- (g) The reconciliation of total assets reported above to total assets in the Consolidated Balance Sheets as of December 31 is as follows (in millions):

	2017	2016	2015
Total assets, as reported above	\$ 22,116	\$ 21,137	\$ 20,906
Elimination of intercompany investments and advances	(287)	(278)	(539)
Total assets, per Consolidated Balance Sheet	\$ 21,829	\$ 20,859	\$ 20,367

(h) Goodwill is included within each segment's total assets. For segment reporting purposes, our material recovery facilities are included as a component of their respective Areas and our recycling brokerage services is included as part of our "Other" operations. The goodwill associated with our acquisition of SWS in 2016 has been assigned to our Florida Area, in Tier 3. Other adjustments in 2016 relate to the finalization of purchase accounting for acquisitions executed in 2015. These adjustments primarily resulted in a decrease in the related contingent consideration liability. See Note 17 for additional information on our acquisitions. The following table presents changes in goodwill during 2016 and 2017 by reportable segment (in millions):

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

		Solid Waste			
	Tier 1	Tier 2	Tier 3	Other	Total
Balance, December 31, 2015	\$ 2,190	\$ 1,176	\$ 2,408	\$ 210	\$ 5,984
Acquired goodwill	11	12	254	3	280
Divested goodwill	_	_	(1)	_	(1)
Impairments	_	_	_	(12)	(12)
Foreign currency translation	2	10	_	<u> </u>	12
Other adjustments		(2)		(46)	(48)
Balance, December 31, 2016	\$ 2,203	\$ 1,196	\$ 2,661	\$ 155	\$ 6,215
Acquired goodwill	12	20	7	_	39
Divested goodwill	_	(1)	_	_	(1)
Impairments	_	_	_	(34)	(34)
Foreign currency translation	6	22	_	<u> </u>	28
Balance, December 31, 2017	\$ 2,221	\$ 1,237	\$ 2,668	\$ 121	\$ 6,247

The mix of operating revenues from our major lines of business for the years ended December 31 are as follows (in millions):

	2017	2016	2015
Commercial	\$ 3,714	\$ 3,480	\$ 3,332
Residential	2,528	2,487	2,499
Industrial	2,583	2,412	2,252
Other	439	423	356
Total collection	9,264	8,802	8,439
Landfill	3,370	3,110	2,919
Transfer	1,591	1,512	1,377
Recycling	1,432	1,221	1,163
Other (a)	1,713	1,601	1,452
Intercompany (b)	(2,885	(2,637)	(2,389)
Total	\$ 14,485	\$ 13,609	\$ 12,961

- (a) The "Other" line of business includes (i) our WMSBS organization; (ii) our landfill gas-to-energy operations; (iii) certain services within our EES organization, including our construction and remediation services and our services associated with the disposal of fly ash and (iv) our expanded service offerings and solutions, such as portable self-storage and long distance moving services, and interests we hold in oil and gas producing properties. In addition, our "Other" line of business reflects the results of non-operating entities that provide financial assurance and self-insurance support, net of intercompany activity.
- (b) Intercompany revenues between lines of business are eliminated in the Consolidated Financial Statements included within this report.

Net operating revenues relating to operations in the U.S. and Canada for the years ended December 31 are as follows (in millions):

	2017	2016	2015
U.S.	\$ 13,768	\$ 12,915	\$ 12,196
Canada	717	694	765
Total	\$ 14,485	\$ 13,609	\$ 12,961

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Property and equipment, net of accumulated depreciation and amortization, relating to operations in the U.S. and Canada for the years ended December 31 are as follows (in millions):

	2017	2016	2015
U.S.	\$ 10,591	\$ 10,040	\$ 9,778
Canada	968	910	887
Total	\$ 11,559	\$ 10,950	\$ 10,665

# 20. Quarterly Financial Data (Unaudited)

The following table summarizes the unaudited quarterly results of operations for 2017 and 2016 (in millions, except per share amounts):

First Quarter							Fourth Quarter	
				,				
3,440	\$	3,677	\$	3,716	\$	3,652		
558		673		701		704		
297		361		388		903		
298		362		386		903		
0.68		0.82		0.88		2.08		
0.67		0.81		0.87		2.06		
3,176	\$	3,425	\$	3,548	\$	3,460		
508		611		560		617		
256		286		304		334		
258		287		302		335		
0.58		0.65		0.68		0.76		
0.58		0.64		0.68		0.75		
	3,440 558 297 298 0.68 0.67 3,176 508 256 258 0.58	3,440 \$ 558 297 298 0.68 0.67  3,176 \$ 508 256 258 0.58	uarter         Quarter           3,440         \$ 3,677           558         673           297         361           298         362           0.68         0.82           0.67         0.81           3,176         \$ 3,425           508         611           256         286           258         287           0.58         0.65	uarter         Quarter         Quarter           3,440         \$ 3,677         \$           558         673         297         361           298         362         0.68         0.82           0.67         0.81         0.81           3,176         \$ 3,425         \$           508         611         256         286           258         287         0.58         0.65	uarter         Quarter         Quarter           3,440         \$ 3,677         \$ 3,716           558         673         701           297         361         388           298         362         386           0.68         0.82         0.88           0.67         0.81         0.87           3,176         \$ 3,425         \$ 3,548           508         611         560           256         286         304           258         287         302           0.58         0.65         0.68	uarter         Quarter         Quarter <th< td=""></th<>		

<sup>(</sup>a) As of January 1, 2017, we adopted ASU 2016-09 prospectively and no longer include excess tax benefits as assumed proceeds in the calculation of diluted weighted shares outstanding. See Note 2 for further discussion.

Basic and diluted earnings per common share for each of the quarters presented above is based on the respective weighted average number of common and dilutive potential common shares outstanding for each quarter and the sum of the quarters may not necessarily be equal to the full year basic and diluted earnings per common share amounts.

Our operating revenues tend to be somewhat higher in summer months, primarily due to the higher construction and demolition waste volumes. The volumes of industrial and residential waste in certain regions where we operate also tend to increase during the summer months. Our second and third quarter revenues and results of operations typically reflect these seasonal trends. Additionally, from time to time, our operating results are significantly affected by certain transactions or events that management believes are not indicative or representative of our results. The following items significantly impacted our operating results during the periods indicated:

#### First Quarter 2017

A reduction in our income tax expense of \$32 million for excess tax benefits related to the vesting or exercise of
equity-based compensation awards and a \$25 million pre-tax charge to write down an equity method investment

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

in a waste diversion technology company to its fair value. These items had a favorable impact of \$0.01 on our diluted earnings per share.

# Third Quarter 2017

• The recognition of pre-tax charges including (i) an \$11 million charge for the withdrawal from an underfunded Multiemployer Pension Plan and (ii) a \$9 million charge to adjust our subsidiary's estimated potential share of an environmental remediation liability and related costs for a closed site in Harris County, Texas. These charges had a negative impact of \$0.03 on our diluted earnings per share.

# Fourth Quarter 2017

- An income tax benefit of \$529 million related to enactment of the Act, consisting of a net tax benefit of \$595 million related to the re-measurement of our deferred income tax assets and liabilities, partially offset by income tax expense of \$66 million for a one-time, mandatory transition tax on the deemed repatriation of previously tax-deferred and unremitted foreign earnings. This net tax benefit had a favorable impact of \$1.21 on our diluted earnings per share.
- The recognition of net pre-tax gains of \$26 million primarily related to (i) gains of \$31 million from the sale of certain oil and gas producing properties and (ii) a gain of \$30 million related to the reduction in post-closing, performance-based contingent consideration obligations associated with an acquired business in our EES organization; partially offset by goodwill impairment charges of \$34 million, primarily related to our EES organization. These net gains had a favorable impact of \$0.03 on our diluted earnings per share.
- The recognition of pre-tax charges of \$11 million related to the impairment of investments in waste diversion technology companies. These impairments were not deductible for income taxes and had a negative impact of \$0.02 on our diluted earnings per share.
- The recognition of a pre-tax loss of \$6 million associated with the early extinguishment of \$590 million of 6.1% senior notes ahead of their scheduled maturity date, which had a negative impact of \$0.01 on our diluted earnings per share.

#### Second Quarter 2016

• The recognition of pre-tax charges of \$45 million, primarily related to the impairment of minority-owned investments in waste diversion technology companies. These impairments were substantially not deductible for income taxes and had a negative impact of \$0.10 on our diluted earnings per share.

# Third Quarter 2016

• The recognition of pre-tax charges of \$106 million consisting primarily of (i) a \$43 million impairment due to a loss of expected volumes for a landfill; (ii) a \$42 million charge to adjust our subsidiary's estimated environmental remediation liability and related costs for a closed site in Harris County, Texas; (iii) a \$10 million goodwill impairment charge related to our LampTracker® reporting unit and (iv) an \$8 million loss on the sale of a majority-owned organics company. These charges had a negative impact of \$0.16 on our diluted earnings per share.

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

# 21. Condensed Consolidating Financial Statements

WM Holdings has fully and unconditionally guaranteed all of WM's senior indebtedness. WM has fully and unconditionally guaranteed all of WM Holdings' senior indebtedness. None of WM's other subsidiaries have guaranteed any of WM's or WM Holdings' debt. As a result of these guarantee arrangements, we are required to present the following condensed consolidating financial information (in millions):

# CONDENSED CONSOLIDATING BALANCE SHEETS

# December 31, 2017

	WM	WM Holdings	Non- Guarantor Subsidiaries	Eliminations	Consolidated
	ASSETS				
Current assets:					
Cash and cash equivalents	\$ —	\$ —	\$ 22	\$ —	\$ 22
Other current assets	5	5	2,592		2,602
	5	5	2,614	_	2,624
Property and equipment, net	_	_	11,559	_	11,559
Investments in affiliates	22,393	22,893	_	(45,286)	_
Advances to affiliates	_	_	15,349	(15,349)	_
Other assets	9	31	7,606	_	7,646
Total assets	\$ 22,407	\$ 22,929	\$ 37,128	\$ (60,635)	\$ 21,829
LIABILI	TIES AND E	QUITY			
Current liabilities:					
Current portion of long-term debt	\$ 537	\$ —	\$ 202	\$ —	\$ 739
Accounts payable and other current liabilities	55	9	2,459	_	2,523
	592	9	2,661	_	3,262
Long-term debt, less current portion	6,457	304	1,991	_	8,752
Due to affiliates	15,404	224	6,073	(21,701)	_
Other liabilities	8		3,765		3,773
Total liabilities	22,461	537	14,490	(21,701)	15,787
Equity:	<u> </u>				
Stockholders' equity	6,019	22,392	22,894	(45,286)	6,019
Advances to affiliates	(6,073)	_	(279)	6,352	
Noncontrolling interests		_	23		23
	(54)	22,392	22,638	(38,934)	6,042
Total liabilities and equity	\$ 22,407	\$ 22,929	\$ 37,128	\$ (60,635)	\$ 21,829

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

# CONDENSED CONSOLIDATING BALANCE SHEETS (Continued)

# December 31, 2016

	WM	WM Holdings	Non- Guarantor Subsidiaries	Eliminations	Consolidated
	ASSETS				
Current assets:					
Cash and cash equivalents	\$ —	\$ —	\$ 32	\$ —	\$ 32
Other current assets	5	5	2,334		2,344
	5	5	2,366	_	2,376
Property and equipment, net	_	_	10,950	_	10,950
Investments in affiliates	19,924	20,331	_	(40,255)	_
Advances to affiliates	_		13,000	(13,000)	
Other assets	14	30	7,489		7,533
Total assets	\$ 19,943	\$ 20,366	\$ 33,805	\$ (53,255)	\$ 20,859
LIABILI	TIES AND E	QUITY			
Current liabilities:					
Current portion of long-term debt	\$ 269	\$ —	\$ 148	\$ —	\$ 417
Accounts payable and other current liabilities	81	9	2,287		2,377
	350	9	2,435	_	2,794
Long-term debt, less current portion	6,229	304	2,360	_	8,893
Due to affiliates	13,350	128	5,299	(18,777)	_
Other liabilities	16		3,836		3,852
Total liabilities	19,945	441	13,930	(18,777)	15,539
Equity:					
Stockholders' equity	5,297	19,925	20,330	(40,255)	5,297
Advances to affiliates	(5,299)	_	(478)	5,777	
Noncontrolling interests	_	_	23	_	23
	(2)	19,925	19,875	(34,478)	5,320
Total liabilities and equity	\$ 19,943	\$ 20,366	\$ 33,805	\$ (53,255)	\$ 20,859
1 7					

# ${\bf NOTES\ TO\ CONSOLIDATED\ FINANCIAL\ STATEMENTS} \ -- (Continued)$

# CONDENSED CONSOLIDATING STATEMENTS OF OPERATIONS

	WM	WM Holdings	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Years Ended December 31:					
2017	0		15040	0 (555)	0 14405
Operating revenues (a)	\$ —	\$ —	\$ 15,040	\$ (555)	\$ 14,485
Costs and expenses (a)	555		11,849	(555)	11,849
Income from operations	(555)		3,191		2,636
Other income (expense):	(200)	(20)	(44)		(2(2)
Interest expense, net	(299)	(20)	(44)	_	(363)
Loss on early extinguishment of debt Equity in earnings of subsidiaries, net of tax	(6) 2,469	2,482		(4,951)	(6)
Other, net	2,469	(1)	(77)	(4,931)	(76)
Other, net	2,166	2,461	(121)	(4,951)	(445)
Income before income taxes	1,611	2,461	3,070	(4,951)	2,191
Income tax expense (benefit)	(338)	(8)	588	(4,931)	2,191
•	1,949	2,469	2,482	(4.051)	1,949
Consolidated net income	1,949	2,469	2,482	(4,951)	1,949
Less: Net income (loss) attributable to noncontrolling interests	\$ 1,949	\$ 2,469	\$ 2,482	\$ (4,951)	\$ 1,949
Net income attributable to Waste Management, Inc.	\$ 1,949	\$ 2,409	\$ 2,462	\$ (4,931)	5 1,949
2016					
Operating revenues	s —	s —	\$ 13,609	s —	\$ 13,609
Costs and expenses	_	_	11,313	_	11,313
Income from operations			2,296		2,296
Other income (expense):					
Interest expense, net	(303)	(20)	(53)	_	(376)
Loss on early extinguishment of debt	(1)		(3)	_	(4)
Equity in earnings of subsidiaries, net of tax	1,367	1,381		(2,748)	
Other, net	_	_	(94)		(94)
	1,063	1,361	(150)	(2,748)	(474)
Income before income taxes	1,063	1,361	2,146	(2,748)	1,822
Income tax expense (benefit)	(119)	(8)	769	_	642
Consolidated net income	1,182	1,369	1,377	(2,748)	1,180
Less: Net income (loss) attributable to noncontrolling interests	_	_	(2)	_	(2)
Net income attributable to Waste Management, Inc.	\$1,182	\$ 1,369	\$ 1,379	\$ (2,748)	\$ 1,182
2015	\$ —	s —	\$ 12.961	s —	\$ 12,961
Operating revenues	» —	•	, ,, ,	<b>5</b> —	
Costs and expenses		(1)	2,044		10,916
Income from operations		1	2,044		2,045
Other income (expense):	(200)	(22)	((5)		(205)
Interest expense, net Loss on early extinguishment of debt	(298) (500)	(22)	(65)	_	(385)
Equity in earnings of subsidiaries, net of tax	1,245	(52) 1,289	(3)	(2,534)	(555)
Other, net	1,243	1,289	(45)	(2,334)	(45)
Other, net	447	1,215	(113)	(2,534)	(985)
Income before income taxes	447	1,215	1,931	(2,534)	1,060
Income tax expense (benefit)	(306)	(29)	643	(2,334)	308
Consolidated net income			1,288	(2,534)	752
	753	1,245	1,288	(2,334)	(1)
Less: Net income (loss) attributable to noncontrolling interests  Net income attributable to Waste Management, Inc.	\$ 753	\$ 1,245	\$ 1,289	\$ (2,534)	\$ 753
The meeting authorition waste Management, Inc.	ψ 100	¥ 1,410	- 1,207	- (2,55 T)	- 155

<sup>(</sup>a) For 2017, costs and expenses for WM and operating revenues for Non-Guarantor Subsidiaries include \$555 million related to insurance premiums for a wholly-owned insurance captive, which are eliminated in consolidation.

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

# CONDENSED CONSOLIDATING STATEMENTS OF COMPREHENSIVE INCOME

	WM	Non- WM Guarantor Holdings Subsidiaries			Eliminations		Consolidated	
Years Ended December 31:	77.171	Holdings	<u> </u>	DSIGIATICS	1511	mmations	201	130Hua teu
2017								
Comprehensive income	\$ 1,955	\$ 2,469	\$	2,564	\$	(4,951)	\$	2,037
Less: Comprehensive income (loss) attributable to noncontrolling interests	_	_		_		_		_
Comprehensive income attributable to Waste Management,								
Inc.	\$ 1,955	\$ 2,469	\$	2,564	\$	(4,951)	\$	2,037
2016								
Comprehensive income	\$ 1,189	\$ 1,369	\$	1,417	\$	(2,748)	\$	1,227
Less: Comprehensive income (loss) attributable to noncontrolling interests	_	_		(2)		_		(2)
Comprehensive income attributable to Waste Management,								
Inc.	\$ 1,189	\$ 1,369	\$	1,419	\$	(2,748)	\$	1,229
2015								
Comprehensive income	\$ 762	\$ 1,245	\$	1,129	\$	(2,534)	\$	602
Less: Comprehensive income (loss) attributable to noncontrolling interests	_	_		(1)		_		(1)
Comprehensive income attributable to Waste Management, Inc.	\$ 762	\$ 1,245	\$	1,130	\$	(2,534)	\$	603
			_					

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

# CONDENSED CONSOLIDATING STATEMENTS OF CASH FLOWS

	WM(a)		Hol	WM Holdings(a)		Non- Guarantor Subsidiaries(a)		Eliminations		Consolidated	
Years Ended December 31:		(1)		<u> </u>							
2017											
Cash flows provided by (used in):											
Operating activities	\$	_	\$	_	\$	3,180	\$	_	\$	3,180	
Investing activities		_		_		(1,379)		_		(1,379)	
Financing activities		_		_		(1,811)		_		(1,811)	
Effect of exchange rate changes on cash and cash											
equivalents		_		_		_		_		_	
Intercompany activity						_					
Decrease in cash and cash equivalents		_				(10)				(10)	
Cash and cash equivalents at beginning of period						32				32	
Cash and cash equivalents at end of period	\$		\$		\$	22	\$		\$	22	
2016											
Cash flows provided by (used in):											
Operating activities	\$	_	\$	_	\$	3,006	\$	_	\$	3,006	
Investing activities		_		_		(1,932)		_		(1,932)	
Financing activities		_		_		(1,081)		_		(1,081)	
Effect of exchange rate changes on cash and cash											
equivalents		_		_		_		_		_	
Intercompany activity										_	
Decrease in cash and cash equivalents		_		_		(7)		_		(7)	
Cash and cash equivalents at beginning of period						39				39	
Cash and cash equivalents at end of period	\$		\$		\$	32	\$		\$	32	
2015											
Cash flows provided by (used in):											
Operating activities	\$	_	\$	_	\$	2,528	\$	_	\$	2,528	
Investing activities		_		_		(1,608)		_		(1,608)	
Financing activities		_		_		(2,185)		_		(2,185)	
Effect of exchange rate changes on cash and cash equivalents		_		_		(3)		_		(3)	
Intercompany activity	-	(1,235)		_		1.235		_		(3)	
Decrease in cash and cash equivalents	_	(1,235)			_	(33)				(1,268)	
Cash and cash equivalents at beginning of period		1,235				72				1,307	
Cash and cash equivalents at obeginning of period	\$	1,233	\$		\$	39	\$		\$	39	
Cash and Cash equivalents at end of period	φ		φ		Φ	39	φ		φ	39	

<sup>(</sup>a) Cash receipts and payments of WM and WM Holdings are transacted by Non-Guarantor Subsidiaries.

# 22. New Accounting Standards Pending Adoption (Unaudited)

Income Taxes — In October 2016, the FASB issued ASU 2016-16 associated with the timing of recognition of income taxes for intra-entity transfers of assets other than inventory. The amended guidance requires the recognition of income taxes when the transfer of the asset occurs, which replaces current GAAP that defers the recognition of income taxes until

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

the transferred asset is sold to a third party or otherwise recovered through use. The amended guidance is effective for the Company on January 1, 2018 and will not have a material impact on our consolidated financial statements.

Statement of Cash Flows — In August 2016, the FASB issued ASU 2016-15 associated with the classification of certain cash receipts and cash payments in the statement of cash flows. In November 2016, the FASB issued ASU 2016-18 associated with the presentation of restricted cash and cash equivalents in the statement of cash flows. The objective of both amendments was to reduce existing diversity in practice. The amended guidance is effective for the Company on January 1, 2018 and, upon adoption, the principal change for the Company will be in the presentation of restricted cash and cash equivalents in the statement of cash flows, which will include substantially all of the restricted trust and escrow accounts reflected on our Consolidated Balance Sheets.

Financial Instrument Credit Losses — In June 2016, the FASB issued ASU 2016-13 associated with the measurement of credit losses on financial instruments. The amended guidance replaces the current incurred loss impairment methodology of recognizing credit losses when a loss is probable, with a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information to assess credit loss estimates. The amended guidance is effective for the Company on January 1, 2020, with early adoption permitted beginning January 1, 2019. We are assessing the provisions of this amended guidance and evaluating the impact on our consolidated financial statements.

Leases — In February 2016, the FASB issued ASU 2016-02 associated with lease accounting. The amended guidance requires the recognition of lease assets and lease liabilities on the balance sheet for those leases with terms in excess of 12 months and currently classified as operating leases. The disclosure of key information about leasing arrangements will also be required. The amended guidance is effective for the Company on January 1, 2019. We are assessing the provisions of this amended guidance and we have (i) formed an implementation work team; (ii) performed training for the various organizations that will be most affected by the new standard and (iii) acquired a software solution to manage and account for leases under the new standard. We are evaluating the impact of this amended guidance on our consolidated financial statements.

Financial Instruments — In January 2016, the FASB issued ASU 2016-01 associated with the recognition and measurement of financial assets and liabilities. The amended guidance will require certain equity investments that are not consolidated and not accounted for under the equity method to be measured at fair value with changes in fair value recognized in net income rather than as a component of accumulated other comprehensive income (loss). The amended guidance is effective for the Company on January 1, 2018 and will not have a material impact on our consolidated financial statements.

Revenue Recognition — In May 2014, the FASB issued ASU 2014-09 associated with revenue recognition. The amended guidance requires companies to recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. Additionally, the amendments will require enhanced qualitative and quantitative disclosures regarding customer contracts. The amended guidance associated with revenue recognition is effective for the Company on January 1, 2018. The amended guidance may be applied retrospectively for all periods presented ("full retrospective method") or retrospectively with the cumulative effect of initially applying the amended guidance recognized at the date of initial adoption ("modified retrospective method"). The Company is currently planning to adopt the amended guidance using the modified retrospective method as of January 1, 2018.

To assess the impact of the standard, we utilized internal resources to lead the implementation effort and supplemented them with external resources. Our internal resources read the amended guidance, attended trainings and consulted with other accounting professionals to assist with interpretation of the amended guidance. Surveys were sent to and returned by all operating segments to assess the potential impact of the amended guidance and to tailor specific procedures to evaluate

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

the potential impact. Based on the results of these surveys, we judgmentally selected a sample of contracts based on size and specifically identified contract traits that could be accounted for differently under the amended guidance. We also selected a representative sample of contracts to corroborate the survey results.

Based on our work to date, we believe we have identified all material contract types and costs that may be impacted by this amended guidance. We currently do not expect the amended guidance to have a material impact on operating revenues. However, upon adoption of the amended guidance, certain sales incentives will be capitalized and amortized to selling, general and administrative expenses over the expected life of the customer relationship. Under current guidance, sales incentives are expensed as earned to selling, general and administrative expenses. Additionally, the amended guidance resulted in a change in who we identify as a customer for certain arrangements. We anticipate payments to these customers will be a reduction in operating revenues. Under current guidance, these payments are recorded as operating expenses.

#### Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

None.

#### Item 9A. Controls and Procedures.

#### **Effectiveness of Controls and Procedures**

Our management, with the participation of our principal executive and financial officers, has evaluated the effectiveness of our disclosure controls and procedures in ensuring that the information required to be disclosed in reports that we file or submit under the Securities Exchange Act of 1934, as amended, is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, including ensuring that such information is accumulated and communicated to management (including the principal executive and financial officers) as appropriate to allow timely decisions regarding required disclosure. Based on such evaluation, our principal executive and financial officers have concluded that such disclosure controls and procedures were effective as of December 31, 2017 (the end of the period covered by this Annual Report on Form 10-K).

# Management's Report on Internal Control Over Financial Reporting

Management of the Company, including the principal executive and financial officers, is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) of the Securities Exchange Act of 1934, as amended. Our internal controls are designed to provide reasonable assurance as to the reliability of our financial reporting and the preparation of the consolidated financial statements for external purposes in accordance with accounting principles generally accepted in the United States and includes those policies and procedures that:

- i. pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of the Company;
- ii. provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and
- iii. provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company's assets that could have a material effect on the financial statements.

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

Management of the Company assessed the effectiveness of our internal control over financial reporting as of December 31, 2017 based on the Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework). Based on this assessment, management has concluded that our internal control over financial reporting was effective as of December 31, 2017.

The effectiveness of our internal control over financial reporting has been audited by Ernst & Young LLP, the independent registered public accounting firm that audited our consolidated financial statements, as stated in their report, which is included within this report.

# **Changes in Internal Control over Financial Reporting**

Management, together with our CEO and CFO, evaluated the changes in our internal control over financial reporting during the quarter ended December 31, 2017. We determined that there were no changes in our internal control over financial reporting during the quarter ended December 31, 2017 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

# Item 9B. Other Information.

None.

#### PART III

# Item 10. Directors, Executive Officers and Corporate Governance.

The information required by this Item is incorporated by reference to the sections entitled "Board of Directors," "Section 16(a) Beneficial Ownership Reporting Compliance," and "Executive Officers," in the Company's definitive Proxy Statement for its 2018 Annual Meeting of Stockholders (the "Proxy Statement"), to be held May 14, 2018. The Proxy Statement will be filed with the SEC within 120 days of the end of our fiscal year.

We have adopted a code of ethics that applies to our CEO, CFO and Chief Accounting Officer, as well as other officers, directors and employees of the Company. The code of ethics, entitled "Code of Conduct," is posted on our website at www.wm.com under the section "Corporate Governance" within the "Investor Relations" tab.

#### Item 11. Executive Compensation.

The information required by this Item is incorporated herein by reference to the sections entitled "Board of Directors — Compensation Committee Report," "— Compensation Committee Interlocks and Insider Participation," "— Non-Employee Director Compensation," "Executive Compensation — Compensation Discussion and Analysis" and "— Executive Compensation Tables" in the Proxy Statement.

#### Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The information required by this Item is incorporated herein by reference to the sections entitled "Executive Compensation — Executive Compensation Tables — Equity Compensation Plan Table," "Director and Officer Stock Ownership," and "Security Ownership of Certain Beneficial Owners" in the Proxy Statement.

# Item 13. Certain Relationships and Related Transactions, and Director Independence.

The information required by this Item is incorporated herein by reference to the sections entitled "Board of Directors — Related Party Transactions" and "— Independence of Board Members" in the Proxy Statement.

# Item 14. Principal Accounting Fees and Services.

The information required by this Item is incorporated herein by reference to the section entitled "Ratification of Independent Registered Public Accounting Firm — Independent Registered Public Accounting Firm Fee Information" in the Proxy Statement.

# PART IV

# Item 15. Exhibits, Financial Statement Schedules.

# (a) (1) Consolidated Financial Statements:

Reports of Independent Registered Public Accounting Firm
Consolidated Balance Sheets as of December 31, 2017 and 2016
Consolidated Statements of Operations for the years ended December 31, 2017, 2016 and 2015
Consolidated Statements of Comprehensive Income for the years ended December 31, 2017, 2016 and 2015
Consolidated Statements of Cash Flows for the years ended December 31, 2017, 2016 and 2015
Consolidated Statements of Changes in Equity for the years ended December 31, 2017, 2016 and 2015
Notes to Consolidated Financial Statements

# (a) (2) Consolidated Financial Statement Schedules:

Schedule II — Valuation and Qualifying Accounts

All other schedules have been omitted because the required information is not significant or is included in the financial statements or notes thereto, or is not applicable.

# (a) (3) Exhibits:

Exhibit No.		Description
3.1	_	Third Restated Certificate of Incorporation of Waste Management, Inc. [incorporated by reference to
		Exhibit 3.1 to Form 10-Q for the quarter ended June 30, 2010].
3.2	_	Amended and Restated By-laws of Waste Management, Inc. [incorporated by reference to Exhibit 3.2 to
		Form 8-K dated November 13, 2017].
4.1	_	Specimen Stock Certificate [incorporated by reference to Exhibit 4.1 to Form 10-K for the year ended
		December 31, 1998].
4.2	_	Third Restated Certificate of Incorporation of Waste Management Holdings, Inc. [incorporated by
		reference to Exhibit 4.2 to Form 10-K for the year ended December 31, 2014].
4.3	_	Amended and Restated By-laws of Waste Management Holdings, Inc. [incorporated by reference to
		Exhibit 4.3 to Form 10-Q for the quarter ended June 30, 2014].
4.4	_	Indenture for Subordinated Debt Securities dated February 3, 1997, among the Registrant and The Bank
		of New York Mellon Trust Company, N.A. (the current successor to Texas Commerce Bank National
		Association), as trustee [incorporated by reference to Exhibit 4.1 to Form 8-K dated February 7, 1997].
4.5	_	Indenture for Senior Debt Securities dated September 10, 1997, among the Registrant and The Bank of
		New York Mellon Trust Company, N.A. (the current successor to Texas Commerce Bank National
		Association), as trustee [incorporated by reference to Exhibit 4.1 to Form 8-K dated September 10,
		<u>1997].</u>
4.6*	_	Officers' Certificate delivered pursuant to Section 301 of the Indenture dated September 10, 1997 by
		and between Waste Management, Inc. and The Bank of New York Mellon Trust Company, N.A., as
		Trustee, establishing the terms and form of Waste Management, Inc.'s 3.150% Senior Notes due 2027.
4.7*	_	Guarantee Agreement by Waste Management Holdings, Inc. in favor of The Bank of New York Mellon
		Trust Company, N.A., as Trustee for the holders of Waste Management, Inc.'s 3.150% Senior Notes due
		<u>2027.</u>



10.151		
10.15†	_	Employment Agreement between the Company and James E. Trevathan, Jr. dated June 1, 2000
10.161		[incorporated by reference to Exhibit 10.20 to Form 10-K for the year ended December 31, 2000].
10.16†	_	Amendment to Employment Agreement between the Company and James E. Trevathan, Jr. [incorporated by reference to Exhibit 10.3 to Form 8-K dated March 9, 2011].
10.17†		Employment Agreement between the Company and Jeff Harris dated December 1, 2006 [incorporated by
10.17	_	reference to Exhibit 10.1 to Form 8-K dated December 1, 2006].
10.18†	_	Amendment to Employment Agreement by and between the Company and Jeff Harris [incorporated by
10.10		reference to Exhibit 10.6 to Form 10-Q for the quarter ended March 31, 2011].
10.19†	_	Employment Agreement between the Company and John J. Morris, Jr. dated June 18, 2012
10.17		[incorporated by reference to Exhibit 10.4 to Form 10-Q for the quarter ended June 30, 2012].
10.20†	_	First Amended and Restated Employment Agreement between USA Waste-Management Resources, LLC
		and John J. Morris, Jr. [incorporated by reference to Exhibit 10.4 to Form 8-K dated December 22, 2017].
10.21†	_	Employment Agreement between the Company and Barry H. Caldwell dated September 23, 2002
		[incorporated by reference to Exhibit 10.24 to Form 10-K for the year ended December 31, 2002].
10.22†	_	Employment Offer Letter to Charles C. Boettcher dated August 5, 2016 [incorporated by reference to
		Exhibit 10.23 to Form 10-K for the year ended December 31, 2016].
10.23†*	_	Employment Agreement between USA Waste-Management Resources, LLC and Charles C. Boettcher
10.241		dated December 22, 2017.
10.24†	_	Employment Agreement between the Company and David Steiner dated May 6, 2002 [incorporated by
10.25†		reference to Exhibit 10.1 to Form 10-Q for the quarter ended March 31, 2002].  Separation and Release Agreement between the Company and David Steiner dated January 6, 2017
10.23	_	[incorporated by reference to Exhibit 10.1 to Form 8-K dated January 6, 2017].
10.26†	_	Employment Agreement between the Company and Puneet Bhasin dated December 7, 2009
10.20		[incorporated by reference to Exhibit 10.12 to Form 10-K for the year ended December 31, 2009].
10.27†	_	Separation and Release Agreement between USA Waste-Management Resources, LLC and Puneet
		Bhasin dated March 10, 2017 [incorporated by reference to Exhibit 10.3 to Form 10-Q for the quarter
		ended March 31, 2017].
10.28†	_	Employment Agreement between the Company and Mark Schwartz dated July 5, 2012 [incorporated by
		reference to Exhibit 10.5 to Form 10-Q for the quarter ended June 30, 2012].
10.29†	_	Separation and Release Agreement between USA Waste-Management Resources, LLC and Mark
		Schwartz dated January 1, 2017 [incorporated by reference to Exhibit 10.26 to Form 10-K for the year
10.20+		ended December 31, 2016].
10.30†	_	Form of Director and Executive Officer Indemnity Agreement [incorporated by reference to
10.31†		Exhibit 10.43 to Form 10-K for the year ended December 31, 2012].  Waste Management Holdings, Inc. Executive Severance Plan [incorporated by reference to Exhibit 10.1]
10.31	_	to Form 8-K dated December 22, 2017].
10.32†	_	Form of 2015 Senior Leadership Team Award Agreement [incorporated by reference to Exhibit 10.1 to
10.32		Form 8-K dated February 25, 2015].
10.33†	_	Form of 2016 Senior Leadership Team Award Agreement [incorporated by reference to Exhibit 10.1 to
'		Form 8-K dated February 26, 2016].
10.34†	_	Form of 2016 Individual Restricted Stock Unit Award Agreement [incorporated by reference to
		Exhibit 10.32 to Form 10-K for the year ended December 31, 2016].
10.35†	_	Form of 2017 Senior Leadership Team Award Agreement [incorporated by reference to Exhibit 10.1 to
		Form 8-K dated February 27, 2017].
10.36†	_	2017 Senior Leadership Team Award Agreement with Mr. James E. Trevathan, Jr. [incorporated by
10.271*		reference to Exhibit 10.2 to Form 8-K dated February 27, 2017].
10.37†*	_	Form of 2017 Long Term Incentive Compensation Award Agreement (Mid-Year Award).
12.1* 21.1*	_	Computation of Ratio of Earnings to Fixed Charges. Subsidiaries of the Registrant.
23.1*	_	Consent of Independent Registered Public Accounting Firm.
31.1*	_	Certification Pursuant to Rule 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as
J 1.1		amended, of James C. Fish, Jr., President and Chief Executive Officer.

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31.2*	_	Certification Pursuant to Rule 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as amended, of Devina A. Rankin, Senior Vice President and Chief Financial Officer.
		amended, of Devina A. Kankin, Senior vice President and Chief Financial Officer.
32.1**	_	Certification Pursuant to 18 U.S.C. §1350 of James C. Fish, Jr., President and Chief Executive Officer.
32.2**	_	Certification Pursuant to 18 U.S.C. §1350 of Devina A. Rankin, Senior Vice President and Chief
		Financial Officer.
95*	_	Mine Safety Disclosures.
101.INS*	_	XBRL Instance Document.
101.SCH*		XBRL Taxonomy Extension Schema Document.
101.CAL*	_	XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF*	_	XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB*		XBRL Taxonomy Extension Labels Linkbase Document.
101.PRE*		XBRL Taxonomy Extension Presentation Linkbase Document.

<sup>\*</sup> Filed herewith.

# Item 16. Form 10-K Summary.

None.

<sup>\*\*</sup> Furnished herewith.

<sup>†</sup> Denotes management contract or compensatory plan or arrangement.

# **SIGNATURES**

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

WASTE MANAGEMENT, INC.

By:	/s/ JAMES C. FISH, JR.					
=	James C. Fish, Jr.					
President, Chief Executive Officer and Director						

Date: February 15, 2018

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

Signature	Title	Date
/s/ JAMES C. FISH, JR. James C. Fish, Jr.	President, Chief Executive Officer and Director (Principal Executive Officer)	February 15, 2018
/s/ DEVINA A. RANKIN Devina A. Rankin	Senior Vice President and Chief Financial Officer (Principal Financial Officer)	February 15, 2018
/s/ LESLIE K. NAGY Leslie K. Nagy	Vice President and Chief Accounting Officer (Principal Accounting Officer)	February 15, 2018
/s/ BRADBURY H. ANDERSON Bradbury H. Anderson	Chairman of the Board and Director	February 15, 2018
/s/ FRANK M. CLARK, JR. Frank M. Clark	Director	February 15, 2018
/s/ ANDRÉS R. GLUSKI Andrés R. Gluski	Director	February 15, 2018
/s/ PARTICK W. GROSS Patrick W. Gross	Director	February 15, 2018
/s/ VICTORIA M. HOLT Victoria M. Holt	Director	February 15, 2018
/s/ KATHLEEN M. MAZZARELLA Kathleen M. Mazzarella	Director	February 15, 2018
/s/ JOHN C. POPE John C. Pope	Director	February 15, 2018
/s/ THOMAS H. WEIDEMEYER Thomas H. Weidemeyer	Director	February 15, 2018
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# REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders of Waste Management, Inc.

# **Opinion on the Financial Statement Schedule**

We have audited the consolidated financial statements of Waste Management, Inc. (the Company) as of December 31, 2017 and 2016, and for each of the three years in the period ended December 31, 2017, and have issued our report thereon dated February 15, 2018 (included elsewhere in this Form 10-K). Our audits also included the financial statement schedule listed in Item 15(a)(2) of this Form 10-K. In our opinion, the financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly, in all material respects the information set forth therein.

# **Basis for Opinion**

This schedule is the responsibility of the Company's management. Our responsibility is to express an opinion on this schedule based on our audits. We believe that our audits provide a reasonable basis for our opinion.

/s/ ERNST & YOUNG LLP

Houston, Texas February 15, 2018

# $\begin{array}{c} \textbf{SCHEDULE II -- VALUATION AND QUALIFYING ACCOUNTS} \\ \textbf{(In Millions)} \end{array}$

	Balance Beginning of Year		narged to icome	V Of	ccounts Vritten f/Use of Leserve	Balance End of Year	
2015 — Reserves for doubtful accounts (a)	\$	31	\$ 36	\$	(42)	\$	25
2016 — Reserves for doubtful accounts (a)	\$	25	\$ 42	\$	(43)	\$	24
2017 — Reserves for doubtful accounts (a)	\$	24	\$ 43	\$	(45)	\$	22
2015 — Merger and restructuring accruals (b)	\$	45	\$ 15	\$	(47)	\$	13
2016 — Merger and restructuring accruals (b)	\$	13	\$ 4	\$	(10)	\$	7
2017 — Merger and restructuring accruals (b)	\$	7	\$ _	\$	(5)	\$	2

<sup>(</sup>a) Includes reserves for doubtful accounts receivable and notes receivable.

<sup>(</sup>b) Included in accrued liabilities in our Consolidated Balance Sheets. These accruals represent employee severance and benefit costs and transitional costs.

# WASTE MANAGEMENT, INC. Officers' Certificate Delivered Pursuant to Section 301 of the Indenture dated as of September 10, 1997

The undersigned, the Vice President and Treasurer, and the Vice President and Corporate Secretary of Waste Management, Inc. (the "Company"), hereby certify that:

- 1. This Certificate is delivered to The Bank of New York Mellon Trust Company, N.A. (the current successor to Texas Commerce Bank National Association), as trustee (the "Trustee"), pursuant to Sections 102 and 301 of the Indenture dated as of September 10, 1997 between the Company, formerly known as USA Waste Services, Inc., and the Trustee in connection with the Company Order dated November 8, 2017 (the "Order") for the authentication and delivery by the Trustee of \$750,000,000 aggregate principal amount of 3.150% Senior Notes due 2027 (the "Notes").
- 2. The undersigned have read Sections 102, 103, 301 and 303 of the Indenture and the definitions in the Indenture relating thereto.
- 3. The statements made herein are based either upon the personal knowledge of the persons making this Certificate or on information, data and reports furnished to such persons by the officers, counsel, department heads or employees of the Company who have knowledge of the facts involved.
- 4. The undersigned have examined the Order, and they have read the covenants, conditions and provisions of the Indenture relating thereto.
- 5. In the opinion of the persons making this Certificate, they have made such examination or investigation as is necessary to enable them to express an informed opinion as to whether or not all covenants and conditions provided for in the Indenture with respect to the Order have been complied with.
- 6. All covenants and conditions (including all conditions precedent) provided in the Indenture to the authentication and delivery by the Trustee of \$750,000,000 aggregate principal amount of the Notes have been complied with, and such Notes may be delivered in accordance with the Order as provided in the Indenture.
- 7. The terms of the Notes (including the Form of Note) as set forth in <u>Annex A</u> to this Officers' Certificate have been approved by officers of the Company as authorized by resolutions duly adopted on August 20, 2015 by the Board of Directors of the Company, copies of which are attached hereto as <u>Annex B</u>, are in full force and effect as of the date hereof.

[signature page follows]

IN WITNESS WHEREOF, the undersigned has hereunto executed as of the date first written above.

/s/ David Reed

David Reed

Vice President and Treasurer

/s/ Courtney A. Tippy

Courtney A. Tippy
Vice President and Corporate Secretary

# Annex A Terms of the Notes

Pursuant to authority granted by the Board of Directors of the Company on August 20, 2015 and the Sole Director of Waste Management Holdings, Inc. on October 19, 2015 and October 24, 2017, the Company has approved the establishment, issuance, execution and delivery of a new series of Securities (as defined in the Indenture) to be issued under the Indenture dated as of September 10, 1997 (the "Indenture"), between the Company, formerly known as USA Waste Services, Inc., and The Bank of New York Mellon Trust Company, N.A. (the current successor to Texas Commerce Bank National Association), as trustee (the "Trustee"), the terms of which are set forth below. Capitalized terms used but not defined herein are used herein as defined in the Indenture.

- (1) The title of the series of Securities shall be "3.150% Senior Notes due 2027" (the "Notes").
- (2) The Notes shall be general unsecured, senior obligations of the Company.
- (3) The initial aggregate principal amount of the Notes that may be authenticated and delivered under the Indenture shall be \$750,000,000 (except for Notes authenticated and delivered upon registration of transfer of, or in exchange for, or in lieu of, other Notes pursuant to Section 304, 305, 306, 906 or 1107 of the Indenture); provided, however, that the authorized aggregate principal amount of such series may be increased before or after the issuance of any Notes of such series by a Board Resolution (or action pursuant to a Board Resolution) to such effect.
- (4) The principal amount of each Note shall be payable on November 15, 2027.
- (5) Each Note shall bear interest from November 8, 2017 at the fixed rate of 3.150% per annum; the Interest Payment Dates on which such interest shall be payable shall be May 15 and November 15, of each year, commencing May 15, 2018, until maturity unless such date falls on a day that is not a Business Day, in which case, such payment shall be made on the next day that is a Business Day. The Regular Record Date for the determination of Holders to whom interest is payable shall be May 1 or November 1, respectively, immediately preceding such date, as the case may be.
- (6) If a "Change of Control Triggering Event" (as defined in the Notes) occurs, each Holder of the Notes may require the Company to purchase all or a portion of such Holder's Notes at a price equal to 101% of the principal amount, plus accrued interest, if any, to the date of purchase, on the terms and subject to the conditions set forth in the Notes.
- (7) The Notes are to be issued as Registered Securities only. Each Note is to be issued as a book-entry note ("Book-Entry Note") but in certain circumstances may be represented by Notes in definitive form. The Book-Entry Notes shall be issued, in whole or in part, in the form of one or more Notes in global form as contemplated by Section 203 of the Indenture. The Depositary with respect to the Book-Entry Notes shall be The Depository Trust Company, New York, New York.
- (8) Payments of principal of, premium, if any, and interest due on the Notes representing Book-Entry Notes on any Interest Payment Date or at maturity will be made available to the Trustee by 11:00 a.m., New York City time, on such date, unless such date falls on a day

- which is not a Business Day, in which case such payments will be made available to the Trustee by 11:00 a.m., New York City time, on the next Business Day. As soon as possible thereafter, the Trustee will make such payments to the Depositary.
- (9) Before the Par Call Date, the Notes will be redeemable and repayable, at the option of the Company, at any time in whole, or from time to time in part, at a Redemption Price equal to the greater of (i) 100% of the principal amount of the Notes to be redeemed or (ii) the sum, as calculated by the Company, of the present values of the remaining scheduled payments of principal and interest thereon that would be due if the Notes matured on the Par Call Date (exclusive of interest accrued to the Redemption Date (as defined in the Notes) discounted to the Redemption Date on a semi-annual basis (assuming a 360-day year consisting of twelve 30-day months) at the applicable Treasury Yield (as defined in the Notes) plus 15 basis points; plus, in either case, accrued interest to the Redemption Date. On or after the Par Call Date, the Notes will be redeemable and repayable, at the option of the Company, at any time in whole, or from time to time in part, at a Redemption Price equal to 100% of the principal amount of the Notes to be redeemed plus accrued interest on the Notes to be redeemed to the Redemption Date. "Par Call Date" means August 15, 2027.
- (10) The Company shall have no obligation to redeem, purchase or repay the Notes pursuant to any mandatory redemption, sinking fund or analogous provisions or at the option of a Holder thereof.
- (11) The Notes will be subject to defeasance and discharge as contemplated by Section 1302 of the Indenture and to covenant defeasance under Section 1303 of the Indenture.
- (12) The Notes shall be entitled to the benefit of the covenants contained in Sections 1008 and 1009 of the Indenture.
- (13) The Bank of New York Mellon Trust Company, N.A. shall serve initially as Security Registrar for the Notes.
- (14) The Notes shall be substantially in the form of Exhibit A hereto.
- (15) The Notes will be fully and unconditionally guaranteed on a senior basis by the Company's wholly owned subsidiary, Waste Management Holdings, Inc., pursuant to the terms and conditions of a Guarantee Agreement dated November 8, 2017 (the "Guarantee"). The amount of the Guarantee will be limited to the extent required under applicable fraudulent conveyance laws to cause the Guarantee to be enforceable. The terms and conditions of the Guarantee shall continue in full force and effect for the benefit of holders of the Notes until release thereof as set forth in Section 6 of the Guarantee.

#### **BOOK-ENTRY SECURITY**

THIS SECURITY IS A BOOK-ENTRY SECURITY WITHIN THE MEANING OF THE INDENTURE HEREINAFTER REFERRED TO AND IS REGISTERED IN THE NAME OF A DEPOSITORY OR A NOMINEE OF A DEPOSITORY. THIS SECURITY IS EXCHANGEABLE FOR SECURITIES REGISTERED IN THE NAME OF A PERSON OTHER THAN THE DEPOSITORY OR ITS NOMINEE ONLY IN THE LIMITED CIRCUMSTANCES DESCRIBED IN THE INDENTURE, AND NO TRANSFER OF THIS SECURITY (OTHER THAN A TRANSFER OF THIS SECURITY AS A WHOLE BY THE DEPOSITORY TO A NOMINEE OF THE DEPOSITORY OR BY A NOMINEE OF THE DEPOSITORY TO THE DEPOSITORY OR ANOTHER NOMINEE OF THE DEPOSITORY) MAY BE REGISTERED EXCEPT IN SUCH LIMITED CIRCUMSTANCES.

**UNLESS THIS** CERTIFICATE IS **PRESENTED** BY ANAUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY, A NEW YORK CORPORATION ("DTC"), TO THE COMPANY (AS DEFINED BELOW) OR ITS AGENT FOR REGISTRATION FOR TRANSFER, EXCHANGE OR PAYMENT, AND ANY CERTIFICATE ISSUED IS REGISTERED IN THE NAME OF CEDE & CO. OR SUCH OTHER NAME AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC (AND ANY PAYMENT IS MADE TO CEDE & CO. OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL INASMUCH AS THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN.

RGN Principal Amount

WASTE MANAGEMENT, INC.

U.S. \$ , which may be decreased by the Schedule of Exchanges of Definitive Security attached hereto

3.150% SENIOR NOTES DUE 2027

**CUSIP 94106L BE8** 

WASTE MANAGEMENT, INC., a Delaware corporation (the "Company," which term includes any successors under the Indenture hereinafter referred to), for value received, hereby promises to pay to CEDE & CO. or registered assigns, at the office or agency of the Company, the principal sum of Million (\$ ) U.S. dollars, or such lesser principal sum as is shown on the attached Schedule of Exchanges of Definitive Security, on November 15, 2027 in such coin or currency of the United States of America as at the time of payment shall be legal tender for the payment of public and private debts, and to pay interest at an annual rate of 3.150% payable on May 15 and November 15 of each year, to the person in whose name this Security is registered at the close of business on the record date for such interest, which shall be the preceding May 1 or November 1, respectively, payable commencing May 15, 2018, with interest accruing from November 8, 2017, or the most recent date to which interest has been paid.

Reference is made to the further provisions of this Security set forth on the reverse hereof. Such further provisions shall for all purposes have the same effect as though fully set forth at this place.

The statements in the legends set forth above are an integral part of the terms of this Security and by acceptance hereof the Holder of this Security agrees to be subject to, and bound by, the terms and provisions set forth in each such legend.

This Security is issued in respect of a series of Securities of an initial aggregate of U.S. \$750,000,000 in principal amount designated as the 3.150% Senior Notes due 2027 of the Company and is governed by the Indenture dated as of September 10, 1997, duly executed and delivered by the Company, formerly known as USA Waste Services, Inc., to The Bank of New York Mellon Trust Company, N.A. (the current successor to Texas Commerce Bank National Association) as trustee (the "Trustee"), as supplemented by Board Resolutions (as defined in the Indenture) (such Indenture and Board Resolutions, collectively, the "Indenture"). The terms of the Indenture are incorporated herein by reference. This Security shall in all respects be entitled to the same benefits as definitive Securities under the Indenture.

If and to the extent that any provision of the Indenture limits, qualifies or conflicts with any other provision of the Indenture that is required to be included in the Indenture or is deemed applicable to the Indenture by virtue of the provisions of the Trust Indenture Act of 1939, as amended, such required provision shall control.

The Company hereby irrevocably undertakes to the Holder hereof to exchange this Security in accordance with the terms of the Indenture without charge.

This Security shall not be valid or become obligatory for any purpose until the Certificate of Authentication hereon shall have been manually signed by the Trustee under the Indenture.

IN WITNESS WHEREOF, the Company has caused this instrument to be duly executed under its corporate seal.

Dated:		E MANAGEMENT, INC., ware corporation						
	By:							
		David L. Reed						
		Vice President and Treasurer						
	Attest:							
	By:							
		Courtney A. Tippy						
		Vice President and Corporate Secretary						
CERTIFICATE OF AUTHENTICATION	1							
This is one of the Securities of the series Indenture.	designat	ed therein referred to in the within-mentioned						
Date of Authentication:	The Ba	ink of New York Mellon Trust Company,						
		as Trustee						
	By:							
		Authorized Officer						

#### REVERSE OF BOOK-ENTRY SECURITY

# WASTE MANAGEMENT, INC.

# 3.150% SENIOR NOTES DUE 2027

This Security is one of a duly authorized issue of unsecured debentures, notes or other evidences of indebtedness of the Company (the "Debt Securities") of the series hereinafter specified, all issued or to be issued under and pursuant to the Indenture, to which Indenture reference is hereby made for a description of the rights, limitations of rights, obligations, duties and immunities thereunder of the Trustee, the Company and the Holders of the Debt Securities. The Debt Securities may be issued in one or more series, which different series may be issued in various aggregate principal amounts, may mature at different times, may bear interest (if any) at different rates, may be subject to different sinking, purchase or analogous funds (if any) and may otherwise vary as provided in the Indenture. This Security is one of a series designated as the 3.150% Senior Notes due 2027 of the Company, in initial aggregate principal amount of \$750,000,000 (the "Securities").

# 1. Interest.

The Company promises to pay interest on the principal amount of this Security at the rate of 3.150% per annum.

The Company will pay interest semi-annually on May 15 and November 15 of each year (each an "Interest Payment Date"), commencing May 15, 2018. Interest on the Securities will accrue from the most recent date to which interest has been paid or, if no interest has been paid on the Securities, from November 8, 2017. Interest will be computed on the basis of a 360-day year consisting of twelve 30-day months. The Company shall pay interest (including post-petition interest in any proceeding under any applicable bankruptcy laws) on overdue installments of interest (without regard to any applicable grace period) and on overdue principal and premium, if any, from time to time on demand at the rate of 3.150% per annum, in each case to the extent lawful.

# 2. Method of Payment.

The Company shall pay interest on the Securities (except Defaulted Interest) to the persons who are the registered Holders at the close of business on the Regular Record Date immediately preceding the Interest Payment Date. Any such interest not so punctually paid or duly provided for ("Defaulted Interest") may be paid to the persons who are registered Holders at the close of business on a Special Record Date for the payment of such Defaulted Interest, or in any other lawful manner not inconsistent with the requirements of any securities exchange on which such Securities may then be listed if such manner of payment shall be deemed practicable by the Trustee, as more fully provided in the Indenture. Except as provided below, the Company shall pay principal and interest in such coin or currency of the United States of America as at the time of payment shall be legal tender for payment of public and private debts ("U.S. Legal Tender"). Payments in respect of a Book-Entry Security (including principal, premium, if any, and interest) will be made by wire transfer of immediately available funds to the accounts specified by the Depository. Payments in respect of Securities in definitive form (including principal, premium, if any, and interest) will be made at the office or agency of the Company maintained for such purpose within the Borough of Manhattan, the City of New York, which initially will be at the corporate trust office of The Bank of New York Mellon, located at 101 Barclay Street, Floor21W, New York, New York, 10286 or at the option of the Company, payment of

interest may be made by check mailed to the Holders on the Regular Record Date or on the Special Record Date at their addresses set forth in the Security Register of Holders.

# 3. Paying Agent and Registrar.

Initially, The Bank of New York Mellon Trust Company, N.A. will act as Paying Agent and Registrar. The Company may change any Paying Agent, Registrar or co-Registrar at any time upon notice to the Trustee and the Holders. The Company or any of its Subsidiaries may, subject to certain exceptions, act as Paying Agent, Registrar or co-Registrar.

# 4. *Indenture*.

This Security is one of a duly authorized issue of Debt Securities of the Company issued and to be issued in one or more series under the Indenture.

Capitalized terms herein are used as defined in the Indenture unless otherwise defined herein. The terms of the Securities include those stated in the Indenture and all indentures supplemental thereto, those made part of the Indenture by reference to the Trust Indenture Act of 1939, as amended, as in effect on the date of the Indenture, and those terms stated in the Officers' Certificate to the Trustee, duly authorized by resolutions of the Board of Directors of the Company on August 20, 2015 (the "Resolutions") and the written consents of the Sole Director of Waste Management Holdings, Inc. on October 19, 2015 and October 24, 2017 (the "Consents"). The Securities are subject to all such terms, and Holders of Securities are referred to the Indenture, all indentures supplemental thereto, said Act, said Resolutions and said Consents and Officers' Certificate for a statement of them. The Securities of this series are general unsecured obligations of the Company limited with an initial aggregate principal amount of \$750,000,000.

# 5. Redemption.

Before the Par Call Date, the Securities will be redeemable and repayable, at the option of the Company, at any time in whole, or from time to time in part, at a Redemption Price (the "Make-Whole Price") equal to the greater of: (i) 100% of the principal amount of the Securities to be redeemed; or (ii) the sum, as calculated by the Company, of the present values of the remaining scheduled payments of principal and interest on the Securities that would be due if such Securities matured on the Par Call Date (exclusive of interest accrued to the Redemption Date) discounted to the Redemption Date on a semi-annual basis (assuming a 360-day year consisting of twelve 30-day months) at the applicable Treasury Yield plus 15 basis points; plus, in either case, accrued interest to the Redemption Date.

On or after the Par Call Date, the Securities will be redeemable and repayable, at the option of the Company, at any time in whole, or from time to time in part, at a Redemption Price equal to 100% of the principal amount of the Securities to be redeemed plus accrued interest on the Securities to be redeemed to the Redemption Date.

Securities called for redemption become due on the Redemption Date. Notices of redemption will be mailed at least 30 but not more than 60 days before the Redemption Date to each holder of record of the Securities to be redeemed at its registered address. The notice of redemption for the Securities will state, among other things, the amount of Securities to be redeemed, the Redemption Date, the Redemption Price or, if not ascertainable, the manner of determining the Make-Whole Price and the place(s) that payment will be made upon presentation and surrender of Securities to be redeemed. Unless the Company defaults in payment of the Make-Whole Price, interest will cease to accrue on any Securities that have been called for redemption at the Redemption Date. If less than all

the Securities are redeemed at any time, the Trustee will select the Securities to be redeemed on a pro rata basis or by any other method the Trustee deems fair and appropriate.

For purposes of determining the Make-Whole Price, the following definitions are applicable:

"Treasury Yield" means, with respect to any Redemption Date applicable to the Securities, the rate per annum equal to the semi-annual equivalent yield to maturity (computed as of the third Business Day immediately preceding such Redemption Date) of the Comparable Treasury Issue, assuming a price for the Comparable Treasury Issue (expressed as a percentage of its principal amount) equal to the applicable Comparable Treasury Price for such Redemption Date.

"Comparable Treasury Issue" means the United States Treasury security selected by an Independent Investment Banker as having a maturity comparable to the remaining term of the Securities, calculated as if the maturity date of such Securities were the Par Call Date (the "Remaining Life"), that would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the Remaining Life of the Securities.

"Independent Investment Banker" means one of the Reference Treasury Dealers appointed by us to act as the Independent Investment Banker from time to time.

"Comparable Treasury Price" means, with respect to any Redemption Date, (i) the average of the Reference Treasury Dealer Quotations for the Redemption Date, after excluding the highest and lowest of all Reference Treasury Dealer Quotations obtained, or (ii) if the Independent Investment Banker obtains fewer than four such Reference Treasury Dealer Quotations, the average of all Reference Treasury Dealer Quotations.

"Par Call Date" means August 15, 2027.

"Reference Treasury Dealer" means (i) each of Barclays Capital Inc., J.P. Morgan Securities LLC and Merrill Lynch, Pierce, Fenner & Smith Incorporated (and their respective successors), unless any of them ceases to be a primary U.S. government securities dealer in New York City (a "Primary Treasury Dealer"), in which case the Company will substitute therefor another Primary Treasury Dealer, and (ii) any other Primary Treasury Dealer selected by the Company.

"Reference Treasury Dealer Quotations" means, with respect to each Reference Treasury Dealer and any Redemption Date for the Securities, an average, as determined by the Independent Investment Banker, of the bid and asked prices for the Comparable Treasury Issue for the Securities (expressed in each case as a percentage of its principal amount) quoted in writing to the Independent Investment Banker by such Reference Treasury Dealer at 5:00 p.m., New York City time, on the third Business Day preceding such Redemption Date.

Except as set forth above, the Securities will not be redeemable prior to their Stated Maturity and will not be entitled to the benefit of any sinking fund.

The Securities may be redeemed in part in a minimum principal amount of \$2,000, or any integral multiple of \$1,000 in excess thereof.

Any such redemption will also comply with Article Eleven of the Indenture.

# 6. Change of Control Offer.

If a Change of Control Triggering Event occurs, unless the Company has exercised its option to redeem the Securities as described in Section 5, the Company shall make an offer (a "Change of Control Offer") to each Holder of the Securities to repurchase all or any part (equal to \$2,000 or an integral multiple of \$1,000 in excess thereof) of that Holder's Securities on the terms set forth herein. In a Change of Control Offer, the Company shall offer payment in cash equal to 101% of the aggregate principal amount of Securities repurchased (a "Change of Control Payment"), plus accrued and unpaid interest, if any, on the Securities repurchased to the date of repurchase, subject to the right of holders of record on the applicable record date to receive interest due on the next Interest Payment Date.

Within 30 days following any Change of Control Triggering Event or, at the Company's option, prior to any Change of Control, but after public announcement of the transaction that constitutes or may constitute the Change of Control, the Company shall mail a notice to Holders of the Securities describing the transaction that constitutes or may constitute the Change of Control Triggering Event and offering to repurchase such Securities on the date specified in the applicable notice, which date shall be no earlier than 30 days and no later than 60 days from the date such notice is mailed (a "Change of Control Payment Date"). The notice may, if mailed prior to the date of consummation of the Change of Control, state that the Change of Control Offer is conditioned on the Change of Control Triggering Event occurring on or prior to the applicable Change of Control Payment Date.

Upon the Change of Control Payment Date, the Company shall, to the extent lawful:

- accept for payment all Securities or portions of Securities properly tendered and not withdrawn pursuant to the Change of Control Offer;
- deposit with the Paying Agent an amount equal to the Change of Control Payment in respect of all Securities or portions of Securities properly tendered; and
- deliver or cause to be delivered to the Trustee the Securities properly accepted together with an Officers' Certificate stating the aggregate principal amount of Securities or portions of Securities being repurchased.

The Company need not make a Change of Control Offer upon the occurrence of a Change of Control Triggering Event if a third party makes such an offer in the manner, at the times and otherwise in compliance with the requirements for an offer made by the Company and the third party repurchases all Securities properly tendered and not withdrawn under its offer. In addition, the Company shall not repurchase any Securities if there has occurred and is continuing on the Change of Control Payment Date an Event of Default under the Indenture, other than a default in the payment of the Change of Control Payment upon a Change of Control Triggering Event.

The Company will comply with the applicable requirements of Rule 14e-1 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and any other securities laws and regulations thereunder to the extent those laws and regulations are applicable in connection with the repurchase of the Securities as a result of a Change of Control Triggering Event. To the extent that the provisions of any securities laws or regulations conflict with the Change of Control Offer provisions of this Security, the Company will comply with those securities laws and regulations and will not be

deemed to have breached its obligations under the Change of Control Offer provisions of this Security by virtue of any such conflict.

For purposes of the Change of Control Offer provisions of the Securities, the following terms are applicable:

"Change of Control" means the occurrence of any of the following: (1) the direct or indirect sale, lease, transfer, conveyance or other disposition (other than by way of merger or consolidation), in one or more series of related transactions, of all or substantially all of the Company's assets and the assets of its Subsidiaries, taken as a whole, to any person, other than the Company or one of its Subsidiaries; (2) the consummation of any transaction (including, without limitation, any merger or consolidation) the result of which is that any person becomes the beneficial owner (as defined in Rules 13d-3 and 13d-5 under the Exchange Act), directly or indirectly, of more than 50% of the outstanding Voting Stock of the Company or other Voting Stock into which the Company's Voting Stock is reclassified, consolidated, exchanged or changed, measured by voting power rather than number of shares; (3) the Company consolidates with, or merges with or into, any person, or any person consolidates with, or merges with or into, the Company, in any such event pursuant to a transaction in which any of the outstanding Voting Stock of the Company or the Voting Stock of such other person is converted into or exchanged for cash, securities or other property, other than any such transaction where the shares of the Voting Stock of the Company outstanding immediately prior to such transaction constitute, or are converted into or exchanged for, a majority of the Voting Stock of the surviving person or any direct or indirect parent company of the surviving person, measured by voting power rather than number of shares, immediately after giving effect to such transaction; (4) the first day on which a majority of the members of the Board of Directors of the Company are not Continuing Directors; or (5) the adoption of a plan relating to the liquidation or dissolution of the Company.

Notwithstanding the preceding, a transaction will not be deemed to involve a Change of Control under clause (2) above if (i) the Company becomes a direct or indirect wholly-owned subsidiary of a holding company and (ii)(A) the direct or indirect holders of the Voting Stock of such holding company immediately following that transaction are substantially the same as the holders of Voting Stock of the Company immediately prior to that transaction or (B) immediately following that transaction no person (other than a holding company satisfying the requirements of this sentence) is the beneficial owner, directly or indirectly, of more than 50% of the Voting Stock of such holding company. The term "person," as used in this definition, has the meaning given thereto in Section 13(d)(3) of the Exchange Act.

"Change of Control Triggering Event" means the occurrence of both a Change of Control and a Rating Event.

"Continuing Directors" means, as of any date of determination, any member of the Board of Directors of the Company who (1) was a member of such Board of Directors on the date the Securities were issued or (2) was nominated for election, elected or appointed to such Board of Directors with the approval of a majority of the Continuing Directors who were members of such Board of Directors at the time of such nomination, election or appointment (either by a specific vote or by approval of the Company's proxy statement in which such member was named as a nominee for election as a director, without objection to such nomination).

"Fitch" means Fitch Inc. and its successors.

"Investment Grade Rating" means a rating equal to or higher than BBB- (or the equivalent) by Fitch, Baa3 (or the equivalent) by Moody's and BBB- (or the equivalent) by S&P, and the equivalent investment grade credit rating from any replacement Rating Agency or Rating Agencies selected by the Company.

"Moody's" means Moody's Investors Service, Inc. and its successors.

"Rating Agencies" means (1) each of Fitch, Moody's and S&P and (2) if any of Fitch, Moody's or S&P ceases to rate the Securities or fails to make a rating of the Securities publicly available for reasons outside of the Company's control, a "nationally recognized statistical rating organization" within the meaning of Section 3(a)(62) of the Exchange Act selected by the Company (as certified by a resolution of our Board of Directors) as a replacement agency for Fitch, Moody's or S&P, or all of them, as the case may be.

"Rating Event" means the rating on the Securities is lowered by at least two of the three Rating Agencies and the Securities are rated below an Investment Grade Rating by at least two of the three Rating Agencies, in any case on any day during the period (which period will be extended so long as the rating of the Securities is under publicly announced consideration for a possible downgrade by any of the rating agencies) commencing 60 days prior to the first public notice of the occurrence of a Change of Control or the Company's intention to effect a Change of Control and ending 60 days following consummation of such Change of Control.

"S&P" means S&P Global Ratings, a division of S&P Global Inc., and its successors.

"Voting Stock" means, with respect to any specified "person" (as that term is used in Section 13(d) (3) of the Exchange Act) as of any date, the capital stock of such person that is at the time entitled to vote generally in the election of the board of directors of such person.

#### 7. Denominations; Transfer; Exchange.

The Securities are issued in registered form, without coupons, in a minimum denomination of \$2,000 and integral multiples of \$1,000 in excess thereof. A Holder may register the transfer of, or exchange, Securities in accordance with the Indenture. The Securities Registrar may require a Holder, among other things, to furnish appropriate endorsements and transfer documents and to pay any taxes and fees required by law or permitted by the Indenture.

#### 8. Person Deemed Owners.

The registered Holder of a Security may be treated as the owner of it for all purposes.

#### 9. Amendment; Supplement; Waiver.

Subject to certain exceptions, the Indenture may be amended or supplemented, and any existing Event of Default or compliance with any provision may be waived, with the consent of the Holders of a majority in principal amount of the Outstanding Debt Securities of each series affected. Without consent of any Holder, the parties thereto may amend or supplement the Indenture or the Securities to, among other things, cure any ambiguity, defect or inconsistency, or make any other change that does not adversely affect the interests of any Holder of a Security in any material respect. Any such consent or waiver by the Holder of this Security (unless revoked as provided in the Indenture) shall be

conclusive and binding upon such Holder and upon all future Holders and owners of this Security and any Securities which may be issued in exchange or substitution herefor, irrespective of whether or not any notation thereof is made upon this Security or such other Securities.

#### 10. Defaults and Remedies.

If an Event of Default with respect to the Securities occurs and is continuing, then in every such case the Trustee or the Holders of not less than 25% in principal amount of the Securities then Outstanding may declare the principal amount of all the Securities to be due and payable immediately in the manner and with the effect provided in the Indenture. Notwithstanding the preceding sentence, however, if at any time after such a declaration of acceleration has been made and before judgment or decree for payment of the money due has been obtained by the Trustee as provided in the Indenture, the Holders of a majority in principal amount of the Outstanding Securities, by written notice to the Company and to the Trustee, may rescind and annul such declaration and its consequences if (1) the Company has paid or deposited with the Trustee a sum sufficient to pay (A) all overdue interest on all Securities, (B) the principal of (and premium, if any, on) any Securities which has become due otherwise than by such declaration of acceleration and any interest thereon at the rate prescribed therefor herein, (C) to the extent that payment of such interest is lawful, interest upon overdue interest at the rate prescribed therefor herein, and (D) all sums paid or advanced by the Trustee and the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel and (2) all Events of Default under the Indenture with respect to the Securities, other than the nonpayment of the principal of Securities which has become due solely by such declaration acceleration, shall have been cured or shall have been waived. No such rescission shall affect any subsequent Event of Default or shall impair any right consequent thereon. Holders of Securities may not enforce the Indenture or the Securities except as provided in the Indenture. The Trustee may require indemnity satisfactory to it before it enforces the Indenture or the Securities. Subject to certain limitations, Holders of a majority in aggregate principal amount of the Securities then outstanding may direct the Trustee in its exercise of any trust or power.

#### 11. Trustee Dealings with Company.

The Trustee under the Indenture, in its individual or any other capacity, may make loans to, accept deposits from, and perform services for the Company and its Affiliates and any subsidiary of the Company's Affiliates, and may otherwise deal with the Company and its Affiliates as if it were not the Trustee.

#### 12. Authentication.

This Security shall not be valid until the Trustee or authenticating agent signs the certificate of authentication on the other side of this Security.

#### 13. *Abbreviations and Defined Terms.*

Customary abbreviations may be used in the name of a Holder of a Security or an assignee, such as: TEN COM (tenant in common), TEN ENT (tenants by the entireties), JT TEN (joint tenants with right of survivorship and not as tenants in common), CUST (Custodian), and U/G/M/A (Uniform Gifts to Minors Act).

#### 14. CUSIP Numbers.

Pursuant to a recommendation promulgated by the Committee on Uniform Note Identification Procedures, the Company has caused CUSIP numbers to be printed on the Securities as a convenience to the Holders of the Securities. No representation is made as to the accuracy of such number as printed on the Securities and reliance may be placed only on the other identification numbers printed hereon.

#### 15. Absolute Obligation.

No reference herein to the Indenture and no provision of this Security or the Indenture shall alter or impair the obligation of the Company, which is absolute and unconditional, to pay the principal of, premium, if any, and interest on this Security in the manner, at the respective times, at the rate and in the coin or currency herein prescribed.

#### 16. No Recourse.

No recourse under or upon any obligation, covenant or agreement contained in the Indenture or in any Security, or because of any indebtedness evidenced thereby, shall be had against any incorporator, past, present or future stockholder, officer or director, as such of the Company or of any successor, either directly or through the Company or any successor, under any rule of law, statute or constitutional provision or by the enforcement of any assessment or by any legal or equitable proceeding or otherwise, all such liability being expressly waived and released by the acceptance of the Security by the Holder and as part of the consideration for the issue of the Security.

#### 17. Governing Law.

This Security shall be construed in accordance with and governed by the laws of the State of New York.

#### 18. Guarantee.

The Securities will be fully and unconditionally guaranteed on a senior basis by the Company's wholly owned subsidiary, Waste Management Holdings, Inc., pursuant to the terms and conditions of a Guarantee, dated as of November 8, 2017 (the "Guarantee"). The amount of the Guarantee will be limited to the extent required under applicable fraudulent conveyance laws to cause the Guarantee to be enforceable. The terms and conditions of the Guarantee shall continue in full force and effect for the benefit of holders of the Securities until release thereof as set forth in Section 6 of the Guarantee.

### SCHEDULE OF EXCHANGES OF DEFINITIVE SECURITY

The following exchanges of a part of this Book-Entry Security for definitive Securities have been made:

	Amount of decrease in Principal	Amount of increase in	Principal Amount of this Book-Entry	Signature of
	Amount of this	Principal Amount	Security following	authorized officer of
Date of Exchange	Book-Entry Security	of this Book-Entry Security	such decrease (or increase)	Trustee or Security Custodian

## Annex B Resolutions of the Board of Directors

## esolutions of the Board of Direct of Waste Management, Inc.

WHEREAS, on September 28, 2012, Waste Management, Inc. (the "Company") filed with the Securities Exchange Commission (the "SEC") an automatic shelf registration statement on Form S-3, File No. 333-184157 (the "Automatic Shelf Registration Statement"), which registered the offer and sale by the Company from time to time of common stock; senior and subordinated debt securities; preferred stock; warrants; units; and guarantees by Waste Management Holdings, Inc., a wholly-owned subsidiary of the Company ("WMHI"), with respect to debt securities, in one or more classes or series in amounts as may be determined at the time of any offering; and

**WHEREAS**, pursuant to rules and regulations promulgated by the SEC, the Automatic Shelf Registration Statement will expire, by its terms, on September 28, 2015, three years after the effective date of the Automatic Shelf Registration Statement; and

**WHEREAS**, at the time of the Board of Directors' approval of the Automatic Shelf Registration Statement, the Board of Directors also authorized the Company to offer and sell up to an aggregate of \$3,000,000,000 of Securities (the "2012 Issuance Authorization"); and

**WHEREAS**, the Company desires, and finds it in the best interests of the Company, to file a new automatic shelf registration statement on Form S-3 in order to facilitate any future offerings of securities by the Company or any selling security holders.

NOW, THEREFORE, BE IT RESOLVED, that the Company is hereby authorized to prepare and file with the SEC an automatic shelf registration statement on Form S-3 (the "New Registration Statement"), pursuant to the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder (the "Securities Act"), which New Registration Statement may cover, among other things, unsecured senior or subordinated debentures, notes or other evidences of indebtedness of the Company (collectively "Debt Securities"); shares of common stock, par value \$0.01 per share, of the Company (the "Common Stock"); warrants to purchase shares of Common Stock; shares of preferred stock in such series with such designations, powers, preferences and relative and other special rights and qualifications, limitations and restrictions as the Board of Directors may from time to time authorize; guarantees of securities by WMHI; and any units consisting of one or more of the foregoing (the Debt Securities, Common Stock, warrants, preferred stock, guarantees and units collectively referred to herein as the "Securities"), to be issued from time to time;

**RESOLVED FURTHER**, that the proper officers (as established pursuant to these resolutions) be, and they hereby are, authorized, in their sole and absolute discretion, subject to any limitations set forth in these resolutions, to cause the Company to offer and sell up to an aggregate of \$3,000,000,000 of Securities without further approval of the Board of Directors;

**RESOLVED FURTHER**, that upon the filing date of the New Registration Statement, authority to make new issuances of Securities pursuant to the 2012 Issuance Authorization shall be deemed rescinded;

**RESOLVED FURTHER,** that the proper officers and the authorized employees (as established pursuant to these resolutions) be, and each of them hereby is, authorized, in the name and on behalf of the Company, to execute and cause to be filed with the SEC any and all amendments

(including, without limitation, post-effective amendments) or supplements to the New Registration Statement and any prospectus included therein and any additional documents which such officer or employee may deem necessary or desirable with respect to the registration and offering of the Securities, and such amendments, supplements, registration statements and documents to be in such form as the officer or employee executing the same may approve, as conclusively evidenced by his execution thereof;

**RESOLVED FURTHER,** that the Chief Legal Officer of the Company be, and he hereby is, designated and appointed the agent for service of process on the Company under the Securities Act in connection with the New Registration Statement and any and all amendments and supplements thereto, with all powers incident to such appointment;

**RESOLVED FURTHER,** that the proper officers and authorized employees be and hereby are authorized and directed in the name and on behalf of the Company to take any and all action which they may deem necessary or advisable in order to effect the registration or qualification of all or part of the Securities to be registered under the Securities Act, for offer and sale under the securities or Blue Sky laws of the states of the United States of America, and in connection therewith, to execute, acknowledge, verify, deliver, file and publish all such applications, reports, issuer's covenants, resolutions, consents to service of process, or appointments of governmental officials for the purpose of receiving and accepting service of process on the laws, and to take any and all further action which they may deem necessary or advisable in order to maintain any such registration or qualification for as long as they deem the same to be in the best interest of the Company;

**RESOLVED FURTHER,** that the form of any additional resolutions required in connection with the appropriate qualification or registration of the Securities for offer and sale under such securities or Blue Sky laws, be and hereby is approved and adopted, provided the appropriate officers of the Company, on the advice of counsel, consider the adoption thereof necessary or advisable, in which case the Secretary or any Assistant Secretary of the Company is hereby directed to insert as an appendix hereto a copy of such resolutions, which shall thereupon be deemed to have been adopted by this Board of Directors with the same force and effect as if set out verbatim herein;

RESOLVED FURTHER, that any of the proper officers or authorized employees be, and each of them hereby is, authorized to approve at any time and from time to time, one or more forms of underwriting agreements (and related terms agreement) and agency agreement (and related purchase agreement) and any other agreement or agreements any of such persons may deem necessary or appropriate in connection with the arrangements for the purchase of any of the Securities, and that such persons be, and each of them hereby is, authorized to execute and deliver, in the name and on behalf of the Company, any such agreement or agreements in substantially the form approved by any of them, with such changes therein as the person executing the same may approve, as conclusively evidenced by the execution and delivery thereof, it being understood that, in the case of any terms agreement or purchase agreement referred to above, it shall not be necessary for any of the proper officers to approve any individual agreement pursuant to which Securities are to be sold if the form thereof has previously been approved as provided in this resolution;

**RESOLVED FURTHER,** that any of the proper officers be, and each of them hereby is, authorized, at any time and from time to time, on behalf of the Company, (i) to determine, within any limits that may be set by the Board of Directors, the number of shares of Common Stock, preferred stock or other equity securities to be offered and sold by the Company pursuant to the New

Registration Statement, including any shares underlying warrants or convertible Debt Securities, (ii) to authorize the reserve and issuance of such shares and (iii) to take any and all action and to do or cause to be done any and all things which may appear to any of the proper officers to be necessary or advisable in order to authorize, offer, issue, and sell such shares of Common Stock, pursuant to the New Registration Statement and the applicable purchase agreement, which action could be taken or which things could be done by the Board of Directors of the Company;

**RESOLVED FURTHER**, that any of the proper officers may, at any time and from time to time, on behalf of the Company, authorize the issuance of one or more series of Securities under the Company's indentures, within any limits that may be set by the Board of Directors, and in connection therewith establish, or, if all of the Securities of such series may not be originally issued at one time, to the extent deemed appropriate, prescribe the manner of determining, within any limitations established by any of the proper officers and subject in either case to the limitations set forth in these resolutions, all of the terms of such Securities;

**RESOLVED FURTHER,** that, in connection with any such series of Securities (but without limiting the authority hereinafter in these resolutions conferred with respect to the issuance of Securities of a series which may not all be originally issued at one time), any of the proper officers is authorized at any time or from time to time to determine the price or prices to be received by the Company in any offering or sale of Securities of such series, any public offering price or prices thereof, any discounts to be allowed or commissions to be paid to any agent, dealer or underwriter and any other terms of offering or sale of Securities of such series and to sell Securities of such series in accordance with any applicable purchase agreement or other agreement(s):

**RESOLVED FURTHER,** that, in connection with the issuance of Securities of any series which may not be originally issued at one time (except as may be inconsistent with any action taken by any of the proper officers, as hereinabove provided, in connection with such series), any of the proper officers may delegate any of its authority pursuant to these resolutions to any officer of the Company, including authority to fix the terms of such Securities;

**RESOLVED FURTHER,** that, in connection with any such series of Securities, any of the proper officers is authorized to approve any amendment, modification or supplement to the Company's indentures and that any proper officer be, and each of them hereby is, authorized to execute and deliver, in the name and on behalf of the Company, any such amendment, modification or supplement, substantially in the form approved by any proper officer;

**RESOLVED FURTHER,** that the proper officers and authorized employees be, and each of them hereby is, authorized, in the name and on behalf of the Company, to execute and deliver such other agreements (including indemnity agreements), documents, certificates, orders, requests and instruments as may be contemplated by the Company's indentures or required by the trustee thereunder, the security registrar or any other agent of the Company under such indentures in connection therewith or as may be necessary or appropriate in connection with the issuance and sale of Securities thereunder;

**RESOLVED FURTHER,** that the proper officers be, and each of them hereby is, authorized, subject to and in accordance with the Company's indentures and any action taken by any of the proper officers in connection therewith, from time to time to appoint or designate on behalf of the Company one or more security registrars, paying agents and transfer agents for each series of Securities, to rescind on behalf of the Company any such appointment or designation and to approve on behalf of

the Company any change in the location of any office through which any such security registrar, paying agent or transfer agent acts, and in connection therewith to take such action and to make, execute and deliver, or cause to be made, executed and delivered, such agreements, instruments and other documents as any such officer may deem necessary or appropriate;

RESOLVED FURTHER, that the proper officers and authorized employees be, and each of them hereby is, authorized, in the name and on behalf of the Company, to make application to such securities exchange or exchanges as the persons acting shall deem necessary or appropriate for the listing thereof of any of the Securities (including any Common Stock or preferred stock underlying any convertible Securities) and in connection therewith to appoint one or more listing agents and to prepare, or cause to be prepared, execute and file, or cause to be filed, an application or applications for such listing and any and all amendments thereto and any additional certificates, documents, letters and other instruments which any such officer may deem necessary or desirable; that such officers, or such other person as any such officer may designate in writing, be, and each of them hereby is, authorized to appear before any official or officials or before any body of any such exchange, with authority to make such changes in such application, amendments, certificates, documents, letters and other instruments and to execute and deliver such agreements relative thereto, including, without limitation, listing agreements, fee agreements and indemnity agreements relating to the use of facsimile signatures as they, or any one of them, may deem necessary or appropriate in order to comply with the requirements of any such exchange or to effect such listing;

**RESOLVED FURTHER,** that the proper officers be, and each of them hereby is, authorized, in the name and on behalf of the Company, to make application to the SEC for registration of any series of the Securities under Section 12 or other applicable section of the Securities Exchange Act of 1934, and the proper officers and authorized employees are hereby authorized to prepare or cause to be prepared, and to execute and file, or cause to be filed, with the SEC and any securities exchange an application or applications for such registration and any and all amendments thereto and any additional certificates, documents, letters and other instruments which any such officer may deem necessary or desirable;

**RESOLVED FURTHER,** that the officers and authorized employees of the Company be, and each of them hereby is, authorized to take, or cause to be taken, any and all action which any such officer may deem necessary or desirable in order to carry out the purpose and intent of the foregoing resolutions or in order to perform, or cause to be performed, the obligations of the Company under the Securities, the New Registration Statement and any indenture, purchase agreement, or other agreement referred to herein, and, in connection therewith, to make, execute and deliver, or cause to be made, executed and delivered, all agreements, undertakings, documents, certificates, orders, requests or instruments in the name and on behalf of the Company as each such officer or authorized employee may deem necessary or appropriate;

**RESOLVED FURTHER,** that for purposes of these resolutions, the term "proper officer" shall mean any or all of the Chief Executive Officer, the Chief Financial Officer, the Chief Legal Officer, the Chief Accounting Officer and the Treasurer of the Company and the term "authorized employees" shall mean either or both of the Vice President and General Counsel – Corporate and Securities and the Assistant General Counsel – Securities & Governance of the Company;

**RESOLVED FURTHER**, that the form of any additional resolutions required in connection with the foregoing resolutions be and hereby is approved and adopted, provided the proper officers of

the Company, on the advice of counsel, consider the adoption thereof necessary or advisable, in which case the Secretary or any Assistant Secretary of the Company is hereby directed to insert as an appendix hereto a copy of such resolutions, which shall, upon execution, be deemed to have been adopted by this Board of Directors with the same force and effect as if set out verbatim herein; and

**RESOLVED FURTHER**, that any officer of the Company is hereby authorized and directed to make, provide, execute, and deliver any and all statements, applications, certificates, representations, payments, notices, receipts, and other instruments and documents and take any and all other actions which in the opinion of such officer is or may be necessary or appropriate in connection with or to consummate any of the matters covered by the foregoing resolutions.

#### **GUARANTEE**

#### BY WASTE MANAGEMENT HOLDINGS, INC.

(formerly known as Waste Management, Inc.)

in Favor of The Bank of New York Mellon Trust Company, N.A., as Trustee for the Holders of Certain Debt Securities of

WASTE MANAGEMENT, INC.

\$750,000,000 3.150% Senior Notes due 2027

November 8, 2017

GUARANTEE, dated as of November 8, 2017 (as amended from time to time, this "Guarantee"), made by Waste Management Holdings, Inc. (formerly known as Waste Management, Inc.), a Delaware corporation (the "Guarantor"), in favor of The Bank of New York Mellon Trust Company, N.A., as trustee for the holders of the \$750 million aggregate principal amount of 3.150% Senior Notes due 2027 (the "Debt Securities") of Waste Management, Inc. (formerly known as USA Waste Services, Inc.), a Delaware corporation (the "Issuer").

#### WITNESSETH:

#### SECTION 1. Guarantee.

- (a) The Guarantor hereby unconditionally guarantees the punctual payment when due, whether at stated maturity, by acceleration or otherwise, of the principal of, premium, if any, and interest on the Debt Securities and any amounts and obligations due and payable with respect to the Debt Securities under Section 607 of the Indenture (as amended, modified or otherwise supplemented from time to time, the "Indenture"), dated as of September 10, 1997, between the Issuer, as successor to USA Waste Services, Inc., and The Bank of New York Mellon Trust Company, N.A. (the current successor to Texas Commerce Bank National Association), as trustee (the "Trustee") (the "Obligations"), according to the terms of the Debt Securities and the Indenture, as applicable.
- (b) It is the intention of the Guarantor that this Guarantee not constitute a fraudulent transfer or conveyance for purposes of Bankruptcy Law, the Uniform Fraudulent Conveyance Act, the Uniform Fraudulent Transfer Act or any similar federal or state law to the extent applicable to this Guarantee. To effectuate the foregoing intention, the amount guaranteed by the Guarantor under this Guarantee shall be limited to the maximum amount as will, after giving effect to such maximum amount and all other contingent and fixed liabilities of the Guarantor (other than guarantees of the Guarantor in respect of subordinated debt) that are relevant under such laws, result in the Obligations of the Guarantor under this Guarantee not constituting a fraudulent transfer or conveyance. For purposes hereof, "Bankruptcy Law" means Title 11, U.S. Code, or any similar Federal or state law for the relief of debtors.

#### SECTION 2. Guarantee Absolute.

The Guarantor guarantees that the Obligations will be paid strictly in accordance with the terms of the Indenture, regardless of any law, regulation or order now or hereafter in effect in any jurisdiction affecting any of such terms or the rights of holders of the Debt Securities with respect thereto. The liability of the Guarantor under this Guarantee shall be absolute and unconditional irrespective of:

- (i) any lack of validity or enforceability of the Indenture, the Debt Securities or any other agreement or instrument relating thereto;
- (ii) any change in the time, manner or place of payment of, or in any other term of, all or any of the Obligations, or any other amendment or waiver of or any consent to departure from the Indenture;

- (iii) any exchange, release or non-perfection of any collateral, or any release or amendment or waiver of or consent to departure from any other guaranty, for all or any of the Obligations; or
- (iv) any other circumstance which might otherwise constitute a defense available to, or a discharge of, the Issuer or a guarantor.

#### SECTION 3. Subordination.

The Guarantor covenants and agrees that its obligation to make payments of the Obligations hereunder constitutes an unsecured obligation of the Guarantor ranking (a) *pari passu* with all existing and future senior indebtedness of the Guarantor and (b) senior in right of payment to all existing and future subordinated indebtedness of the Guarantor.

#### SECTION 4. Waiver; Subrogation.

- (a) The Guarantor hereby waives notice of acceptance of this Guarantee, diligence, presentment, demand of payment, filing of claims with a court in the event of merger or bankruptcy of the Issuer, any right to require a proceeding filed first against the Issuer, protest or notice with respect to the Debt Securities or the indebtedness evidenced thereby and all demands whatsoever.
- (b) The Guarantor shall be subrogated to all rights of the Trustee or the holders of any Debt Securities against the Issuer in respect of any amounts paid to the Trustee or such holder by the Guarantor pursuant to the provisions of this Guarantee; provided, however, that the Guarantor shall not be entitled to enforce, or to receive any payments arising out of, or based upon, such right of subrogation until all Obligations shall have been paid in full.

#### SECTION 5. No Waiver, Remedies.

No failure on the part of the Trustee or any holder of the Debt Securities to exercise, and no delay in exercising, any right hereunder shall operate as a waiver thereof; nor shall any single or partial exercise of any right hereunder preclude any other or further exercise thereof or the exercise of any other right. The remedies herein provided are cumulative and not exclusive of any remedies provided by law.

#### SECTION 6. Continuing Guarantee; Transfer of Interest.

This Guarantee is a continuing guaranty and shall (i) remain in full force and effect until the earliest to occur of (A) the date, if any, on which the Guarantor shall consolidate with or merge into the Issuer or any successor thereto, (B) the date, if any, on which the Issuer or any successor thereto shall consolidate with or merge into the Guarantor, (C) payment in full of the Obligations and (D) the release by the lenders under the Third Amended and Restated Revolving Credit Agreement dated July 10, 2015, by and among the Issuer, the Guarantor (as guarantor), Bank of America, N.A., as administrative agent, J.P. Morgan Securities LLC, Merrill Lynch, Pierce, Fenner & Smith Incorporated and Barclays Bank PLC, as lead arrangers and joint book runners (or under any replacement or new principal credit facility of the Issuer) of the guarantee of the Guarantor thereunder, (ii) be binding upon the Guarantor, its successors and assigns, and (iii) inure to the benefit of and be

enforceable by any holder of Debt Securities, the Trustee, and by their respective successors, transferees, and assigns.

#### SECTION 7. Reinstatement.

This Guarantee shall continue to be effective or be reinstated, as the case may be, if at any time any payment of any of the Obligations is rescinded or must otherwise be returned by any holder of the Debt Securities or the Trustee upon the insolvency, bankruptcy or reorganization of the Issuer or otherwise, all as though such payment had not been made.

#### SECTION 8. Amendment.

The Guarantor may amend this Guarantee at any time for any purpose without the consent of the Trustee or any holder of the Debt Securities; provided, however, that if such amendment adversely affects the rights of the Trustee or any holder of the Debt Securities, the prior written consent of the Trustee shall be required.

#### SECTION 9. Governing Law.

THIS GUARANTEE SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK, WITHOUT REGARD TO THE PROVISIONS THEREOF RELATING TO CONFLICT OF LAWS.

IN WITNESS WHEREOF, the Guarantor has caused this Guarantee to be duly executed and delivered by its officer thereunto duly authorized as of the date first above written.

WASTE MANAGEMENT HOLDINGS, INC.

By: /s/ David L. Reed

David L. Reed

Vice President and Treasurer

By: /s/ Jeff Bennett

Jeff Bennett Assistant Treasurer

Signature Page to Guarantee

# Schedule of Officers' Certificates delivered pursuant to Section 301 of the Indenture dated September 10, 1997 by and between Waste Management, Inc. and The Bank of New York Mellon Trust Company, N.A., as Trustee, establishing the terms and form of Waste Management, Inc.'s Outstanding Senior Notes

Principal Amount Issued	Interest Rate (per annum)	Issue Date	Maturity Date	CUSIP	Interest Payment Dates
\$ 600 million*	7.00%	7/17/1998	7/15/2028	902917AH6	January 15; July 15
\$ 250 million*	7.375%	12/21/1999	5/15/2029	94106LAG4	May 15; November 15
\$ 500 million*	7.75%	5/21/2002	5/15/2032	94106LAN9	May 15; November 15
\$ 600 million*	6.125%	11/12/2009	11/30/2039**	94106LAV1	May 30; November 30
\$ 600 million	4.75%	6/8/2010	6/30/2020**	94106LAW9	June 30; December 30
\$ 400 million	4.60%	2/28/2011	3/1/2021**	941063AQ2	March 1; September 1
\$ 500 million	2.90%	9/12/2012	9/15/2022**	94106LAY5	March 15; September 15
\$ 350 million	3.50%	5/8/2014	5/15/2024**	94106LAZ2	May 15; November 15
\$ 600 million	3.125%	2/26/2015	3/1/2025**	94106LBA6	March 1; September 1
\$ 450 million	3.90%	2/26/2015	3/1/2035**	94106LBB4	March 1; September 1
\$ 750 million	4.10%	2/26/2015	3/1/2045**	94106LBC2	March 1; September 1
\$ 500 million	2.40%	5/16/2016	5/15/2023**	94106LBD0	May 15; November 15
\$ 750 million	3.150%	11/8/2017	11/15/2027**	94106LBE8	May 15; November 15

- \* Each of these series of Senior Notes have been partially redeemed, such that the remaining outstanding principal amount of such Senior Notes as of December 31, 2017 was \$394.9 million due 2028, \$139.2 million due 2029, \$210.4 million due 2032 and \$273.6 million due 2039.
- \*\* Each of these series of Senior Notes contain a Change of Control Offer covenant that provides, if a change of control triggering event occurs, each holder of the notes may require us to purchase all or a portion of such holder's notes at a price equal to 101% of the principal amount, plus accrued interest, if any, to the date of purchase.

This schedule is provided in accordance with Instruction 2 to Regulation S-K Item 601, as each of the series of Series Notes is governed by an instrument that differs only in the material respects set forth in the schedule above from the Officers' Certificate identified as Exhibit 4.6. Each of the series of Senior Notes identified above is also guaranteed by Waste Management Holdings, Inc. in favor of The Bank of New York Mellon Trust Company, N.A., as Trustee for the holders of Waste Management, Inc.'s Senior Notes.

#### **EMPLOYMENT AGREEMENT**

This **EMPLOYMENT AGREEMENT** (the "Agreement") is made and entered into on this December 22, 2017, by and between USA Waste-Management Resources, LLC, for itself and on behalf of Waste Management, Inc. ("WMI") and its subsidiaries and affiliated entities (collectively, the "Company") and Charles C. Boettcher (the "Executive"). Executive and the Company are referred to individually herein as a "Party" and collectively as the "Parties."

**WHEREAS**, WMI and Executive are currently parties to that certain Offer Letter dated as of August 5, 2016 (including the Severance Exhibit and Loyalty Agreement attached thereto, the "Prior Agreement");

WHEREAS, pursuant to the Prior Agreement, Executive has been employed by the Company;

**WHEREAS**, the Parties hereto desire to enter into this Agreement, which shall supersede and replace the Prior Agreement; and

**WHEREAS**, the Company desires to continue to employ Executive, and Executive desires to continue to be employed by the Company, on the terms and conditions, and for the consideration, set forth herein.

**NOW, THEREFORE**, for and in consideration of the mutual promises, covenants and obligations contained herein, the Company and Executive agree as follows:

- 1 . **Employment**. The Company shall continue to employ Executive, and Executive shall continue to be employed by the Company upon the terms and subject to the conditions set forth in this Agreement.
- 2. **Term of Employment**. The period of Executive's employment under this Agreement shall begin on December 22, 2017, and may be terminated by either party pursuant to Section 5 below. The period during which Executive is employed hereunder shall be referred to as the "Employment Period."

#### 3. **Duties and Responsibilities.**

(a) Executive is employed by USA Waste-Management Resources, LLC, an entity that provides employee services to WMI and to various subsidiaries and affiliated entities pursuant to one or more master services agreements. Executive shall perform such duties and services as may be assigned to Executive pursuant to such master services agreement. Executive's employment and the Employment Agreement may be transferred or assigned to another subsidiary or affiliated entity. Among other duties and responsibilities that may be assigned, Executive shall continue to serve as WMI's Senior Vice President and Chief Legal Officer. In such capacity, Executive shall continue to perform such duties and have the power, authority and functions consistent with such position, as may be deemed appropriate for the position and assigned to Executive from time to time by the President and Chief Executive Officer of WMI.

(b) Executive shall devote substantially all his working time, attention and energies to the business of the Company, and its affiliated entities. Executive may make and manage his personal investments (provided such investments in other activities do not violate, in any material respect, the provisions of Section 9 of this Agreement), be involved in charitable and professional activities, and, with the prior written consent of the Board of Directors of WMI (the "Board") serve on boards of other for profit entities, provided such activities do not materially interfere with the performance of his duties hereunder or create a conflict of interest (however, the Board does not typically allow officers to serve on more than one public company board at a time).

#### 4. Compensation and Benefits.

- (a) **Base Salary**. During the Employment Period, the Company shall pay Executive a base salary at the annual rate of Five Hundred Sixty Thousand Dollars (\$560,000) per year, or such rate as may be determined from time to time by the Management Development and Compensation Committee ("Compensation Committee") of the Board ("Base Salary"). Such Base Salary shall be paid in accordance with the Company's standard payroll practice for its executive officers. Base Salary shall not be reduced except by mutual agreement.
- (b) Annual Bonus. During the Employment Period, Executive will be entitled to participate in an annual incentive compensation plan of the Company, as established by the Compensation Committee from time to time. Executive's target annual bonus under this Agreement will be Seventy Five Percent (75%) of his Base Salary in effect for such year (the "Target Bonus"), and his actual annual bonus may range from 0% to 150% of Base Salary (i.e., a maximum possible bonus of two times the Target Bonus), and will be determined based upon the achievement of certain corporate financial and/or performance goals, as may be established and approved from time to time by the Compensation Committee. The annual bonus will be paid no later than March 15th of the year following the year with respect to which it was earned.
- (c) **Benefit Plans and Vacation**. Subject to the terms of such plans, Executive shall be eligible to participate in or receive benefits under any profit sharing plan, salary deferral plan, medical and dental benefits plan, life insurance plan, short-term and long-term disability plans, or any other health, welfare or fringe benefit plan, generally made available by the Company to similarly situated executive officers of WMI. The Company shall not be obligated to institute, maintain, or refrain from changing, amending, or discontinuing any benefit plan.

During the Employment Period, Executive shall be entitled to vacation each year in accordance with the Company's policies in effect from time to time, but in no event less than four (4) weeks paid vacation per calendar year. Vacation not taken in the calendar year in which it is granted cannot be carried forward to any subsequent year.

(d) **Expense Reimbursement**. The Company shall promptly reimburse Executive for the ordinary and necessary business expenses incurred by Executive in the performance of his duties hereunder in accordance with the Company's customary practices applicable to executive officers. The reimbursement of expenses during a year will not affect the expenses eligible for reimbursement in any other year. In no event shall any expense be reimbursed after the last day of the year following the year in which the expense was incurred.

- ( e ) **Other Perquisites**. Executive shall be entitled to all perquisites provided to similarly situated executive officers of WMI, as approved by the Compensation Committee, and as they may exist from time to time.
- 5 . **Termination of Employment**. Executive's employment hereunder may be terminated during the Employment Period for any reason or no reason at all. Upon any termination of employment for any reason, Executive shall immediately resign from all director memberships (including, without limitation, as a member of the Board), officer and other positions with WMI or any of its subsidiaries held by Executive at such time.

#### 6. Compensation Following Termination of Employment.

- (a) **Severance Protection Plan**. During the Employment Period, Executive shall be a participant in the Waste Management Holdings, Inc. Executive Severance Protection Plan (the "Severance Plan"). No change to the Severance Plan made after the date hereof that materially and adversely affects Executive's rights and benefits under the Severance Plan shall be applicable to Executive without Executive's express written consent. For purposes of determining Executive's entitlement to benefits under the Severance Plan or otherwise interpreting or construing Severance Plan terms (as applied to Executive), such terms shall be applied by their plain meaning and, if challenged by Executive, be subject to *de novo* review by the arbitrator described in Section 12 without any deference provided in favor of the Committee under Section 4 of the Severance Plan.
- ( b ) **Certain Definitions**. Notwithstanding anything in the Severance Plan to the contrary, for purposes of Executive's participation in the Severance Plan the following definitions shall apply:
  - ( i ) "Cause" shall mean any of the following: Executive's (A) willful or deliberate and continual refusal to perform Executive's employment duties reasonably requested by the Company after receipt of written notice to Executive of such failure to perform, specifying such failure (other than because of Executive's sickness, illness or injury) and Executive's failure to cure such nonperformance within ten (10) days of receipt of said written notice; (B) breach of any statutory or common law duty of loyalty to the Company; (C) conviction of, or plea of *nolo contendre* to, any felony; (D) willful or intentional cause of material injury to the Company, its property, or its assets; (E) disclosure or attempted disclosure to any unauthorized person(s) of the Company's proprietary or confidential information; (F) material violation or a repeated and willful violation of the Company's policies or procedures, including but not limited to, the Company's Code of Business Conduct and Ethics (or any successor policy) then in effect; or (G) breach of any of the covenants set forth in Section 9 hereof.
  - (ii) A termination for "Good Reason" means a resignation of employment by Executive by written notice ("Notice of Termination for Good Reason") given to the Chief Executive Officer of WMI within ninety (90) days after the occurrence of the Good Reason event, unless such circumstances are substantially corrected prior to the date of termination specified in the Notice of

Termination for Good Reason. For purposes of this Agreement, "Good Reason" shall mean the occurrence or failure to cause the occurrence, as the case may be, without Executive's express written consent, of any of the following circumstances: (A) the Company materially diminishes Executive's core duties or responsibility for those core duties, so as to effectively cause Executive to no longer be performing the duties of his position (except in each case in connection with the termination of Executive's employment for death, Total Disability (as defined in the Severance Plan), or Cause, or temporarily as a result of Executive's illness or other absence); (B) in the event of the Company's becoming a fifty percent or more subsidiary of any other entity, the Company materially diminishes the duties, authority or responsibilities of the person to whom Executive is required to report; (C) removal or the non-reelection of Executive from the officer position with the Company specified herein, or removal of Executive from any of his then officer positions; (D) the relocation of the geographic location of Executive's principal place of employment by more than 50 miles from the location of Executive's principal place of employment as of the date of this Agreement; (E) any material breach by the Company of any provision of this Agreement or the Severance Plan; or (F) failure of any successor to the Company (whether direct or indirect and whether by merger, acquisition, consolidation or otherwise) to assume in a writing delivered to Executive upon the assignee becoming such, the obligations of the Company under both this Agreement and the Severance Plan, resulting in a material negative change in the employment relationship.

- (iii) A "Notice of Termination for Good Reason" shall mean a notice that shall indicate the specific termination provision or provisions relied upon and shall set forth in reasonable detail the facts and circumstances claimed to provide a basis for termination for Good Reason. The Notice of Termination for Good Reason shall provide for a date of termination not less than thirty (30) nor more than sixty (60) days after the date such Notice of Termination for Good Reason is given, provided that in the case of the events set forth in Sections 6(b)(ii)(A) or (B), the date may be twenty (20) days after the giving of such notice.
- (c) Amount of Certain Severance Plan Payments. Notwithstanding Section 8(a)(iii) of the Severance Plan, in the event that Executive becomes entitled to benefits under Section 8(a) of the Severance Plan, the cash bonus payments payable to Executive pursuant to Section 8(a)(iii) of the Severance Plan shall be payable at 100% of the maximum bonus, rather than the target bonus, for which Executive would be eligible in the absence of termination of employment.
- 7. **No Other Benefits or Compensation**. Except as may be provided under this Agreement, or under the terms of any incentive compensation, employee benefit, or fringe benefit plan applicable to Executive at the time of Executive's employment termination or resignation, Executive shall have no right to receive any other compensation, or to participate in any other plan, arrangement or benefit, with respect to future periods after such employment termination or resignation.

- 8. **No Mitigation**. In the event of any termination of employment hereunder, Executive shall be under no obligation to seek other employment, and there shall be no offset against any amounts due Executive under this Agreement on account of any remuneration attributable to any subsequent employment that Executive may obtain.
- **Protective Covenants.** In reliance upon Executive's promise to abide by the various protective covenants and restrictions provided for below, the Company will continue to provide Executive with one or more of the following: (i) portions of the Company's Confidential Information (through a computer password or other means) and updates thereto; (ii) authorization to communicate with customers and prospective customers, and other business relationship providers, to help Executive develop goodwill for Company; and/or (iii) authorization to participate in specialized training related to the Company's business. Executive agrees that each of Executive's covenants in Section 9 of this Agreement (the "Protective Covenants") is reasonable and necessary to protect a legitimate business interest of the Company, and that no one restriction or obligation (such as the confidentiality obligations) would be sufficient to protect the Company's interests standing alone due to the variety of different interests involved, the difficulty of identifying and addressing a breach before irreparable harm has occurred, and the need to prevent irreparable harm. Employee understands and agrees that one purpose of this Agreement is to enhance, maintain, and not diminish, all common law and contract protections that have been in effect for the parties concerning Confidential Information that Employee has received in the past. In addition, Executive agrees that any and all rights Executive may have to incentive compensation, stock or stockrelated compensation, and/or severance compensation, whether provided for in this Agreement or elsewhere, are provided in reliance upon Executive's agreement to abide by and not challenge the validity of the Protective Covenants described below.
  - Company Property, Computer Systems, and Inventions. All written materials, records, data, and other documents prepared or possessed by Executive during Executive's employment with the Company are the Company's property. Executive understands that access to the Company's computer systems is authorized for activities that are consistent with the business purposes of the Company, that benefit the Company (consistent with Company policies and/or guidelines as they may be modified from time to time), and that do not knowingly cause harm to the Company. The use of the Company computer systems to pursue a competing enterprise, or prepare to compete with the Company, is unauthorized and strictly prohibited. All information, ideas, concepts, improvements, discoveries, and inventions that are conceived, made, developed, or acquired by Executive individually or in conjunction with others during Executive's employment (whether during business hours or not and whether on the Company's premises or not) which relate to or are derived from the Company's business, products, property, resources or services are the Company's sole and exclusive property. Executive does hereby grant and assign to the Company (or its nominee) Executive's entire right, title and interest in and to all inventions, original works of authorship, developments, concepts, improvements, designs, discoveries, and ideas of commercial use or value that either: (i) relate to the Company's business, or actual or demonstrably anticipated research or development activity of the Company; or (ii) are derived from, suggested by, or result of work performed for the Company, or were created, discovered, or conceived with the aid of Company property ("Company IP"). While employed, and as necessary thereafter, Executive will assist Company to obtain patents or copyrights on Company IP, and will

upon request execute all documents and otherwise cooperate in the Company's efforts to obtain the copyrights, patents, licenses, and other rights and interests that would be necessary to secure for the Company the complete benefit of Company IP. Executive will keep and maintain adequate and current written records of all improvements, processes, original works of authorship, derivative works, developments, concepts, ideas, discoveries, designs, know-how, trademarks, service marks, trade names, trade dress, improvements and trade secrets made by Executive (solely or jointly with others) during the term of Executive's employment with the Company. The records will be in the form of notes, sketches, drawings, and any other format that may be specified by the Company. The records will be available to and remain the sole property of the Company at all times To the extent state law where Executive resides requires it (such as under Cal. Lab. Code, § 2870, or comparable laws), Executive is notified that no provision in this Agreement requires Executive to assign any of rights to an invention for which no equipment, supplies, facility, or trade secret information of the Company was used and which was developed entirely on Executive's own time, unless (i) the invention relates at the time of conception or reduction to practice of the invention, (A) to the business of the Company, or (B) to the Company's actual or demonstrably anticipated research or development, or (ii) the invention results from any work performed by Executive for the Company. This paragraph is intended to compliment and supplement, not replace, any additional written agreement(s) the parties may have regarding Company IP. All memoranda, notes, records, files, correspondence, drawings, manuals, models, specifications, computer programs, maps, and all other documents, data, or materials of any type embodying such information, ideas, concepts, improvements, discoveries, and inventions are the Company's property. At the termination of Executive's employment with the Company for any reason, Executive shall return all of the Company's documents, data, or other Company property to the Company and shall not retain any copies of such property, in any form (tangible or intangible), without the express written consent of the Company. If the Company is unable because of Executive's mental or physical incapacity or for any other reason to secure Executive's signature to apply for or to pursue any application for any United States or foreign letters patents or copyrights covering inventions or other rights assigned to the Company hereunder, then Executive hereby irrevocably designates and appoints the Company and its duly authorized officers and agents as Executive's agent and attorney-in-fact, to act for and in Executive's behalf and stead to execute and file any such applications and to do all other lawfully permitted acts or sign any documents to further the prosecution and issuance of letters patents and copyrights with the same legal force and effect as if executed by Executive. By Executive's signature on this Agreement, Executive designates and appoints each executive officer of the Company as his/her agent and attorney-in-fact to execute any such papers on his/her behalf, and to take any and all actions the Company considers necessary to protect its rights and interests in any Company IP. Executive hereby waives and quitclaims to the Company any and all claims, of any nature whatsoever, which Executive now or may hereafter have for infringement of any patents or copyrights resulting from any such application assigned hereunder to the Company. Executive further agrees that he/she shall not, at any time hereafter, dispute, contest, or aid or assist others in disputing or contesting, either directly or indirectly, Company's exclusive right, title, and interest in and to the Company IP and other proprietary rights therein claimed by the Company.

(b) Confidential Information; Non-Disclosure. Executive acknowledges that the business of the Company is highly competitive and that Executive's position is one where the Company will provide Executive with access to "Confidential Information" relating to the business of the Company and its affiliates. Executive further acknowledges that protection of such Confidential Information against unauthorized disclosure and use is of critical importance to the Company and its affiliates in maintaining their competitive advantage. Executive understands that it shall be his responsibility to handle and use "Confidential Information" in a manner that does not violate Company policies or knowingly cause harm to the Company. Accordingly, during employment and for so long thereafter as the information remains qualified as "Confidential Information," Executive agrees to maintain the confidentiality of "Confidential Information" and not to engage in any unauthorized use or disclosure of such information.

For purposes of this Agreement, "Confidential Information" refers to an item of information, or a compilation of information, in any form (tangible or intangible), related to the Company's business that (i) the Company has not intentionally made public or authorized public disclosure of, and (ii) is not generally known to the public or to other persons who might obtain value or competitive advantage from its disclosure or use, through proper means. Confidential Information will not lose its protected status under this Agreement, if it becomes known to the public or to other persons through improper means such as the unauthorized use or disclosure of the information by Executive or another person. Confidential Information includes, but is not limited to: (i) Market Business Strategy (MBS) data, the Company Transformation Change processes, MBS Plans, Business Improvement Process (BIP), Fleet Planning, Public Sector Pro-formas, Letters of Intent, Route Manager and District Manager Training Programs, internal information regarding acquisition targets, divestiture targets, and mergers, Real Estate Market Area Analysis Mapping and Real Estate Owned and Leased Property Data and Reporting; (ii) Company's business plans and analysis, customer and prospect lists; compilations of names and other individualized information concerning customers, investors, and business affiliates (such as contact name, service provided, pricing for that customer, type and amount of services used, credit and financial data, and/or other information relating to the Company's relationship with that customer); pricing strategies and price curves; marketing plans and strategies, research and development data, buying practices, human resource information and personnel files (including salaries of management level personnel), financial data, operational data, methods, techniques, technical data, know-how, innovations, computer programs, un-patented inventions, and trade secrets; and (iii) information about the business affairs of third parties (including, but not limited to, clients and acquisition targets) that such third parties provide to Company in confidence.

Confidential Information will include trade secrets, but an item of Confidential Information need not qualify as a trade secret to be protected by this Agreement. Company's confidential exchange of information with a third party for business purposes will not remove it from protection under this Agreement. Executive acknowledges that items of Confidential Information are Company's valuable assets and have economic value, actual or potential, because they are not generally known by the public or others who

could use them to their own economic benefit and/or to the competitive disadvantage of the Company, and thus, should be treated as Company's trade secrets.

(c) Unfair Competition Restrictions. Ancillary to the rights provided to Executive following employment termination, the Company's provision of Confidential Information, specialized training, or goodwill support to Executive, and Executive's agreements regarding the use of same, and in order to protect the value of any restricted stock, stock options, or other stock-related compensation, training, goodwill support and/or the Confidential Information described above, the Company and Executive agree to the following provisions against unfair competition. Executive agrees that for a period of two (2) years following the termination of employment for any reason ("Restricted Term"), Executive will not, directly or indirectly, for Executive or for others, anywhere in the United States (including all parishes in Louisiana, and Puerto Rico), Canada, the United Kingdom, or the People's Republic of China (the "Restricted Area") do the following, unless expressly authorized to do so in writing by the Chief Executive Officer of WMI:

Engage in, or assist any person, entity, or business engaged in, the selling or providing of products or services that would displace the products or services that (i) the Company is currently in the business of providing and was in the business of providing, or was planning to be in the business of providing, at the time Executive was employed with the Company, and (ii) that Executive had involvement in or received Confidential Information about in the course of employment; the foregoing is expressly understood to include, without limitation, the business of the collection, transfer, recycling and resource recovery, or disposal of solid waste, hazardous or other waste, including the operation of waste-to-energy facilities.

During the Restricted Term, Executive cannot engage in any of the enumerated prohibited activities in the Restricted Area by means of telephone, telecommunications, satellite communications, correspondence, or other contact from outside the Restricted Area. Executive further understands that the foregoing restrictions may limit his ability to engage in certain businesses during the Restricted Term, but acknowledges that these restrictions are necessary to protect the Confidential Information the Company has provided to Executive.

A failure to comply with the foregoing restrictions will create a presumption that Executive is engaging in unfair competition. Executive agrees that this Section defining unfair competition with the Company does not prevent Executive from using and offering the skills that Executive possessed prior to receiving access to Confidential Information, confidential training, and knowledge from the Company. This Agreement creates an advance approval process, and nothing herein is intended, or will be construed as, a general restriction against the pursuit of lawful employment in violation of any controlling state or federal laws. Executive shall be permitted to engage in activities that would otherwise be prohibited by this covenant if such activities are determined in the sole discretion of the Chief Executive Officer of WMI in writing to be of no material threat to the legitimate business interests of the Company.

Notwithstanding anything to the contrary, to the extent Executive is and remains an attorney actively and lawfully engaged in the practice of law, and Executive's employment with the Company is terminated, nothing in this Agreement will be deemed to limit Executive's ability to practice law in contravention of Model Rules of Professional Conduct, Rule 5.6(a), or any equivalent state rule, which applies to Executive and governs restrictions on the practice of law in the state(s) where Executive is licensed to practice. This paragraph applies only to, and exclusively to, the practice of law as a licensed attorney.

- (d) **Non-Solicitation of Customers**. For the Restricted Term, Executive will not, in person or through the direction or control of others, call on, service, or solicit competing business from a Covered Customer, or induce or encourage any such Covered Customer or other source of ongoing business to stop doing business with Company. A "Covered Customer" is any Company customer (person or entity) for which Executive had business-related contact or dealings with, or received Confidential Information about, in the two (2) year period preceding the termination of Executive's employment with the Company for any reason.
- (e) **Non-Solicitation of Employees**. During Executive's employment, and for the Restricted Term, Executive will not, in person or through the direction or control of others, call on, solicit, encourage, or induce any other employee or officer of the Company or its affiliates whom Executive had contact with, knowledge of, or association within the course of employment with the Company to terminate his or her employment, and will not assist any other person or entity in such a solicitation.
- (f) Non-Disparagement. During Executive's employment, and for the Restricted Term, Executive covenants and agrees that Executive shall not engage in any pattern of conduct that involves the making or publishing of written or oral statements or remarks (including, without limitation, the repetition or distribution of derogatory rumors, allegations, negative reports or comments) which are disparaging, deleterious or damaging to the integrity, reputation or good will of the Company, its management, or of management of corporations affiliated with the Company.
- Protected Communications. Nothing in this Agreement (particularly nothing in Paragraphs 9(b) and (f) regarding non-disclosure and non-disparagement) prohibits Executive from reporting an event that Executive reasonably and in good faith believes is a violation of law to the relevant law enforcement agency, requires advance notice or approval from the Company for such a report, or prohibits cooperating in an investigation conducted by such a government agency. In this context, a disclosure of trade secret or confidential information within the limitations permitted by the 2016 Defend Trade Secrets Act ("DTSA") is allowed. The DTSA provides that (1) no individual will be held criminally or civilly liable under Federal or State trade secret law for the disclosure of a trade secret (as defined in the Economic Espionage Act) that: (a) is made in confidence to a Federal, State, or local government official, either directly or indirectly, or to an attorney; and made solely for the purpose of reporting or investigating a suspected violation of law; or, (b) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal so that it is not made public; and, (2) an individual who pursues a lawsuit for retaliation by an employer for reporting a suspected

violation of the law may disclose the trade secret to the attorney of the individual and use the trade secret information in the court proceeding, if the individual files any document containing the trade secret under seal, and does not disclose the trade secret, except as permitted by court order. In addition, nothing herein prohibits Executive from engaging in a disclosure of information that is required by law (such as by court order or subpoena).

#### 10. Enforcement of Protective Covenants.

(a) **Termination of Employment and Forfeiture of Compensation**. Executive agrees that any breach by Executive of any of the Protective Covenants set forth in Section 9 during Executive's employment with the Company shall be grounds for immediate employment termination of Executive for Cause, which shall be in addition to and not exclusive of any and all other rights and remedies the Company may have against Executive.

In the event that Executive violates one of the Protective Covenants, (i) the Company shall have the right to immediately cease making any payments that it may otherwise owe to Executive, if any, under this Agreement, the Severance Plan or otherwise (ii) Executive will forfeit any remaining rights to payments or continuing benefits provided by this Agreement, if there are any, under this Agreement, the Severance Plan or otherwise and (iii) upon the Company's demand, Executive will refund to the Company any severance benefits or amounts, plus interest, previously paid by Company to Executive pursuant to this Agreement, the Severance Plan or otherwise, less one thousand dollars (\$1,000) which Executive shall be entitled to retain as fully sufficient consideration to support and maintain in effect any contractual obligations that Executive has to the Company prior to the refund, including the Release as defined herein.

- Covenant set forth in Section 9 hereof will cause irreparable damage to the Company with respect to which the Company's remedy at law for damages will be inadequate. Therefore, in the event of any breach or anticipatory breach of a Protective Covenant by Executive, Executive and the Company agree that the Company shall be entitled to seek the following particular forms of relief, in addition to remedies otherwise available to it at law or equity: (i) injunctions, both preliminary and permanent, enjoining or restraining such breach or anticipatory breach and Executive hereby consents to the issuance thereof forthwith and without bond by any court of competent jurisdiction; and (ii) recovery of all reasonable sums expended and costs, including reasonable attorney's fees, incurred by the Company to pursue the remedies provided for in this Section of the Agreement to enforce the Protective Covenants.
- (c) Reformation of Covenants. The Protective Covenants set forth in Section 9 constitute a series of separate but ancillary covenants, one for each applicable State in the United States and the District of Columbia, and one for each applicable foreign country. If in any judicial proceeding, a court shall hold that any of the Protective Covenants set forth in Section 9 exceed the time, geographic, or occupational limitations permitted by applicable laws, Executive and the Company agree that such provisions shall and are hereby reformed to provide for a restriction with the maximum time, geographic, or occupational limitations permitted by such laws to protect the Company's business interests. Further, in the event a court shall hold unenforceable any of the separate covenants deemed included herein, then such unenforceable covenant or covenants shall be deemed eliminated from the provisions of this Agreement for the purpose of such proceeding

to the extent necessary to permit the remaining separate covenants to be enforced in such proceeding.

(d) Survival. Executive and the Company further agree that the protective Covenants set forth in Section 9 shall each be construed as a separate agreement independent of any other provisions of this Agreement, and the existence of any claim or cause of action by Executive against the Company whether predicated on this Agreement or otherwise, shall not constitute a defense to the enforcement by the Company of any of the Protective Covenants. The Protective Covenants will survive the termination of Executive's employment with Company, regardless of the cause of the termination. If Executive violates one of the Protective Covenants for which there is a specific time limitation, the time period for that restriction will be extended by one day for each day Executive violates it, up to a maximum extension equal to the length of time prescribed for the restriction, so as to give Company the full benefit of the bargained-for length of forbearance. If Executive becomes employed with an affiliate of the Company without signing a new agreement, the affiliate will step into Company's position under this Agreement, and will be entitled to the same protections and enforcement rights as the Company.

#### 11. **Indemnification**.

- (a) **Indemnification Agreement**. In the event that Executive and WMI (or an affiliate of WMI) are party to a separate indemnification agreement (the "Indemnification Agreement") that is in effect at such time, the terms of such Indemnification Agreement shall govern Executive's and the Company's rights and obligations relating to indemnification, except to the extent the provisions of Section 11(b) are materially more favorable to Executive than the Indemnification Agreement. In the event no such Indemnification Agreement is in effect or the terms of Section 11(b) are materially more favorable to Executive, the provisions of Section 11(b) shall apply.
- (b) Other Rights to Indemnification. Company shall indemnify and hold harmless Executive to the fullest extent permitted by Delaware law for any action or inaction of Executive while serving as an officer and director of the Company or, at the Company's request, as an officer or director of any other entity or as a fiduciary of any benefit plan. This provision includes the obligation and undertaking of Executive to reimburse the Company for any fees advanced by the Company on behalf of Executive should it later be determined that Executive was not entitled to have such fees advanced by the Company under Delaware law. The Company shall cover Executive under directors and officers' liability insurance both during and, while potential liability exists, after the Employment Period in the same amount and to the same extent as the Company covers its other officers and directors.
- 12. **Arbitration**. The parties agree that any dispute relating to this Agreement, or to the breach of this Agreement, arising between Executive and the Company shall be settled by arbitration in accordance with the Federal Arbitration Act and the commercial arbitration rules of the American Arbitration Association ("AAA"), or any other mutually agreed upon arbitration service; provided, however, that temporary and preliminary injunctive relief to enforce the covenants contained in Section 9 of this Agreement, and related expedited discovery, may be pursued in a court of law to provide temporary injunctive relief pending a final determination of all issues of final relief through arbitration. The arbitration proceeding, including the rendering of

an award, shall take place in Houston, Texas, and shall be administered by the AAA (or any other mutually agreed upon arbitration service). The arbitrator shall be jointly selected by the Company and Executive within thirty (30) days of the notice of dispute, or if the parties cannot agree, in accordance with the commercial arbitration rules of the AAA (or any other mutually agreed upon arbitration service). All fees and expenses associated with the arbitration shall be borne equally by Executive and the Company during the arbitration, pending final decision by the arbitrator as to who should bear fees, unless otherwise ordered by the arbitrator. The arbitrator shall not be authorized to create a cause of action or remedy not recognized by applicable state or federal law. The arbitrator shall be authorized to award final injunctive relief. The award of the arbitrator shall be final and binding upon the parties without appeal or review, except as permitted by the arbitration laws of the State of Texas. The award, inclusive of any and all injunctive relief provided for therein, shall be enforceable through a court of law upon motion of either party.

- 13. **Withholding of Taxes**. The Company may withhold from any compensation and benefits payable under this Agreement all applicable federal, state, local, or other taxes.
- 14. **Source of Payments**. All payments provided under this Agreement, other than payments made pursuant to a plan which provides otherwise, shall be paid from the general funds of the Company, and no special or separate fund shall be established, and no other segregation of assets made, to assure payment. Executive shall have no right, title or interest whatever in or to any investments which the Company may make to aid the Company in meeting its obligations hereunder. To the extent that any person acquires a right to receive payments from the Company hereunder, such right shall be no greater than the right of an unsecured creditor of the Company.
- 15. **Assignment**. This Agreement shall inure to the benefit of the Company, its subsidiaries, affiliates, successors, and assigns. Except as otherwise provided in this Agreement, this Agreement shall inure to the benefit of Executive, and Executive's heirs, representatives, and successors. This Agreement shall not be assignable by Executive (but any payments due hereunder which would be payable at a time after Executive's death shall be paid to Executive's estate).
- 1 6 . Entire Agreement; Amendment . This Agreement shall supersede any and all existing oral or written agreements, representations, or warranties between Executive and the Company or any of its subsidiaries or affiliated entities relating to the terms of Executive's employment by the Company; provided, however, that if all or any material part of the Protective Covenants provided for in this Agreement are deemed void or unenforceable, then any prior agreement between the parties covering the same or substantially similar restrictions on Executive (such as, but not limited to the Company's prior Employment Agreement(s) or Loyalty and Confidentiality Agreement with Executive) shall resume effect to the extent necessary to maintain protection of the Company's legitimate protectable interests covered by the Protective Covenants. This Agreement may not be amended except by a written agreement signed by both parties. No material term or obligation of a party may be waived except through written agreement by the party with the authority to enforce such right or obligation.
- $1\ 7$ . Governing Law and Venue. This Agreement shall be governed by and construed in accordance with the laws of the State of Texas applicable to agreements made and to be performed in that State, without regard to its conflict of laws provisions. The parties agree that any legal action arising from this Agreement that is not required to be resolved through arbitration

pursuant to Section 12 must be pursued in a court of competent jurisdiction that is located in Houston,

1 8 . **Notices**. Any notice, consent, request, or other communication made or given in connection with this Agreement shall be in writing and shall be deemed to have been duly given when delivered or mailed by registered or certified mail, return receipt requested, or by facsimile or by hand delivery, to those listed below at their following respective addresses or at such other address as each may specify by notice to the others:

To the Company: USA Waste-Management Resources, LLC

1001 Fannin

Houston, Texas 77002

Attention: Chief People Officer

To Executive: At the address for Executive on file with the Company.

#### 19. **Miscellaneous**.

- (a) **Waiver**. The failure of a party to insist upon strict adherence to any term of this Agreement on any occasion shall not be considered a waiver thereof or deprive that party of the right thereafter to insist upon strict adherence to that term or any other term of this Agreement.
- (b) Severability. Subject to Section 10 hereof, if any term or provision of this Agreement is declared illegal or unenforceable by any court of competent jurisdiction and cannot be modified to be enforceable, such term or provision shall immediately become null and void, leaving the remainder of this Agreement in full force and effect.
- (c) **Headings**. Section headings are used herein for convenience of reference only and shall not affect the meaning of any provision of this Agreement.
- (d) **Rules of Construction**. Whenever the context so requires, the use of the singular shall be deemed to include the plural and vice versa.
- (e) **Counterparts**. This Agreement may be executed in any number of counterparts, each of which so executed shall be deemed to be an original, and such counterparts will together constitute but one Agreement.

#### 20. Section 409A.

(a) Compliance and Exemption. It is intended that the payments and benefits provided under this Agreement shall be exempt from or comply with the application of the requirements of Section 409A of the Internal Revenue Code of 1986, as amended ("Section 409A"). This Agreement shall be construed, administered and governed in a manner that affects such intent. Specifically, any taxable benefits or payments provided under this Agreement are deemed to be separate payments that qualify for the "short-term deferral" exclusion from Section 409A to the maximum extent possible, and to the extent they do not so qualify, are intended to qualify for the "involuntary separation pay" exclusion from Section 409A, to the maximum extent

possible. To the extent that none of these exceptions (or any other available exception) applies, then notwithstanding anything contained herein to the contrary, and to the extent required to comply with Section 409A, if Executive is a "specified employee," as determined by WMI, as of his Termination Date, then all amounts due under this Agreement that constitute a "deferral of compensation" within the meaning of Section 409A, that are provided as a result of a "separation from service" within the meaning of Section 409A, and that would otherwise be paid or provided during the first six months following the Termination Date, shall be accumulated through and paid or provided on the first business day that is more than six months after the date of the Termination Date (or, if Executive dies during such six-month period, within 90 days after Executive's death).

- Reimbursements and In-Kind Benefits. All reimbursements and in kind benefits provided under this Agreement shall be made or provided in accordance with the requirements of Section 409A, including, where applicable, the requirement that (i) any reimbursement shall be for expenses incurred during Executive's lifetime (or during a shorter period of time specified in the Agreement), (ii) the amount of expenses eligible for reimbursement, or in kind benefits provided, during a calendar year may not affect the expenses eligible for reimbursement, or in kind benefits to be provided, in any other calendar year, (iii) the reimbursement of an eligible expense will be made on or before the last day of the calendar year following the year in which the expense is incurred, and (iv) the right to reimbursement or in kind benefits is not subject to liquidation or exchange for another benefit.
- (c) Six Month Delay Period. Notwithstanding any provision to the contrary in this Agreement, if Executive is determined by WMI on the date of Executive's separation from service to be a "specified employee" within the meaning of Section 409A(a)(2)(B), and the stock of the Company is publicly traded, then the payments specified as being subject to this Section 20 shall not be made or provided to the extent required by Section 409A until the later of (A) the payment date set forth in this Agreement or (B) the date that is the earliest of (i) the expiration of the six-month period measured from the date of Executive's separation from service within the meaning of Section 409A, (ii) the date of Executive's death, or (iii) such other date that complies with, or is exempt from, the requirements of Section 409A (the "Delay Period"). Payments subject to the Delay Period shall be paid to Executive without interest for such delay in payment. All other payments and benefits due under this Agreement that are not subject to the foregoing shall be paid or provided in accordance with the normal payment dates specified for them herein.
- (d) **Substitution**. To the extent any payment or benefit payable under this Agreement is considered a substitution of previously forfeited or relinquished deferred compensation under Treas. Reg. Section 1.409A-3(f), the payment or benefit payable under this Agreement shall be paid at the same time and on the same schedule that the original deferred compensation would have been paid, unless an exemption applies.

[Signature Page Follows]

IN WITNESS WHEREOF, this Agreement is EXECUTED as of the date first set forth above and effective as set forth therein.

#### **CHARLES C. BOETTCHER**

("Executive")

/s/ Charles C. Boettcher

Charles C. Boettcher

[Signature Page to Employment Agreement]

IN WITNESS WHEREOF, this Agreement is EXECUTED as of the date first set forth above and effective as set forth therein.

USA WASTE-MANAGEMENT RESOURCES, LLC (The "Company")

By: /s/ Courtney A. Tippy

Courtney A. Tippy
Vice President and Secretary

[Signature Page to Employment Agreement]

## 2017 Long Term Incentive Compensation Award Agreement

(Mid-Year Award) under the

## Waste Management, Inc. 2014 Stock Incentive Plan

This Award Agreement (this "Agreement") is entered into effective as of [GrantDate] (the "Grant Date"), by and between Waste Management, Inc., a Delaware corporation (the "Company") (together with its Subsidiaries and Affiliates, "WM"), and you ("Employee"). At all times, the Awards under this Agreement are subject to the terms and conditions of the Waste Management, Inc. 2014 Stock Incentive Plan (the "Plan"), this Agreement, and all applicable administrative interpretations and practices. A copy of the Plan is available online at <a href="http://visor.wm.com">http://visor.wm.com</a> under the Legal tab. Once there, scroll to the bottom of the Legal page, then choose Documents, Stock Incentive Plan and choose "2014 Stock Incentive Plan." A description of the Plan appears on the same page under "2014 Stock Incentive Plan Prospectus" (the "Prospectus"). Please also see the Company's Form 10-K included in its most recent Annual Report, available on the Investor Relations page of <a href="https://www.wm.com">www.wm.com</a> under Financial Reporting – Annual Reports, for information about the Company. By executing this Agreement, you consent to receipt of the Plan, the Prospectus, and the Annual Reports by electronic access as set forth in this paragraph.

You must execute this Agreement in full, online in accordance with the instructions below, prior to [AcceptByDate], in order for this Agreement to become effective. If you do not execute this Agreement by correctly following the instructions below, your Awards may be cancelled.

#### Important Instructions for Executing this Agreement

If you have previously received a stock-based incentive award, simply log on to <a href="www.mywmtotalrewards.com">www.mywmtotalrewards.com</a> using your My WM Total Rewards user ID and password. If you have forgotten your user ID or password, there are instructions on the site to help you. Under the "My Compensation" section, click on the link to view your grants at the website maintained by the third party stock administrator appointed by the Company. Follow the online instructions and complete all of the steps required to accept the award.

If you are a new Plan participant, you must open a Limited Individual Investor Account (LIIA) before you can accept your awards. This account is separate from any other brokerage account you may have at the third party stock administrator. To open your LIIA, log on to <a href="www.mywmtotalrewards.com">www.mywmtotalrewards.com</a> using your My WM Total Rewards user ID and password. If you have forgotten your user ID or password, there are instructions on the site to help you. Under the "My Compensation" section, click on the link to the secure website maintained by the third party stock administrator appointed by the Company. You may also log in directly at <a href="www.benefits.ml.com">www.benefits.ml.com</a>. Once logged in, follow the prompts to "Open a Brokerage Account". When you have successfully created your account, follow the online instructions and complete all of the steps required to accept the award.

#### **Restricted Stock Units**

<u>RSU Grant</u>. The Company grants to Employee the number of Restricted Stock Units ("*RSUs*") provided in the Notice of Long Term Incentive Award dated [GrantDate] (the "*Notice*"). RSUs are notational units of measurement denominated in shares of common stock of the Company, \$.01 par value ("*Common Stock*"). Each RSU represents a hypothetical share of Common Stock. Upon your timely execution of this Agreement, WM will credit your RSUs to an unfunded bookkeeping account for you.

- Vesting of RSUs. The RSUs granted by this Agreement ("RSU Awards") vest entirely on the third (3<sup>rd</sup>) anniversary of the Grant Date, unless earlier vested or forfeited under this Agreement. The date of vesting is the Vesting Date.
   Except as otherwise provided herein, your RSUs generally vest only if you are continuously employed from the Grant Date to the Vesting Date, subject to the exceptions discussed below. The period of time from the Grant Date (inclusive) to the Vesting Date is the Restriction Period.
- 3. <u>Timing and Form of Payment of RSU Award</u>. Upon vesting, each RSU is converted to one share of Common Stock, free of any restrictions. WM will deliver the shares of Common Stock to you and make payment of the corresponding Dividend Equivalents as soon as administratively feasible (and no later than 74 days) following the Vesting Date.

#### **Important Award Details**

Your RSU Awards under this Agreement are subject to important terms and conditions set forth below. Please read them carefully and seek advice from your own legal and tax advisors before executing this Agreement.

- 1. <u>Death or Disability</u>. Upon Employee's death or disability (as determined by the Committee and within the meaning of Section 409A of the Internal Revenue Code of 1986, as amended, and the Treasury Regulations issued thereunder ("Section 409A") and specifically Section 409A (a)(2)(C) ("Disability")), Employee (or in the case of Employee's death, Employee's beneficiary) shall be entitled to immediate vesting in full of all RSUs under this Agreement (and related unpaid Dividend Equivalents attributable to the time period from the Grant Date to the time of such immediate vesting), which shall be issued and paid within 74 days following the date of such death or Disability, as applicable.
- 2. Retirement; Involuntary Termination of Employment Without Cause by WM.
  - a. RSU Award. Upon Employee's Retirement (as defined below) or an involuntary Termination of Employment by WM without Cause, Employee shall be entitled to the amount of RSUs and any related Dividend Equivalents on such RSUs through the Vesting Date that Employee would have been entitled to under this Agreement if Employee had remained employed until the Vesting Date multiplied by the fraction which has as its numerator the total number of days that Employee was employed by WM during the period beginning on the Grant Date and ending on the date of Termination of Employment and has as its denominator 1096, which shall be issued and paid no later than 74 days following the normal Vesting Date (i.e. the three-year anniversary of the Grant Date).
  - b. In the event Employee is employed by a subsidiary of the Company that is sold by the Company in a transaction (i) that would not constitute a Change in Control of the Company within the meaning of paragraph 5.d.i. below, but (ii) that would constitute a Change in Control of the subsidiary within the meaning of paragraph 5.d.i. with the subsidiary substituted for Company thereunder, such transaction shall be deemed to constitute an involuntary Termination of Employment by WM without Cause for purposes of this paragraph 2 as of the effective date of such Transaction.
  - c. The following terms shall have the meanings set forth below for purposes of this Agreement:
    - i. Retirement means Termination of Employment due to the voluntary resignation of employment by Employee, after Employee (1) has reached age 55 or greater; (2) has a sum of age plus years of Service (as defined in paragraph ii. below) with WM equal to 65 or greater; and (3) has completed at least 5 consecutive full years of Service with WM during the 5 year period immediately preceding the resignation.
    - ii. **Service** is measured from Employee's original date of hire by WM, except as provided below. In the case of a break of employment by Employee from WM of one year or more in length, Employee's service before the break of employment is not considered Service. Service with an entity acquired by WM is

considered Service so long as Employee remained continuously employed with such predecessor company(ies) and WM. In the case of a break of employment between a predecessor company and WM of any length, Employee's Service shall be measured from the original date of hire by WM and shall not include any service with any predecessor company.

- 3. <u>Termination of Employment for Other Reasons</u>. Except as provided in paragraphs 1 through 2 above and 5 below, Employee must be an employee of WM continuously from the Grant Date through the close of business on last day of the Restriction Period to be entitled to receive payment of any RSU Awards. Upon Termination of Employment on or before the lapse of the Restriction Period, for any reason other than termination that would qualify Employee for payout under paragraphs 1 through 2 above and 5 below, Employee shall immediately forfeit all unvested RSUs and any related Dividend Equivalents, without the payment of any consideration by WM.
- 4. Repayment of RSU Award in the Event of Misconduct.
  - a. Overriding any other inconsistent terms of this Agreement, if the Committee, in its sole discretion, determines that Employee either engaged in or benefited from Misconduct (as defined below), then, to the fullest extent permitted by law, Employee shall refund and pay to WM any Common Stock and/or amounts (including Dividend Equivalents), plus interest, received by Employee under this Agreement. *Misconduct* means any act or failure to act by any employee of WM that (i) caused or was intended to cause a violation of WM's policies or the WM code of conduct, generally accepted accounting principles or any applicable laws in effect at the time of the act or failure to act in question and that (i) materially increased the value of the payment or RSU Award received by Employee under this Agreement. The Committee may, in its sole discretion, delegate the determination of Misconduct to an independent third party (either a law firm or an accounting firm, hereinafter referred to as *Independent Third Party*) appointed by the Committee.
  - b. Following a determination of Misconduct by Employee, Employee may dispute such determination pursuant to binding arbitration as set forth in paragraph 18 under "General Terms" provided, however, that if Employee is determined to have benefited from, but not engaged in, Misconduct, Employee will have no right to dispute such determination and such determination shall be conclusive and binding.
  - c. WM must initiate recovery pursuant to this paragraph 4 by the earliest of (i) one year after discovery of alleged Misconduct, or (ii) the second anniversary of Employee's Termination of Employment.
  - d. The provisions of this paragraph 4, without any implication as to any other provision of this Agreement, shall survive the expiration or termination of this Agreement and Employee's employment.
- 5. Acceleration of Vesting upon Change in Control. If there is Change in Control prior to the close of the Restriction Period, all outstanding but unvested RSUs will be immediately vested in full and, along with all associated Dividend Equivalents up to the original Vesting Date, will be due and payable within 74 days following such original Vesting Date, unless the successor entity assumes all RSU Awards granted under the Plan and converts the awards to equivalent grants in the successor effective as of the Change in Control. If the successor entity so assumes and converts all RSU Awards granted under the Plan, upon Employee's involuntary Termination of Employment without Cause during the Window Period or upon Employee's Retirement, death or Disability, then all outstanding but unvested RSUs (or the equivalent grant in the successor entity) and the associated Dividend Equivalents through such date will become immediately vested in full as of such event and paid (i) in the case of death or Disability, within 74 days of such time or (ii) in the case of Retirement or involuntary Termination of Employment without Cause, within 74 days following the original Vesting Date.
  - a. The following terms shall have the meanings set forth below for purposes of this Agreement:
    - i. *Change in Control* means the first to occur of any of the following:

- any Person, or Persons acting as a group (within the meaning of Section 409A), acquires, directly or indirectly, including by purchase, merger, consolidation or otherwise, ownership of securities of the Company that, together with securities held by such Person or Persons, represents fifty percent (50%) or more of the total voting power or total fair market value of the Company's then outstanding securities;
- any Person, or Persons acting as a group (within the meaning of Section 409A), acquires (or has
  acquired during the 12-month period ending on the date of the most recent acquisition by such
  Person or Persons), directly or indirectly, including by purchase, merger, consolidation or otherwise,
  ownership of securities of the Company that represents thirty percent (30%) or more of the total
  voting power of the Company's then outstanding voting securities;
- 3. the following individuals cease for any reason to constitute a majority of the number of directors then serving: individuals who, at the Grant Date, constitute the Board of Directors of the Company (the "Board") and any new director (other than a director whose initial assumption of office is in connection with an actual or threatened election contest, including but not limited to a consent solicitation, relating to the election of directors of the Company) whose appointment or election by the Board or nomination for election by the Company's stockholders was approved or recommended by a vote of at least a majority of the directors before the date of such appointment or election or whose appointment, election or nomination for election was previously so approved or recommended; or
- 4. the stockholders of the Company approve a plan of complete liquidation of the Company and such liquidation is actually commenced or there is consummated an agreement for the sale or disposition by the Company of all or substantially all of the Company's assets (or any transaction having a similar effect), other than a sale or disposition by the Company of all or substantially all of the Company's assets to an entity, at least fifty percent (50%) of the combined voting power of the voting securities of which are owned by stockholders of the Company in substantially the same proportions as their ownership of the Company immediately prior to such sale. For purposes hereof, a "sale or other disposition by the Company of all or substantially all of the Company's assets" will not be deemed to have occurred if the sale involves assets having a total gross fair market value of less than forty percent (40%) of the total gross fair market value of all assets of the Company immediately prior to such sale.

provided, in each of cases 1 through 4, that in the event the award or portion of the award is determined to constitute a non-exempt "deferral of compensation" pursuant to Section 409A, to the extent necessary to avoid the imposition of any penalties or additional tax under Section 409A, with respect to such award or portion of award the Change of Control event must also constitute a "change in the ownership of a corporation," a "change in the effective control of a corporation," or a "change in the ownership of a substantial portion of a corporation's assets," in each case, within the meaning of Section 409A.

For purposes of this definition, the following terms shall have the following meanings:

- (A) "Exchange Act" means the Securities and Exchange Act of 1934, as amended from time to time; and
- (B) "Person" shall have the meaning set forth in Section 3(a)(9) of the Exchange Act, as modified and used in Sections 13(d) and 14(d) thereof, except that such term shall not include (1) the Company, (2) a trustee or other fiduciary holding securities under an employee benefit plan of the Company, (3) an employee benefit plan of the Company, (4) an underwriter temporarily holding securities pursuant to an offering of such securities or (5) a corporation

owned, directly or indirectly, by the stockholders of the Company in substantially the same proportions as their ownership of shares of Common Stock.

- ii. Termination of Employment means the termination of Employee's employment or other service relationship with WM as determined by the Committee. Temporary absences from employment because of illness, vacation or leave of absence and transfers among the Company and its Subsidiaries and Affiliates will not be considered a Termination of Employment. Any question as to whether and when there has been a Termination of Employment, and the cause of such termination, shall be determined by and in the sole discretion of the Committee and such determination shall be final.
- iii. *Cause* means any of the following: (1) willful or deliberate and continual refusal to materially perform Employee's *duties* reasonably requested by WM after receipt of written notice to Employee of such failure to perform, specifying such failure (other than as a result of Employee's sickness, illness, injury, death or disability) and Employee fails to cure such nonperformance within ten (10) days of receipt of said written notice; (2) breach of any statutory or common law duty of loyalty to WM; (3) Employee has been convicted of, or pleaded *nolo contendre* to, any felony; (4) Employee willfully or intentionally caused material injury to WM, its property, or its assets; (5) Employee disclosed to unauthorized person(s) proprietary or confidential information of WM that causes a material injury to WM; (6) any material violation or a repeated and willful violation of WM's policies or procedures, including but not limited to, WM's Code of Business Conduct and Ethics (or any successor policy) then in effect.
- iv. **Window Period** means the period beginning on the date occurring six (6) months immediately prior to the date on which a Change in Control first occurs and ending on the second anniversary of the date on which a Change in Control occurs.
- 6. <u>Dividend Equivalents</u>. *Dividend Equivalents* mean an amount of cash equal to all dividends and distributions (or their economic equivalent) that are payable by the Company on one share of Common Stock to the stockholders of record. The Company will pay Dividend Equivalents with respect to RSUs as soon as administratively feasible (and no later than 74 days) following the original Vesting Date. The Company will make such payment in a lump sum cash amount for RSU Award Dividend Equivalents based on the number of RSUs vested multiplied by the per share quarterly dividend payments made to stockholders of the Company's Common Stock during the Restriction Period (without any interest or compounding). Any accumulated and unpaid Dividend Equivalents attributable to RSUs that do not vest or that are cancelled or forfeited will not be paid and are immediately forfeited upon cancellation or forfeiture of the RSUs.

### **General Terms**

#### 1. Restrictions on Transfer.

- a. Absent prior written consent of the Committee, RSU Awards may not be sold, assigned, transferred, pledged or otherwise encumbered, whether voluntarily or involuntarily, by operation of law or otherwise, other than pursuant to a domestic relations order; provided, however, that the transfer of any shares of Common Stock issued under the RSU Awards shall not be restricted by virtue of this Agreement once such shares have been paid out.
- b. Consistent with paragraph 1.a. above and except as provided in paragraph 3. below, no right or benefit under this Agreement shall be subject to transfer, anticipation, alienation, sale, assignment, pledge, encumbrance or charge, whether voluntary, involuntary, by operation of law or otherwise, and any attempt to transfer, anticipate, alienate, sell, assign, pledge, encumber or charge the same shall be void. No right or benefit hereunder shall in any manner be liable for or subject to any debts, contracts, liabilities or torts of the person entitled to such benefits. If Employee or his Beneficiary shall attempt to transfer, anticipate, alienate, assign,

sell, pledge, encumber or charge any right or benefit hereunder (other than pursuant to a domestic relations order), or if any creditor shall attempt to subject the same to a writ of garnishment, attachment, execution sequestration, or any other form of process or involuntary lien or seizure, then such attempt shall have no effect and shall be void.

- 2. Fractional Shares. No fractional shares of Common Stock will be issued under the Plan or this Agreement.
- 3. Withholding Tax. Employee agrees that Employee is responsible for federal, state and local tax consequences associated with the RSU Awards (and any associated Dividend Equivalents) under this Agreement. Upon the occurrence of a taxable event with respect to any RSU Award under this Agreement, Employee shall deliver to WM at such time, such amount of money or shares of Common Stock earned or owned by Employee, at Employee's election, as WM may require to meet its obligation under applicable tax laws or regulations, and, if Employee fails to do so, WM is authorized to withhold from any shares of Common Stock deliverable to Employee, cash, or other form of remuneration then or thereafter payable to Employee, any tax required to be withheld.
- 4. Compliance with Securities Laws. WM is not required to deliver any shares of Common Stock under this Agreement, if, in the opinion of counsel for the Company, such issuance would violate the Securities Act of 1933 or any other applicable federal or state securities laws or regulations. Prior to the issuance of any shares, WM may require Employee (or Employee's legal representative upon Employee's death or disability) to enter into such written representations, warranties and agreements as WM may reasonably request in order to comply with applicable laws, including an agreement (in such form as the Committee may specify) under which Employee represents that the shares of Common Stock acquired under an RSU Award are being acquired for investment and not with a view to sale or distribution.

Further, WM may postpone issuing and/or delivering any Common Stock for so long as WM, in its complete and sole discretion, reasonably determines is necessary to satisfy any of the following conditions: (a) the Company completing or amending any securities registration or qualification of the Common Stock, (b) receipt of proof satisfactory to WM that a person seeking to exercise the RSU Award after the Employee's death is entitled to do so; (c) establishment of Employee's compliance with any necessary representations or terms and conditions of the Plan or this Agreement, or (d) compliance with any federal, state, or local tax withholding obligations.

- 5. <u>Employee to Have no Rights as a Stockholder.</u> Employee shall have no rights as a stockholder with respect to any shares of Common Stock subject to this RSU Award prior to the date on which Employee is recorded as the holder of such shares of Common Stock on the records of the Company, including no right to dividends declared on the Common Stock underlying the RSU Award. Notwithstanding the foregoing, Dividend Equivalents shall be paid to Employee in accordance with and subject to the terms of paragraph 7 under "Important Award Details."
- 6. <u>Successors and Assigns</u>. This Agreement shall bind and inure to the benefit of and be enforceable by Employee, WM and their respective permitted successors or assigns (including personal representatives, heirs and legatees), except that Employee may not assign any rights or obligations under this Agreement except to the extent, and in the manner, expressly permitted herein. The Company shall require any successor (whether direct or indirect, by purchase, merger, consolidation or otherwise) to all or substantially all of the business and/or assets of the Company to assume expressly and agree to perform this Agreement in the same manner and to the same extent that WM would be required to perform it if no such succession had taken place, except as otherwise expressly provided in paragraph 6 under "Important Award Details."
- 7. <u>Limitation of Rights</u>. Nothing in this Agreement or the Plan may be construed to:
  - a. give Employee any right to be awarded any further RSU Awards other than in the sole discretion of the Committee;

- b. give Employee or any other person any interest in any fund or in any specified asset or assets of WM (other than the RSU Awards made by this Agreement, the related Dividend Equivalents awarded under this Agreement, and any Common Stock issuable under the terms and conditions of such RSU Awards); or
- c. confer upon Employee the right to continue in the employment or service of WM.
- 8. <u>Governing Law</u>. This Agreement shall be governed by and construed in accordance with the internal laws of the State of Texas, without reference to principles of conflict of laws.
- 9. <u>Severability/Entire Agreement</u>. The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement.
  - a. Employee understands and agrees that the RSU Awards granted under this Agreement are granted under the authority of the Plan and these RSU Awards and this Agreement are in all ways governed by the terms and conditions of the Plan and its administrative practices and interpretations. Any inconsistency between the Agreement and the Plan shall be resolved in favor of the Plan. Employee also agrees the terms and conditions of the Plan, this Agreement and related administrative practices and interpretations control, even if there is a conflict with any other terms and conditions in any employment agreement or in any prior awards. Without limiting the generality of the foregoing, as a condition to receipt of this Award, Employee agrees that the provisions relating to vesting and/or forfeiture of this Award upon a Termination of Employment set forth in this Agreement supersede and replace any provisions relating to vesting of the Award upon termination or other event set forth in any employment agreement, offer letter or similar document.
  - b. Employee understands and agrees that he or she is to consult with and rely upon only Employee's own tax, legal, and financial advisors regarding the consequences and risks of this Agreement and the awards made under this Agreement.
  - c. Except as provided in paragraph 13 below, this Agreement may not be amended except in writing (including by electronic writing) signed by all the parties to this Agreement (or their respective successors and legal representatives). The captions are not a part of the Agreement and for that reason shall have no force or effect.
- 10. <u>No Waiver</u>. In the event the Employee or WM fails to insist on strict compliance with any term or condition of this Agreement or fails to assert any right under this Agreement, such failure is not a waiver of that term, condition or right.
- 11. <u>Covenant Requirement Essential Part of RSU Award</u>. An overriding condition (even if any other provision of the Plan and this Agreement are conflicting) for Employee to receive any benefit from or payment of any RSU Award under this Agreement, is that Employee must also have entered into an agreement containing restrictive covenants concerning limitations on Employee's behavior following termination of employment that is satisfactory to WM.
- 12. <u>Definitions</u>. If not defined in this Agreement, capitalized terms have the meanings set forth in the Plan.
- 13. Compliance with Section 409A. Both WM and Employee intend that this Agreement not result in unfavorable tax consequences to Employee under Section 409A. Accordingly, Employee consents to any amendment of this Agreement WM may reasonably make consistent to achieve that intention and WM may, disregarding any other provision in this Agreement to the contrary, unilaterally execute such amendment to this Agreement. WM shall promptly provide, or make available to, Employee a copy of any such amendment. WM agrees to make any such amendments to preserve the intended benefits to the Employee to the maximum extent possible. This paragraph does not create an obligation on the part of WM to modify this Agreement and does not guarantee that the amounts or benefits owed under the Agreement will not be subject to interest and penalties under Section 409A. Each cash and/or stock payment and/or benefit provided under the Plan and this Agreement and/or pursuant to the terms of WM's benefit plans, programs and policies shall be considered a separate payment for purposes of Section 409A. For purposes of Section 409A, to the extent that Employee is a "specified employee" within the meaning of

the Treasury Regulations issued pursuant to Section 409A as of Employee's separation from service and to the limited extent necessary to avoid the imputation of any tax, penalty or interest pursuant to Section 409A, notwithstanding anything to the contrary in this Agreement, no amount which is subject to Section 409A of the Code and is payable on account of Employee's separation from service shall be paid to Employee before the date (the "Delayed Payment Date") which is the first day of the seventh month after the Employee's separation from service or, if earlier, the date of the Employee's death following such separation from service. All such amounts that would, but for the immediately preceding sentence, become payable prior to the Delayed Payment Date will be accumulated and paid without interest on the Delayed Payment Date.

- 14. <u>Use of Personal Data</u>. Employee agrees to the collection, use, processing and transfer of certain personal data, including name, salary, nationality, job title, position, social security number (or other tax identification number) and details of all past Awards and current Awards outstanding under the Plan ("Data"), for the purpose of managing and administering the Plan. Employee is not obliged to consent to such collection, use, processing and transfer of personal data, but a refusal to provide such consent may affect the ability to participate in the Plan. WM may transfer Data among themselves or to third parties as necessary for the purpose of implementation, administration and management of the Plan. These various recipients of Data may be located throughout the world. Employee authorizes these various recipients of Data to receive, possess, use, retain and transfer the Data, in electronic or other form, for the purposes of implementing, administering and managing the Plan. Employee may, at any time, review Data with respect to Employee and require any necessary amendments to such Data. Employee may withdraw his or her consent to use Data herein by notifying WM in writing (according to the provisions of paragraph 15 below); however, Employee understands that by withdrawing his or her consent to use Data, Employee may affect his or her ability to participate in the Plan.
- 15. Notices. Any notice given by one party under this Agreement to the other shall be in writing and may be delivered personally or by mail, postage prepaid, addressed to the Secretary of the Company, at its then corporate headquarters, and Employee at Employee's address as shown on WM's records, or to such other address as Employee, by notice to the Company, may designate in writing from time to time.
- 16. <u>Electronic Delivery</u>. WM may, in its sole discretion, deliver any documents related to the Awards under this Agreement, the Plan, and/or the WM 409A Plan, by electronic means or request Employee's consent to participate in the administration of this Agreement, the Plan, and/or the WM 409A Plan by electronic means. Employee hereby consents to receive such documents by electronic delivery and agrees to participate in the Plan through an on-line or electronic system established and maintained by WM or another third party designated by WM.
- 17. <u>Clawback</u>. Notwithstanding any provisions in the Plan or this Agreement to the contrary, any portion of the payments and benefits provided under this Agreement or the sale of any shares of Common Stock issued hereunder shall be subject to any clawback or other recovery policy adopted by the Committee from time to time, including, without limitation, any such policy adopted in accordance with the requirements of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 or any SEC rule.
- 18. <u>Binding Arbitration</u>. Except as otherwise specifically provided herein, the Committee's findings, calculations and determinations under this Agreement are made in the sole discretion of the Committee, and Employee expressly agrees that such determinations shall be final and not subject to dispute. In the event, however, that Employee has a right to dispute a matter hereunder (including, but not limited to the right to dispute set forth in paragraph 4 under "Important Award Details"), the Company and Employee agree that such dispute shall be settled exclusively by final and binding arbitration, as governed by the Federal Arbitration Act (9 U.S.C. 1 et seq.). The arbitration proceeding, including the rendering of an award, if any, shall be administered by JAMS pursuant to its Employment Arbitration Rules and Procedures, which may be found on the JAMS Website www.jamsadr.com. All expenses associated with the arbitration shall be borne by WM; provided however, that such arbitration expenses will not include attorney fees incurred by the respective parties. Judgment on any arbitration award may be entered in any court having jurisdiction.

19. <u>Counterparts</u> . This Agreement may be executed in original.	n counterparts, which together shall constitute one and the same
I	Execution
IN WITNESS WHEREOR he Company has caused this duly authorized and Employee has executed this Agree	is Agreement to be duly executed by one of its officers thereunto ement, effective as of [GrantDate].
WASTE MANAGEMENT, INC.	
Barry Caldwell Date	Employee
	9

#### WASTE MANAGEMENT, INC.

## COMPUTATION OF RATIO OF EARNINGS TO FIXED CHARGES (In Millions, Except Ratios) (Unaudited)

	Years Ended December 31,							
	2	2017	- :	2016	2015	2014		2013
Income before income taxes and losses in equity investments (b)	\$	2,263	\$	1,867	\$ 1,109	\$ 1,805	\$	535
Fixed charges deducted from income:								
Interest expense		368		385	391	471		481
Implicit interest in rents		44		42	46	53		56
		412		427	437	524		537
Earnings available for fixed charges (b)		2,675	\$	2,294	\$ 1,546	\$ 2,329	\$	1,072
Interest expense	\$	368	\$	385	\$ 391	\$ 471	\$	481
Capitalized interest		15		9	16	16		19
Implicit interest in rents		44		42	46	53		56
Total fixed charges (b)		427	\$	436	\$ 453	\$ 540	\$	556
Ratio of earnings to fixed charges (a)		6.3x		5.3x	3.4x	4.3x		1.9x
Adjusted ratio of earnings to fixed charges (c)		6.2x		5.5x	4.9x	4.2x		3.7x

- (a) We have computed the ratio of earnings to fixed charges by dividing earnings available for fixed charges by fixed charges. For this purpose, earnings available for fixed charges consist of consolidated earnings before income taxes, cumulative effects of changes in accounting principles, losses in equity investments and fixed charges. Fixed charges consist of interest expense, capitalized interest, and the portion of our operating lease rental expense that represents an interest factor, which we refer to as implicit interest in rents.
- (b) To the extent interest may be assessed by taxing authorities on any underpayment of income tax, such amounts are classified as a component of income tax expense in our Consolidated Statements of Operations. For purposes of this disclosure, we have elected to exclude interest expense related to income tax matters from our measurements of earnings available for fixed charges and total fixed charges for all periods presented, as amounts are immaterial.
- (c) This adjusted ratio of earnings to fixed charges ("Adjusted Ratio") excludes the impact of restructuring charges, impairments, divestitures, losses on early extinguishment of debt and other adjustments, including our subsidiary's estimated potential share of an environmental remediation liability and related costs for a closed site. A reconciliation showing the effect of these items on our income before income taxes and losses in equity investments used to calculate our earnings available for fixed charges is as follows (in millions):

	Years Ended December 31,				
	2017	2016	2015	2014	2013
As reported income before income taxes and losses in equity					
investments	\$ 2,263	\$ 1,867	\$ 1,109	\$ 1,805	\$ 535
Adjustments to income before income taxes and losses in					
equity investments:					
Restructuring costs	_	4	15	82	18
Asset impairments	41	59	89	355	981
(Income) expense from divestitures	(38)	9	(7)	(515)	(8)
Loss on early extinguishment of debt	6	4	555	_	_
Environmental remediation and other adjustments	(19)	44	_	_	_
Adjusted income before income taxes and losses in equity					
investments	\$ 2,253	\$ 1,987	\$ 1,761	\$ 1,727	\$ 1,526

We believe that the Adjusted Ratio is useful to investors as an indicator of our ability to meet our fixed obligations because it is independent of significant non-cash impacts and other items that management believes are not representative of our results. The Adjusted Ratio is a measurement not calculated in accordance with U.S. Generally Accepted Accounting Principles ("GAAP") and may not be comparable to similarly titled measures used by other companies. You should not rely on the Adjusted Ratio as a substitute for the ratio of earnings to fixed charges calculated and presented in accordance with GAAP or any other GAAP financial measure.

Entity Name	Jurisdiction of Formation / Incorporation
1-800-Pack-Rat, LLC	Delaware
635952 Ontario Inc.	Ontario
8242348 Canada Inc.	Federally Chartered/Canada
Acaverde S.A. de C.V.	Mexico
Advanced Environmental Technical Services, L.L.C.	Delaware
Akron Regional Landfill, Inc.	Delaware
Alliance Sanitary Landfill, Inc.	Pennsylvania
Alpharetta Transfer Station, LLC	Georgia
American Landfill. Inc.	Ohio
Anderson Landfill, Inc.	Delaware
Antelope Valley Recycling and Disposal Facility, Inc.	California
Arden Landfill, Inc.	Pennsylvania
Atlantic Waste Disposal, Inc.	Delaware
Automated Salvage Transport Co., L.L.C.	Delaware
Avalon South, LLC	Delaware
Azusa Land Reclamation, Inc.	California
B&B Landfill, Inc.	Delaware
Barre Landfill Gas Associates, L.P.	Delaware
Big Dipper Enterprises, Inc.	North Dakota
Bluegrass Containment, L.L.C.	Delaware
Burnsville Sanitary Landfill, Inc.	Minnesota
CA Newco, L.L.C.	Delaware
Cal Sierra Disposal	California
California Asbestos Monofill, Inc.	California
Canadian Waste Services Holdings Inc.	Ontario
Capital Sanitation Company	Nevada
Capitol Disposal, Inc.	Alaska
Carolina Grading, Inc.	South Carolina
Cedar Ridge Landfill, Inc.	Delaware
Central Disposal Systems, Inc.	Iowa
Chadwick Road Landfill, Inc.	Georgia
Chambers Clearview Environmental Landfill, Inc.	Mississippi
Chambers Development Company, Inc.	Delaware
Chambers Development of Ohio, Inc.	Ohio
Chambers of Georgia, Inc.	Delaware
Chambers of Georgia, inc. Chambers of Mississippi, Inc.	Mississippi
Chemical Waste Management of Indiana, L.L.C.	Delaware
Chemical Waste Management of the Northwest, Inc.	Washington
Chemical Waste Management, Inc.	Delaware
Chesser Island Road Landfill, Inc.	Georgia
City Environmental Services, Inc. of Waters	Michigan
Cleburne Landfill Company Corp.	Alabama
Coast Waste Management, Inc.	California
E ,	Massachusetts
Connecticut Valley Sanitary Waste Disposal, Inc. Conservation Services, Inc.	Colorado
Coshocton Landfill, Inc.	
Cosnocton Landini, inc. Cougar Landfill, Inc.	Ohio Texas
Countryside Landfill, Inc.	Illinois
CR Group, LLC	Utah
Cuyahoga Landfill, Inc.	Delaware
	Delaware Delaware
CWM Chemical Services, L.L.C.	
Dafter Sanitary Landfill, Inc.	Michigan
Dauphin Meadows, Inc.	Pennsylvania
Deep Valley Landfill, Inc.	Delaware

Peltz H.C., LLC Pen-Rob, Inc. Pen-Rob, Inc. Peterson Demolition, Inc. Phoenix Resources, Inc. Pine Grove Landfill, Inc. Pine Tree Acres, Inc. Pine Tree Acres, Inc. Pine Grove Landfill, Inc. Pine Grove Landfill, Inc. Pine Tree Acres, Inc. Pine Grove Landfill, Inc. Pine Tree Acres, Inc. Pine Grove Landfill, Inc. Pine Tree Acres, Inc. Pine Westport, LLC Quail Hollow Landfill, Inc. Polaware Questquill Limited England Re B Landfill, Inc. Georgia RAA Colorado, L.L.C. ROlorado RAA Trucking, LLC Wisconsin RCI Hudson, Inc. RCI Hudson, Inc. Recycle America Co., L.L.C. Pelaware Recycle America Holdings, Inc. Pelaware Recycle America Holdings, Inc. Pelaware Refuse Services, Inc. Refuse Services, Inc. Refuse Services, Inc. Refuse Services, Inc. Refuse Control Composting, Inc. Pelaware Reno Disposal Co. Resco Holdings L.L.C. Resource Control Composting, Inc. Resource Control, Inc. Resource Control
People's Landfill, Inc. Peterson Demolition, Inc. Peterson Demolition, Inc. Minnesota Phoenix Resources, Inc. Pennsylvania Pine Grove Landfill, Inc. Pennsylvania Pine Tree Acres, Inc. Michigan Prime Westport, LLC Quail Hollow Landfill, Inc. Pelaware Questquill Limited England R & B Landfill, Inc. Quail Hollow Landfill, Inc. Quail Hollow Landfill, Inc. Questquill Limited R & B Landfill, Inc. R & B Landfill
Peterson Demolition, Inc. Phoenix Resources, Inc. Phoenix Resources, Inc. Pennsylvania Pine Grove Landfill, Inc. Pennsylvania Pine Tree Acres, Inc. Prime Westport, LLC Florida Quail Hollow Landfill, Inc. Delaware Quail Hollow Landfill, Inc. Georgia R& B Landfill, Inc. Georgia RAA Colorado, L.L.C. Colorado RAA Trucking, LLC Wisconsin RCI Hudson, Inc. Massachusetts Recycle America Holdings, Inc. Delaware Redwood Landfill, Inc. Refuse Services, Inc. Refuse Services, Inc. Refuse Services, Inc. Refuse Services, Inc. Remote Landfill, L.L.C. Delaware Remote Landfill, L.L.C. Delaware Remote Londfill Services, Inc. Remote Landfill Services, Inc. Resource Control Composting, Inc. Massachusetts Resource Control Composting, Inc. Massachusetts Resource Control Composting, Inc. Resource Control Composting, Inc. Resource Control Inc. Massachusetts Resource Control Inc. Massachusetts Resource Control, Inc. Massachusetts Resource Massachusetts Resource Control Composting, Inc. Resource Massachusetts Resource Control Rec. Resource Control Composting, Inc. Resource Massachusetts Resource Control Rec. Resource Control Rec. Resource Control Composting, Inc. Massachusetts Resource Control Composting, Inc. Massachusetts Resource Control Composting, Inc. Resource Control Resource Control Resource Control Resource Control Resource Cont
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Pine Grove Landfill, Inc. Pine Tree Acres, Inc. Michigan Prime Westport, LLC Quail Hollow Landfill, Inc. Delaware Questquill Limited R & B Landfill, Inc. Georgia RAA Colorado, L.L.C. Colorado RAA Trucking, LLC Wisconsin RCI Hudson, Inc. Massachusetts Recycle America Co., L.L.C. Recycle America Holdings, Inc. Delaware Redwood Landfill, Inc. Delaware Redwood Landfill, Inc. Poleaware Refuse Services, Inc. Refuse, Inc. Refuse, Inc. Refuse, Inc. Refuse, Inc. Resoure Control Composting, Inc. Delaware Resource Control Composting, Inc. Resource Control Composting, Inc. Resource Control Landfill, Inc. Delaware Resource Control Lomposting, Inc. Resource Control Composting, Inc. Resource Control Composting Rec. Resource Control Landfill, Inc. Delaware Resource Control Landfill, Inc. Delaware Resource Control Composting Rec. Resource Control Rec. Resource Control Rec. Resource Control Composting Rec. Resource Control Resource Resource Rec. Resource Control Rec. Resource R
Pine Tree Acres, Inc. Prime Westport, LLC Quail Hollow Landfill, Inc. Questquill Limited England R & B Landfill, Inc. Georgia RAA Colorado, L.L.C. RAA Trucking, LLC Wisconsin RCI Hudson, Inc. Recycle America Co., L.L.C. Pelaware Recycle America Co., L.L.C. Recycle America Holdings, Inc. Redwood Landfill, Inc. Pelaware Redwood Landfill, Inc. Pelaware Refuse Services, Inc. Refuse Services, Inc. Refuse Inc. Refuse, Inc. Remote Landfill Services, Inc. Remote Landfill Services, Inc. Resource Control Composting, Inc. Resource Control Composting, Inc. Resource Control, Inc.
Prime Westport, LLC Quail Hollow Landfill, Inc. Quail Hollow Landfill, Inc. Questquill Limited R & B Landfill, Inc. Georgia RAA Colorado, L.L.C. Colorado RAA Trucking, LLC RAA Trucking, LLC RAA Trucking, LLC ROI Hudson, Inc. RCI Hudson, Inc. Recycle America Co., L.L.C. Delaware Recycle America Holdings, Inc. Recycle America Holdings, Inc. Refuse Services, Inc. Reno Disposal Co. Reno Disposal Co. Reso Holdings L.L.C. Resource Control Composting, Inc. Resource Control, Inc. Riverbend Landfill, Inc. Riverbend Landfill, Inc. Delaware Resource Resource Control, Inc. Riverbend Landfill, Inc. Delaware Riverbend Landfill, Inc. Round County Landfill, Inc. Round County Landfill, Inc. Round County Landfill, Inc. Riverbend Landfill Co. Roll Off Service, LLC Ransas RTS Landfill, Inc. Delaware Rust Engineering & Construction Inc. Delaware Rust Engineering & Construction Inc. Delaware Rust Engineering & Construction Inc. Rust International Inc. Delaware Rust International Inc. Revas S & Grading, Inc. West Virginia S&T Materials, LLC Florida Sanifill de Mexico (US), Inc. Delaware
Quail Hollow Landfill, Inc.       Delaware         Questquill Limited       England         R & B Landfill, Inc.       Georgia         RAA Colorado, L.L.C.       Colorado         RAA Trucking, LLC       Wisconsin         RCI Hudson, Inc.       Massachusetts         Recycle America Co., L.L.C.       Delaware         Recycle America Holdings, Inc.       Delaware         Redwood Landfill, Inc.       Delaware         Refuse Services, Inc.       Florida         Refuse Services, Inc.       Nevada         Reliable Landfill, L.L.C.       Delaware         Remote Landfill Services, Inc.       Tennessee         Reno Disposal Co.       Nevada         Resco Holdings L.L.C.       Delaware         Resource Control Composting, Inc.       Massachusetts         Resource Control, Inc.       Massachusetts         Resource Control, Inc.       Massachusetts         Richland County Landfill, Inc.       South Carolina         Riverbend Landfill Co.       Oregon         Roll Off Service, LLC       Kansas         RTS Landfill, Inc.       Delaware         Rust International Inc.       Delaware         Rust International Inc.       Delaware         S & S Grading, Inc.       W
Questquill Limited       England         R & B Landfill, Inc.       Georgia         RAA Colorado, L.L.C.       Colorado         RAA Trucking, LLC       Wisconsin         RCI Hudson, Inc.       Massachusetts         Recycle America Co., L.L.C.       Delaware         Recycle America Holdings, Inc.       Delaware         Redwood Landfill, Inc.       Delaware         Refuse Services, Inc.       Florida         Refuse, Inc.       Nevada         Refuse, Inc.       Nevada         Remote Landfill, L.L.C.       Delaware         Remote Landfill Services, Inc.       Tennessee         Reno Disposal Co.       Nevada         Resco Holdings L.L.C.       Delaware         Resource Control Composting, Inc.       Massachusetts         Resource Control, Inc.       Massachusetts         Richland County Landfill, Inc.       South Carolina         Riverbend Landfill Co.       Oregon         Roll Off Service, LLC       Kansas         RTS Landfill, Inc.       Delaware         Rust Engineering & Construction Inc.       Delaware         Rust International Inc.       Delaware         S & S Grading, Inc.       West Virginia         S&T Materials, LLC       Florida
R & B Landfill, Inc. RAA Colorado, L.L.C. Colorado RAA Trucking, LLC Wisconsin RCI Hudson, Inc. Massachusetts Recycle America Co., L.L.C. Delaware Recycle America Holdings, Inc. Redwood Landfill, Inc. Delaware Refuse Services, Inc. Refuse Services, Inc. Refuse Services, Inc. Refuse Landfill, L.L.C. Delaware Refuse Landfill Services, Inc. Remote Landfill Services, Inc. Remote Landfill Services, Inc. Resource Control Composting, Inc. Resource Control, Inc. Massachusetts Resource Control, Inc. Massachusetts Richland County Landfill, Inc. South Carolina Riverbend Landfill, Inc. Roll Off Service, LLC RTS Landfill, Inc. Delaware Rust Engineering & Construction Inc. Delaware Rust International Inc. S & S Grading, Inc. West Virginia S&T Materials, LLC Florida Sanifill de Mexico (US), Inc. Delaware
RAA Colorado, L.L.C. RAA Trucking, LLC Wisconsin RCI Hudson, Inc. Massachusetts Recycle America Co., L.L.C. Delaware Recycle America Holdings, Inc. Delaware Redwood Landfill, Inc. Refuse Services, Inc. Refuse, Inc. Refuse, Inc. Refuse, Inc. Remote Landfill, L.L.C. Delaware Remote Landfill Services, Inc. Resource Control Composting, Inc. Resource Control, Inc. Massachusetts Resource Control, Inc. Richland County Landfill, Inc. South Carolina Riverbend Landfill, Inc. Roll Off Service, LLC Kansas RTS Landfill, Inc. Delaware Rust Engineering & Construction Inc. Rust International Inc. S & S Grading, Inc. West Virginia S&T Materials, LLC Florida Sanifill de Mexico (US), Inc.
RAA Trucking, LLC  RCI Hudson, Inc.  RCI Hudson, Inc.  Recycle America Co., L.L.C.  Recycle America Holdings, Inc.  Redwood Landfill, Inc.  Refuse Services, Inc.  Refuse, Inc.  Refuse, Inc.  Rende Landfill, L.L.C.  Rende Landfill Services, Inc.  Reno Disposal Co.  Reno Disposal Co.  Resource Control Composting, Inc.  Resource Control, Inc.  Resource Control, Inc.  Resource Landfill, Inc.  Resource Landfill, Inc.  Resource Landfill, Inc.  Resource Control, Inc.  Resource Control Landfill, Inc.  Resource Control, Inc.  Resource Control, Inc.  Resource Control Landfill, Inc.  Resource Landfill, Inc.  Resource Landfill, Inc.  Resource Control Landfill, Inc.  Resource Control Landfill Co.  Resource Landfill, Inc.  Routh Carolina  Riverbend Landfill, Inc.  Routh Carolina  Riverbend Landfill, Inc.  Routh Carolina  Riverbend Landfill, Inc.  Routh Carolina  Routh Carolina  Rust Luch  Rust Engineering & Construction Inc.  Rust International Inc.  Delaware  S & J Landfill Limited Partnership  Texas  S & S Grading, Inc.  West Virginia  S & S Grading, Inc.  Routh Carolina  Resource Couthon Composition Couth Carolina  Resource Control, Inc.  Resource Con
RCI Hudson, Inc.  Recycle America Co., L.L.C.  Recycle America Holdings, Inc.  Redwood Landfill, Inc.  Refuse Services, Inc.  Refuse Services, Inc.  Refuse Landfill, L.L.C.  Remote Landfill, L.L.C.  Remote Landfill Services, Inc.  Remote Landfill Services, Inc.  Resco Holdings L.L.C.  Resco Holdings L.L.C.  Resource Control Composting, Inc.  Resource Control, Inc.  Richland County Landfill, Inc.  Roll Off Service, LLC  Roll Off Service, LLC  Rust Engineering & Construction Inc.  Rust Engineering & Construction Inc.  Rust International Inc.  S & J Landfill Limited Partnership  S & S Grading, Inc.  West Virginia  S&T Materials, LLC  Florida  Sanifill de Mexico (US), Inc.  Delaware  Roll Massachusetts  Raseurce Control Inc.  Rust International Inc.  Rust Internati
Recycle America Co., L.L.C.  Recycle America Holdings, Inc.  Redwood Landfill, Inc.  Refuse Services, Inc.  Refuse, Inc.  Refuse, Inc.  Reliable Landfill, L.L.C.  Delaware  Remote Landfill Services, Inc.  Remote Landfill Services, Inc.  Remote Landfill Services, Inc.  Resource Control Composting, Inc.  Resource Control Composting, Inc.  Resource Control, Inc.  Resource Control, Inc.  Richland County Landfill, Inc.  Riverbend Landfill Co.  Rorgon  Roll Off Service, LLC  Kansas  RTS Landfill, Inc.  Delaware  Rust Engineering & Construction Inc.  Rust Engineering & Construction Inc.  Rust International Inc.  S & J Landfill Limited Partnership  S & S Grading, Inc.  West Virginia  S&T Materials, LLC  Florida  Sanifill de Mexico (US), Inc.  Delaware
Recycle America Holdings, Inc.  Redwood Landfill, Inc.  Refuse Services, Inc.  Refuse, Inc.  Refuse, Inc.  Reliable Landfill, L.L.C.  Remote Landfill, L.L.C.  Remote Landfill Services, Inc.  Reno Disposal Co.  Reno Disposal Co.  Resco Holdings L.L.C.  Delaware  Resource Control Composting, Inc.  Resource Control, Inc.  Richland County Landfill, Inc.  Richland County Landfill, Inc.  Richland Ferrier, L.C.  Restource Control, Inc.  Riverbend Landfill Co.  Roll Off Service, LLC  Kansas  RTS Landfill, Inc.  Delaware  Rust Engineering & Construction Inc.  Rust International Inc.  S & J Landfill Limited Partnership  S & S Grading, Inc.  West Virginia  S&T Materials, LLC  Florida  Sanifill de Mexico (US), Inc.  Delaware  Delaware  Florida  Selaware
Redwood Landfill, Inc.DelawareRefuse Services, Inc.FloridaRefuse, Inc.NevadaReliable Landfill, L.L.C.DelawareRemote Landfill Services, Inc.TennesseeReno Disposal Co.NevadaResco Holdings L.L.C.DelawareResource Control Composting, Inc.MassachusettsResource Control, Inc.MassachusettsRichland County Landfill, Inc.South CarolinaRiverbend Landfill Co.OregonRoll Off Service, LLCKansasRTS Landfill, Inc.DelawareRust Engineering & Construction Inc.DelawareRust International Inc.DelawareS & J Landfill Limited PartnershipTexasS & S Grading, Inc.West VirginiaS&T Materials, LLCFloridaSanifill de Mexico (US), Inc.Delaware
Refuse Services, Inc.  Refuse, Inc.  Refuse, Inc.  Reliable Landfill, L.L.C.  Delaware  Remote Landfill Services, Inc.  Reno Disposal Co.  Resco Holdings L.L.C.  Resource Control Composting, Inc.  Resource Control, Inc.  Resource Control, Inc.  Richland County Landfill, Inc.  Riverbend Landfill Co.  Roll Off Service, LLC  RTS Landfill, Inc.  RTS Landfill, Inc.  Rust Engineering & Construction Inc.  Rust Engineering & Construction Inc.  Rust International Inc.  Delaware  Rust International Inc.  Delaware  S & J Landfill Limited Partnership  Texas  S & S Grading, Inc.  West Virginia  S&T Materials, LLC  Florida  Sanifill de Mexico (US), Inc.  Delaware
Refuse, Inc. Reliable Landfill, L.L.C. Delaware Remote Landfill Services, Inc. Tennessee Reno Disposal Co. Nevada Resco Holdings L.L.C. Delaware Resource Control Composting, Inc. Massachusetts Resource Control, Inc. Massachusetts Richland County Landfill, Inc. South Carolina Riverbend Landfill Co. Oregon Roll Off Service, LLC Kansas RTS Landfill, Inc. Delaware Rust Engineering & Construction Inc. Delaware Rust International Inc. Delaware S & J Landfill Limited Partnership Texas S & S Grading, Inc. West Virginia S&T Materials, LLC Florida Sanifill de Mexico (US), Inc. Delaware
Reliable Landfill, L.L.C.  Remote Landfill Services, Inc.  Reno Disposal Co.  Resco Holdings L.L.C.  Resource Control Composting, Inc.  Resource Control, Inc.  Richland County Landfill, Inc.  Richland County Landfill, Inc.  Riverbend Landfill Co.  Roll Off Service, LLC  Rust Engineering & Construction Inc.  Rust Engineering & Construction Inc.  Rust International Inc.  S & J Landfill Limited Partnership  S & S Grading, Inc.  Rust Virginia  S&T Materials, LLC  Florida  Sanifill de Mexico (US), Inc.  Delaware  Pelaware  Polaware  Florida  Sanifill de Mexico (US), Inc.  Delaware
Remote Landfill Services, Inc.  Reno Disposal Co.  Resco Holdings L.L.C.  Resource Control Composting, Inc.  Resource Control, Inc.  Resource Control, Inc.  Richland County Landfill, Inc.  Richland County Landfill, Inc.  Riverbend Landfill Co.  Roll Off Service, LLC  Rassa  RTS Landfill, Inc.  Delaware  Rust Engineering & Construction Inc.  Rust Engineering & Construction Inc.  Rust International Inc.  Delaware  S & J Landfill Limited Partnership  S & S Grading, Inc.  West Virginia  S&T Materials, LLC  Florida  Sanifill de Mexico (US), Inc.  Tennessee  Nevada  Nevada  Revada  Massachusetts  Massachusetts  South Carolina  Kansas  Poleaware  Rustange  Rustange  Poleaware  S & J Landfill Limited Partnership  Fexas  S & Florida  Sanifill de Mexico (US), Inc.
Reno Disposal Co. Resco Holdings L.L.C. Delaware Resource Control Composting, Inc. Massachusetts Resource Control, Inc. Massachusetts Richland County Landfill, Inc. South Carolina Riverbend Landfill Co. Oregon Roll Off Service, LLC Kansas RTS Landfill, Inc. Delaware Rust Engineering & Construction Inc. Delaware Rust International Inc. Delaware S & J Landfill Limited Partnership Texas S & S Grading, Inc. West Virginia S&T Materials, LLC Florida Sanifill de Mexico (US), Inc. Delaware
Resco Holdings L.L.C.  Resource Control Composting, Inc.  Resource Control, Inc.  Richland County Landfill, Inc.  Riverbend Landfill Co.  Roll Off Service, LLC  Rust Engineering & Construction Inc.  Rust Engineering & Construction Inc.  Rust International Inc.  Suth Carolina  Kansas  RTS Landfill, Inc.  Delaware  Rust Engineering & Construction Inc.  Delaware  S & J Landfill Limited Partnership  Texas  S & S Grading, Inc.  West Virginia  S&T Materials, LLC  Florida  Sanifill de Mexico (US), Inc.  Delaware
Resource Control Composting, Inc.  Resource Control, Inc.  Richland County Landfill, Inc.  Riverbend Landfill Co.  Roll Off Service, LLC  Rust Engineering & Construction Inc.  Rust International Inc.  Suth Carolina  Coregon  Kansas  RTS Landfill, Inc.  Delaware  Rust Engineering & Construction Inc.  Delaware  Rust International Inc.  Delaware  S & J Landfill Limited Partnership  Texas  S & S Grading, Inc.  West Virginia  S&T Materials, LLC  Florida  Sanifill de Mexico (US), Inc.  Delaware
Resource Control, Inc.  Richland County Landfill, Inc.  Riverbend Landfill Co.  Roll Off Service, LLC  Ransas  RTS Landfill, Inc.  Rust Engineering & Construction Inc.  Rust International Inc.  Sudavare  S & J Landfill Limited Partnership  S & S Grading, Inc.  S & T Materials, LLC  Sanifill de Mexico (US), Inc.  Massachusetts  South Carolina  Negon  Belaware  Ransas  Pelaware  Delaware  Texas  West Virginia  Florida  Sanifill de Mexico (US), Inc.  Delaware
Richland County Landfill, Inc.  Riverbend Landfill Co.  Roll Off Service, LLC  Kansas  RTS Landfill, Inc.  Delaware  Rust Engineering & Construction Inc.  Rust International Inc.  Delaware  S & J Landfill Limited Partnership  Texas  S & S Grading, Inc.  West Virginia  S&T Materials, LLC  Florida  Sanifill de Mexico (US), Inc.  South Carolina  Names  Sansas  Polaware  Delaware  Texas  West Virginia  Florida  Sell Materials, LLC  Florida  Delaware
Riverbend Landfill Co.  Roll Off Service, LLC  Kansas  RTS Landfill, Inc.  Delaware  Rust Engineering & Construction Inc.  Rust International Inc.  Delaware  S & J Landfill Limited Partnership  Texas  S & S Grading, Inc.  West Virginia  S&T Materials, LLC  Florida  Sanifill de Mexico (US), Inc.  Dorgon  Kansas  Delaware  Delaware  Texas  Florida  Delaware
Roll Off Service, LLC  RTS Landfill, Inc.  Rust Engineering & Construction Inc.  Rust International Inc.  S & J Landfill Limited Partnership  S & S Grading, Inc.  S&T Materials, LLC  Sanifill de Mexico (US), Inc.  Kansas  Rust Ansas  Delaware  Delaware  Texas  West Virginia  Florida  Snifill de Mexico (US), Inc.  Delaware
RTS Landfill, Inc.  Rust Engineering & Construction Inc.  Rust International Inc.  S & J Landfill Limited Partnership  S & S Grading, Inc.  S&T Materials, LLC  Sanifill de Mexico (US), Inc.  Delaware  Texas  West Virginia  Florida  Self Materials, LLC  Florida  Delaware
RTS Landfill, Inc.  Rust Engineering & Construction Inc.  Rust International Inc.  S & J Landfill Limited Partnership  S & S Grading, Inc.  S&T Materials, LLC  Sanifill de Mexico (US), Inc.  Delaware  Texas  West Virginia  Florida  Self Materials, LLC  Florida  Delaware
Rust International Inc.  S & J Landfill Limited Partnership  S & S Grading, Inc.  S&T Materials, LLC  Sanifill de Mexico (US), Inc.  Delaware  West Virginia  Florida  Delaware
Rust International Inc.  S & J Landfill Limited Partnership  S & S Grading, Inc.  S&T Materials, LLC  Sanifill de Mexico (US), Inc.  Delaware  West Virginia  Florida  Delaware
S & S Grading, Inc.  S&T Materials, LLC  Sanifill de Mexico (US), Inc.  West Virginia  Florida  Delaware
S&T Materials, LLC Florida Sanifill de Mexico (US), Inc. Delaware
Sanifill de Mexico (US), Inc.  Delaware
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Conifil do Maying CA do CV
Sanifill de Mexico, S.A. de C.V. Mexico
SC Holdings, Inc. Pennsylvania
SF Land Acquisition, LLC Florida
Shade Landfill, Inc. Delaware
Shawnee Rock Company Missouri
Sierra Estrella Landfill, Înc. Arizona
Southern Alleghenies Landfill, Inc. Pennsylvania
Southern One Land Corporation Delaware
Southern Waste Services, L.L.C. Delaware
Spruce Ridge, Inc. Minnesota
Stony Hollow Landfill, Inc. Delaware
Suburban Landfill, Inc. Delaware
Swire Waste Management Limited Hong Kong
Texarkana Landfill, L.L.C. Delaware
Texas Pack Rat - Austin #1 LLC Texas
Texas Pack Rat - Dallas #1 LLC Texas
Texas Pack Rat - Houston #1 LLC Texas
Texas Pack Rat - Houston #2 LLC Texas
Texas Pack Rat - Houston #3 LLC Texas
Texas Pack Rat - San Antonio #1 LLC Texas
Texas Pack Rat Service Company LLC Texas

Entity Name	Jurisdiction of Formation / Incorporation
WM Pack-Rat of Michigan, LLC	Delaware
WM Pack-Rat of Nevada, LLC	Delaware
WM Pack-Rat of Ohio, LLC	Delaware
WM Pack-Rat of Rhode Island, LLC	Delaware
WM Pack-Rat, LLC	Delaware
WM Partnership Holdings, Inc.	Delaware
WM Phoenix Energy Resources, LLC	Delaware
WM PRG, L.L.C.	Colorado
WM Propane, LLC	Delaware
WM Quebec Inc.	Federally Chartered/Canada
WM RA Canada Inc.	Ontario
WM Recycle America, L.L.C.	Delaware
WM Recycle Europe, L.L.C.	Delaware
WM Recycling Latin America, LLC	Delaware
WM Refined Coal, LLC	Delaware
WM Renewable Energy, L.L.C.	Delaware
WM Resource Recovery & Recycling Center, Inc.	Delaware
WM Resources, Inc.	Pennsylvania
WM Safety Services, L.L.C.	Delaware
WM Security Services, Inc.	Delaware
WM Services SA	Argentina
WM Storage II, Inc.	Delaware
WM Storage, Inc.	Delaware
WM Texas Pack Rat, LLC	Delaware
WM Trash Monitor Plus, L.L.C.	Delaware
WM TX Energy Resources II, LLC	Delaware
WM TX Energy Resources, LLC	Delaware
WM WY Energy Resources II, LLC	Delaware
WM WY Energy Resources III, LLC	Delaware
WM WY Energy Resources, LLC	Delaware
WMI Mexico Holdings, Inc.	Delaware
WMNA Container Recycling, L.L.C.	Delaware
WMRE of Kentucky, LLC	Delaware
WMRE of Michigan, LLC	Delaware
WMRE of Ohio, LLC	Delaware
WMRE of Ohio-American, LLC	Texas
WMSALSA, Inc.	Texas
WTI Air Pollution Control Inc.	Delaware
WTI Rust Holdings Inc.	Delaware

### Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the following Registration Statements:

- (1) Registration Statement (Form S-8 No. 333-204319) of Waste Management, Inc. pertaining to the issuance of shares of common stock pursuant to the Waste Management, Inc. Employee Stock Purchase Plan,
- (2) Registration Statement (Form S-8 No. 333-195980) of Waste Management, Inc. pertaining to the issuance of shares of common stock pursuant to the 2014 Stock Incentive Plan,
- (3) Registration Statement (Form S-8 No. 333-184156 and Post-Effective Amendment No. 1 thereto) of Waste Management, Inc. pertaining to the issuance of shares of common stock pursuant to the Waste Management Retirement Savings Plan,
- (4) Registration Statement (Form S-3 Automatic Shelf Registration No. 333-207628) of Waste Management, Inc.,
- (5) Registration Statement (Form S-4 No. 333-32805 and Post-Effective Amendment No. 1 thereto) of Waste Management, Inc., and
- (6) Registration Statement (Form S-8 No. 333-159476 and Post-Effective Amendment No. 1 thereto) of Waste Management, Inc. pertaining to the issuance of shares of common stock pursuant to the 2009 Stock Incentive Plan,

of our reports dated February 15, 2018, with respect to the consolidated financial statements and schedule of Waste Management, Inc. and the effectiveness of internal control over financial reporting of Waste Management, Inc. included in this Annual Report (Form 10-K) of Waste Management, Inc. for the year ended December 31, 2017.

/s/ ERNST & YOUNG LLP

Houston, Texas February 15, 2018

## CERTIFICATION PURSUANT TO RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, James C. Fish, Jr., certify that:

- i. I have reviewed this report on Form 10-K of Waste Management, Inc.;
- ii. 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;
- iii. 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;
- iv. 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 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
- v. 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 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 controls 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.

By:	/s/ JAMES C. FISH, JR.
· ·	James C. Fish, Jr.
	President and Chief Executive Officer

Date: February 15, 2018

## CERTIFICATION PURSUANT TO RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Devina A. Rankin, certify that:

- i. I have reviewed this report on Form 10-K of Waste Management, Inc.;
- ii. 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;
- iii. 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;
- iv. 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 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
- v. 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 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 controls 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.

By:	/s/ DEVINA A. RANKIN
	Devina A. Rankin
	Senior Vice President and
	Chief Financial Officer

Date: February 15, 2018

# 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 Annual Report of Waste Management, Inc. (the "Company") on Form 10-K for the period ended December 31, 2017 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, James C. Fish, Jr., Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Ву:	/s/ JAMES C. FISH, JR.
-	James C. Fish, Jr.
	President and Chief Executive Officer

February 15, 2018

# 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 Annual Report of Waste Management, Inc. (the "Company") on Form 10-K for the period ended December 31, 2017 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Devina A. Rankin, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Ву:	/s/ DEVINA A. RANKIN	
	Devina A. Rankin	
	Senior Vice President and	
	Chief Financial Officer	

February 15, 2018

#### Mine Safety Disclosures

This exhibit contains certain specified disclosures regarding mine safety required by section 1503(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 104 of Regulation S-K. Certain of our subsidiaries have permits for surface mining operations that are incidental to excavation work for landfill development.

During the year ended December 31, 2017, we did not receive any of the following: (a) a citation from the U.S. Mine Safety and Health Administration ("MSHA") for a violation of mandatory health or safety standards that could significantly and substantially contribute to the cause and effect of a coal or other mine safety or health hazard under section 104 of the Federal Mine Safety and Health Act of 1977 (the "Mine Safety Act"); (b) an order issued under section 104(b) of the Mine Safety Act; (c) a citation or order for unwarrantable failure of the mine operator to comply with mandatory health or safety standards under section 104(d) of the Mine Safety Act; (d) a flagrant violation under section 110(b)(2) of the Mine Safety Act; (e) an imminent danger order under section 107(a) of the Mine Safety Act; or (f) a proposed assessment from the MSHA.

In addition, during the year ended December 31, 2017, we had no mining-related fatalities, we had no pending legal actions before the Federal Mine Safety and Health Review Commission involving a coal or other mine, and we did not receive any written notice from the MSHA involving a pattern of violations, or the potential to have such a pattern, of mandatory health or safety standards that are of such nature as could have significantly and substantially contributed to the cause and effect of coal or other mine health or safety hazards under section 104(e) of the Mine Safety Act.