

APPENDIX



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The appendix provides supplemental information to the Waste Management 2018 Sustainability Report, which is available at www.wm.com/sustainability.

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BETTER COMPANY

Economic Impact

NON-GAAP MEASURES

The “Economic Impact” section of our Sustainability Report presents Adjusted Income from Operations, Adjusted Operating Margin, Adjusted Operating EBITDA, Adjusted Operating EBITDA Margin, and Adjusted Earnings Per Diluted Share (Adjusted EPS), each of which exclude certain items affecting comparability of our results and are not defined by generally accepted accounting principles (GAAP). We believe that non-GAAP measures provide useful information to investors by excluding items that the company does not believe reflect its fundamental business performance and/or are not representative or indicative of our results of operations. The company defines Operating EBITDA as income from operations before depreciation and amortization.

The “Economic Impact” section of our Sustainability Report also presents Free Cash Flow, which is a non-GAAP measure. The company discusses Free Cash Flow because we believe that it is indicative of the company’s ability to pay its quarterly dividends, repurchase common stock, fund acquisitions and other investments and, in the absence of refinancing, to repay its debt obligations; however, the use of Free Cash Flow as a liquidity measure has material limitations because it excludes certain expenditures that are required or that the company has committed to, such as declared dividend payments and debt service requirements. The company defines 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).

Non-GAAP measures should not be considered a substitute for financial measures presented in accordance with GAAP. Operating EBITDA and Free Cash Flow may not be comparable to similarly titled measures reported by other companies. For quantitative reconciliations of non-GAAP measures to the most comparable measure calculated in accordance with GAAP, please see the financial tables accompanying Waste Management’s [press release](#) dated February 15, 2018, announcing full-year 2017 earnings and comparisons to 2016.

Governance

How we govern and manage our own company and footprint raises issues vital to the communities in which we operate, the people we employ and the customers we serve. How we address these issues is also vital to demonstrating the sincerity of our commitment to sustainability. While many companies work hard to protect the environment from their business, at Waste Management, protecting the environment **is** our business. That’s why our sustainability strategy is fully integrated into our governance and management systems and reflected in a set of ambitious sustainability goals.

Following is a discussion of the governance and environmental management systems that help us both to deliver services with the highest environmental standards and identify emerging opportunities to capture additional value from waste streams. Additional information on our governance strategies is posted on our [website](#).

Eight members serve on the Waste Management Board of Directors, seven of whom, including the Chairman of our Board, are independent as defined by the New York Stock Exchange. The Board Chairman has been non-executive and independent for 14 years. Waste Management's President & CEO is the eighth director. Board members are each elected annually. There are three standing committees: The Audit Committee, the Management Development and Compensation Committee, and the Nominating and Governance Committee. Our Board of Directors does not delegate responsibility for sustainability and corporate responsibility to a committee; rather, such issues, including recycling, fleet optimization and energy are integral to our business, and aspects of these issues are discussed by the full Board of Directors at every meeting. Our Board of Directors' biographies, committee charters, and our governance guidelines are posted on our [website](#).

BOARD OF DIRECTORS DIVERSITY

The Nominating and Governance Committee seeks Board candidates who bring a variety of perspectives and industry knowledge relevant to Waste Management's business. Candidates are evaluated for personal and professional integrity and sound judgment, business and professional skills and experience, independence, potential conflicts of interest, diversity and potential for effectiveness in serving the long-term interests of shareholders. While there is no formal policy with regard to weighing diversity in identifying director nominees, the Nominating and Governance Committee considers diversity in business and professional expertise, as well as gender and ethnic background, when evaluating director nominees. The Committee considers a matrix of experience, skills and expertise when identifying candidates.

Before being nominated, director candidates are interviewed by a minimum of two members of the Nominating and Governance Committee, including the Non-Executive Chairman of the Board. Of the current directors, two are female, one is Hispanic and one is African-American.

Strategy and Management Processes

Environmental excellence and compliance are hallmarks of sustainability and core elements of our management framework. An important tool for integrating sustainability into our business has been our strategic business framework, which includes "scorecard" tracking of key metrics to reinforce alignment with key objectives. (See figure on [page 139](#).) Using this performance framework, we align stakeholder perspectives and market opportunities that will guide the entire organization for the year and beyond. Compensation is affected by alignment with company goals (including, as applicable to a business unit, sustainability goals), and compliance and sustainability are part of our performance review structure.

Our senior leadership uses this performance process to ensure that our entire organization (field operations and staff functions) focuses on strategic objectives. The measures also assist with legal and regulatory compliance and support environmental performance, stewardship goals and promotion of our values.

Strategic Planning Process



OUR PERFORMANCE EVALUATION PROCESS

1. When establishing our strategic objectives, we take into account the perspectives of our customers, shareholders, employees, community members, regulators and other stakeholders, as well as our performance against key internal metrics and our reputation as measured with key audiences. We often employ “heat maps” that identify the geographic scope and intensity of risks and opportunities.
2. and 3. We align our major financial, operational, environmental, community, people, safety, compliance and customer objectives with those specific companywide programs and initiatives that have been approved and funded as critical to achieving our strategic objectives. Performance expectations are communicated throughout the organization, and senior leadership assigns quarterly and annual targets to which our field operations are held accountable.

An ongoing initiative focuses all employees on knowing our customers better, optimizing assets, innovating in technologies, creating more efficient systems and extracting maximum value from the waste stream. Notably, this initiative closely aligns with our 2038 sustainability goals.

4. We set targets as part of our annual budgeting process. The targets represent commitments we have made to our stakeholders and include improvements and metrics that are factored into employee evaluations. For example, targets have been created on the following topics:
 - › **Financial:** Traditional financial measures that our investors have found to be important to our success.
 - › **Customer/Community:** Customer engagement, improving customer interactions and service, and our community relations programs. We seek to improve Waste Management’s reputation by developing and maintaining strong community partnerships and measuring our reputation among key stakeholders.

- › **Process:** Efficiency and cost-per-unit measures across our collection, disposal, recycling and waste-to-energy operations.
 - › **Compliance:** Our primary safety measures and overall environmental scores.
 - › **Learning and People:** Employee engagement, recruitment, development, retention and training.
5. Our operations at all levels report progress in reaching the targets. At the corporate level, monthly and quarterly reports are prepared and presented to the Board of Directors at each of its meetings. There are Monthly Business Review and Quarterly Business Review meetings to continually engage layers of management on progress toward company goals. This format and target-setting process (using specific key performance indicators) were integrated into our annual performance planning process to ensure consistency among strategy, performance planning, and performance measurement and accountability.

SUSTAINABILITY OVERSIGHT

Waste Management's sustainability service offerings are discussed at most Board of Directors' meetings because these services are linked so closely with company strategy. Topics discussed include recycling goals; market conditions and operations; generation of renewable energy; and innovations in operations to increase efficiency and provide environmentally superior service. Customers' sustainability goals (e.g., waste reduction, recycling and materials reuse, expansion of renewable energy capacity) are discussed annually during Waste Management's Senior Leadership Team's strategic planning meeting.

The Audit Committee of our Board is responsible for assisting the Board in monitoring the company's compliance with legal and regulatory requirements. Accordingly, the Audit Committee and the Board regularly receive environmental, health and safety compliance reports from management. Our Compliance Audit Services department supports these efforts and oversees compliance audits at all company-owned, -operated and -controlled facilities and operations.

For more than nine years, Waste Management's annual strategic planning initiative has included benchmarking of national accounts and municipal customers to determine the scope and nature of our customers' sustainability goals. Our formal materiality review for this report has been incorporated into this benchmarking. The Senior Leadership Team reviews this data to ensure that new developments in sustainability are an integral part of our business strategies. This strategic planning process has proven valuable over time, helping to identify trends that were a key factor in our decision to acquire new recycling assets in 2011 and 2012, to shift our focus in 2014 and 2015 to the efficiency and productivity of our recycling network, and to concentrate in 2016-2018 on contamination in recycling — how to avoid it and how to accommodate contaminants within a sustainable recycling financial model. In early 2018, a multi-disciplinary task force of Waste Management executives reported to the Senior Leadership Team on opportunities to grow the sustainability-oriented aspects of our business, including not only our public and private sector customers, but ESG-focused investors as well. The task force's report reflected detailed interviews and documents reviews from employees, customers, NGOs focused on sustainability, and investors.

Risk Management

Waste Management's executive officers have primary responsibility for risk management within the company. The Board of Directors oversees risk management to ensure that the processes designed, implemented and maintained by our executives are functioning as intended and adapted when necessary to respond to changes in the company's strategy as well as emerging risks. The primary means by which the Board oversees our risk management processes is through its regular communications with management and by regularly reviewing our enterprise risk management (ERM) framework. We believe that our leadership team's engagement and communication methods are supportive of comprehensive risk management practices and that the Board's involvement is appropriate to ensure effective oversight.

At the company level, Waste Management uses an ERM process involving senior leaders and subject matter experts from all major divisions to assess the materiality of all risks across the enterprise. Facilitated by our Treasury & Risk Management department, a standardized risk profile created for each headline risk is submitted to the Senior Leadership Team (SLT) and the Board of Directors. If a risk is identified as a Priority Risk, it receives a more granular assessment, including additional risk quantification and elevation for further discussion with the SLT and the Board of Directors.

Risks and opportunities are prioritized according to (financial) impact, likelihood (of event), outlook (of risk exposure) and confidence (in risk management). The executive team that manages our ERM reporting to the Board reviews all submissions for consistency in determining scope of impacts, as well as comprehensiveness in determining the adequacy of current support by internal staff, the sufficiency of financial support for contractors or mitigation measures needed to manage and reduce risk, sufficiency of legal support, and the extent and sufficiency of third-party consulting support. All headline risks have a standardized scorecard which includes individual ratings for sub-risks, identification of whether any sub-risk is a Priority Risk, forward-looking action plans with measurable indicators and progress updates on action plans from previous assessments.

The environmental impacts, risks and opportunities, including climate-related, that may be presented to our carbon reduction service lines are discussed each year. Waste Management's Digital organization briefs the Board twice a year on potentially disruptive technologies, sometimes related to customer expectations with regard to carbon reduction services. Moreover, the staff working on the ERM documentation coordinate with those drafting the risk factor description for the Annual Report on Form 10K to assure thoroughness in response.

The recycling industry provides a clear example of transitional risk. The potential adoption of extended producer responsibility legislation at the state level puts national curbside recycling at risk, and China's policy decision to halt imports of recyclables has an impact on commodity pricing. Both impact life cycle greenhouse gas (GHG) reduction benefits associated with recycling and meeting sustainability goals for Waste Management and our customers. This complex risk and opportunity was analyzed and discussed by the SLT and the Board, who determined Waste Management should be a sector leader, engage customers, and educate consumers and customers. Waste Management therefore created a focused campaign to engage our customers, both municipal customers and commercial and industrial customers, by providing information necessary to maximize GHG reductions to be achieved by effective (contamination-free) recycling of the commodities providing the greatest life cycle reductions

at the lowest cost. Results are ongoing, but we estimate that our educational campaigns reach approximately 90 percent of our total customers. Our Recycle Often. Recycle Right.® campaign shows that our municipal customers with demonstrated long-term commitments to public recycling experience a 10 percent contamination rate versus the national average of 25 percent. In 2017 we reduced our contamination throughout our portfolio of recycling facilities. In addition, we are engaging with our customers during contract discussions to assure partnership to reduce contamination and increase quality.

The ERM process is supported by regular inquiries of the company's Senior Leadership Team and additional members of management, including operations leadership, as to the risks, including emerging risks, that may affect the execution of our strategic priorities or achievement of our long-term outlook. We identify a number of risks that we believe could affect our business and financial statements for 2018 and beyond in our [Annual Report](#).

Key areas of assessment include:

Technology. Waste Management's Digital and Corporate Venturing departments provide risk mitigation regarding new technologies that would affect the company's business model. The SLT is updated quarterly formally and on an ad hoc basis in between. The SLT sets priority areas. The Board of Directors is briefed at least once a year, with an emphasis on identification and strategic planning regarding technologies potentially disruptive to the company's business model.

Waste Management has direct investments in third-party companies that possess promising technologies and business models that could change the competitive landscape in the markets in which we compete. These investments match our current expertise, particularly in current sorting and waste conversion technologies as well as complex logistics and local market analysis, with the developers of new and potentially disruptive technologies.

Additionally, Waste Management is invested in three venture capital funds in North America and Europe that provide us with visibility into emerging "Cleantech" technologies.

Waste Management, through its Corporate Venturing department, reviews approximately 100-150 companies annually, looking for technologies and business models that could improve our cost competitiveness and help us and our customers/communities achieve sustainability goals regarding waste reduction/consulting, upcycling, recycling, waste conversion, fleet emissions reductions and green energy production.

As Waste Management seeks to expand its business and modify its traditional business model to address local, state or federal policies and requirements, the Corporate Venturing department maintains a large database, derived from global sources, that routinely provides information to key Waste Management line managers about the efficacies of an array of technologies offered by competitors. Subject to nondisclosure agreements, this information can be used by officials and regulators to help shape public policy on the environment by providing real-time data on testing, performance, verification and economics of environmental technologies.

Legislative/regulatory risk and opportunity. Corporate Public Affairs and Area Government Affairs report biweekly and confer monthly on key legislative and regulatory developments affecting Waste Management's business. In an annual strategic planning meeting, in-depth discussion of priority issues helps identify strategic legislative and regulatory risks and opportunities that we plan to address. A central Public Policy team is charged with managing risk on priority issues affecting the company entity-wide. Public Affairs and Area Government Affairs staff survey risks and opportunities in terms of likelihood, severity and financial impact, and specific risk-management goals are set and tracked through the company's formal performance management system. Key risks addressed in 2017 included the economics of recycling, potential emergence of disruptive technologies or materials management frameworks, federal and state climate change programs benefiting or challenging Waste Management service offerings, and barriers and incentives to Waste Management's attempts to transition its fleet from diesel fuel. In 2017, the Board of Directors was briefed on Waste Management's extended producer responsibility strategy along with the company's government affairs update.

Operational risk. Continual assessment of potential risk associated with current technologies and structures is provided by engineering and environmental management specialists. For a detailed account of this system, read a discussion of Environmental Management Processes and Systems in the Operations Appendix. Waste Management is a founder and current Research Council member of the Environmental Research and Education Foundation, which focuses on sustainability performance, environmental stewardship and higher-process knowledge within the environmental service industry. In 2017, we undertook best-practice, third-party benchmarking and have committed to communicating our resulting programmatic goals and progress to the Board periodically.

Employee safety and health. Our Safety personnel employ risk matrices to review and create mitigation plans for identified health and safety risks, continually updating based upon new information. Depending upon the severity of the consequence of the risk and its likelihood, the department manages according to a hierarchy of controls, eliminating the highest risk and utilizing interventions to limit exposure to risk where appropriate.

Reputation and reporting accuracy. As a service organization, Waste Management relies upon its reputation for reliable service, compliance, safety and sustainable innovation. Managers receive daily clips reporting the reputational footprint of Waste Management and our competitors. These insights are supplemented by field staff focused on gauging reputation and accurate representation of the company in all major markets. Communications on sustainability topics are coordinated centrally with a cross-functional team also charged with sustainability disclosure (including Communications, Public Affairs, National Accounts and Waste Management Sustainability Services), including response to RFPs and supply chain sustainability questionnaires with consistency and accuracy. Trends identified in customer and stakeholder questions and feedback are then inputted into the risk management process.

New acquisitions evaluation for environment, health, safety and social indicators. Waste Management's acquisitions are almost exclusively in North America, and our risk assessment procedures reflect our ability to rely upon the rigor of national environment, safety and human rights law. Most acquisitions are subsumed into existing Waste Management operations and management and become fully subject to Waste Management standards and policies, including our Code of Conduct and its monitoring. Employees of acquired companies are onboarded as new Waste Management employees, subject to our mandatory enforcement of immigration laws and company background checks and drug screening. In the less frequent event of a stock acquisition, we look closely at the seller's employment, labor, safety and working conditions (including working hours, overtime, benefits, compensation), both in terms of meeting Waste Management's standards and practices and in terms of potential liabilities for past practices. The Legal and Human Resources department are active members of the due diligence team. With regard to safety metrics, Waste Management senior staff are active in engaging with ANSI Z245 standards for our industry. ANSI Z245 standards are voluntary, but many — including those that are the basis for Waste Management policy and procedures — have been adopted into federal OSHA regulations.

Recycling market risks. Waste Management has invested in the assets to meet customer demand for recycling and waste reduction, with costs of processing and recovery through commodity sales as part of our economic model. As a result, our exposure to commodity prices has created a risk that can impact revenues by hundreds of millions of dollars. Waste Management Recycling is acting to mitigate the commodity risk through sales practices and contract terms. The recycling export team moves material to customers in China, India, Europe, North America and South America in an effort to diversify the price risk and ensure that markets remain in balance. During a period of low commodity prices in 2012, we began the multi-year process of changing contracts to prioritize increased transparency and cost sharing in our contract language to ensure movement of material, utilize market pricing on inbound material and mitigate our commodity risk. Customers are asked to pay processing fees for recycling their material with the remaining value split by both parties. These new terms may limit some upside benefits, but the risk mitigation protects Waste Management from the risk of volatile commodity prices. Moreover, this more transparent pricing policy strengthens our ability to withstand sustained down markets in commodities and retain core recycling capacity.

Municipal contracts. Waste Management's Finance department conducts ongoing, in-depth audits on large contracts annually. A separate audit team manages SOX Contract 7 compliance on all new or renewal contracts with over \$1 million in annual revenue. We have contract compliance teams in franchise markets who proactively audit all contractual requirements, reporting, fee payments, billing, etc. Our Public-Sector Services department employs a financial model going through multiple levels of approval up to the Senior Leadership Team. That model includes risk characterization factors such as market conditions, regulatory risks, etc.

TRAINING EMPLOYEES ON RISK IDENTIFICATION

Our Safety, Internal Audit, Internal Controls, Compliance and Enterprise Risk Management departments perform tailored trainings and information sessions to employees with the focus on building a culture of risk awareness and response. Risk identification and reduction is considered a core element of every employee's responsibilities.

Our Safety and Operations departments have integrated tools to support a culture of zero tolerance for unsafe behaviors and conditions. The objective is to conduct operations in a manner that engages our employees to be safe, operate efficiently, protect the environment and respect our neighbors. There are specific meetings by discipline area (Safety, Internal Audit, Internal Controls, Compliance and Enterprise Risk Management) and reporting tools (such as Safety's Incident Reporting Tool) to identify and report risks throughout the organization, and employees are encouraged to do so.

RISKS AND OPPORTUNITIES RELATED TO CLIMATE CHANGE

We report on the physical and financial risks and opportunities arising from climate change in our annual submission to CDP (formerly the Carbon Disclosure Project). Additionally, we discuss such risks and opportunities in our [Annual Report](#) on Form-K, filed with the Securities and Exchange Commission, under the headings “Regulations” and Risk Factors.” Our CDP disclosure can be found at www.cdp.net, <https://sustainability.wm.com>, and in our Annual Report. The key risks and opportunities are summarized below. Periodically, the Board is briefed on potential regulatory and market responses to climate change that may have near- or longer-term impact on our finances or the value of services we provide.

- › **Regulatory risks.** Emerging greenhouse gas (GHG) policies at the state and federal levels will likely affect our operations, though the nature of the impacts is uncertain. Regulatory programs to address reductions of GHG emissions will present significant challenges and opportunities for the company since we have operations that emit GHGs but also employ innovative technologies that reduce and prevent GHG emissions. We have active and ongoing engagement with federal and state regulators to identify and address potential regulatory changes, including new federal air regulations for landfills. Carbon tax proposals are unlikely to see activity until at least 2020. Waste Management engaged with fossil fuel customers on a plan that does not impair economic growth.
- › **Disaster preparedness.** To prepare for the possibility of extreme weather emergencies that have the potential to disrupt our business, we have instituted emergency contingency plans and staged emergency equipment and fuel to ensure continuity of service or a return to service in the shortest time possible. These plans are based on an assessment of the types of disasters that could affect each business region and the ways in which each type of disaster would impact our employees, business operations and community needs. Experience with recent extreme weather events has confirmed the adequacy of the plans.
- › **Changing customer preference/behavior.** Customer preference for Waste Management “green” offerings are unabated by varying federal approaches to climate change. The desire to plan for climate change and reduce GHG emissions has proven stable over time for both our public and private sector customers.
- › **Opportunities.** Renewable energy and GHG cap-and-trade policies could provide opportunities for Waste Management to develop additional landfill methane offset projects and waste-based energy projects. Similarly, emerging low-carbon fuel standards and other incentives allow us to realize benefits from our continuing investment in innovative alternative fuel technologies, including converting landfill gas to renewable natural gas and biodiesel. Finally, our recycling division provides indirect benefits as manufacturers turn to the use of recycled feedstocks to reduce their GHG footprint, thereby increasing demand and potentially price for recycled commodities.

Waste Management has participated in CDP’s assessment of corporate emissions and policies since 2004, and we review questions asked by NGOs, rating agencies like DJSI and Sustainalytics, and customer supply chain sustainability surveys to continually improve our responsiveness. Some of our significant investors discuss with us the ways in which we are evaluating our carbon footprint and the market opportunities for our low-carbon products and services. Many institutional investors inquire about negative impacts from various forms of regulation and legislation addressing GHG emissions, and they are looking at potential impacts to earnings.

Two members of our senior management team — the Senior Vice President, Operations, Safety and Environmental Compliance and the Senior Vice President and Chief Legal Officer — oversee the work of our carbon footprint and climate risk analyses. These senior leadership members report on various issues relating to our service offerings that address customer goals relative to climate change to our Board of Directors at least twice a year. The Board, in turn, provides them with strategic advice for the business.

Code of Conduct

Compliance with our Code of Conduct is central to our business success, and all employees of the company, as well as all officers and directors, are provided a copy or have access to it online. The Code provides standards for ethical behavior across the scope of our business, including providing equal employment opportunities, ensuring employee safety, maintaining quality in our services, honoring relationships with suppliers and vendors, preserving privacy and confidential information, controlling access to electronic information and equipment, and complying with all applicable rules and regulations, including those related to bribery and corruption (see our [Anti-Bribery Policy](#)). We also developed a specific [Human Rights Policy](#) which is aligned with and operationalized by our Code of Conduct.

Our goal is for all employees to receive training on the Code of Conduct within 60 days of joining the company and periodically thereafter. In 2017, 99 percent of employees completed Code of Conduct training. In addition to this training, the Integrity Helpline process and general investigations outcome statistics are shared with employees periodically, utilizing the company's internal newsletter and other internal communication methods. In 2017, Waste Management's Compliance and Ethics group increased its focus on enhanced compliance communications. Tone-from-the-top continues to be demonstrated through frequent messages from the Chief Legal Officer and the Chief Compliance and Ethics Officer to both the Senior Leadership Team specifically, as well as to all employees in general. Communication plans for 2017 and 2018 were developed and implemented. These plans include messages describing Waste Management's culture of compliance; its Compliance Strategy, Mission, Vision and Standards that relate to all areas of our business; our "Speak Up" culture; and topics targeted for managers — such as immigration compliance. In 2018, we also benchmarked best practices for Code of Conduct communications, and a cross-departmental team led by the Chief Compliance and Ethics Officer is refreshing our Code for readability and ease of use.

In 2018, Waste Management created several cross-departmental committees to promote a culture of compliance and ethics throughout the company. These committees include a Compliance Training Committee and Compliance and Ethics Steering Committees for Safety, Environmental and Employment Practices.

Videos that provided employees an opportunity to see and hear from the Chief Legal Officer and the Chief Compliance and Ethics Officer on the importance of compliance and integrity to the company's continued success were created and distributed. In addition to making the videos, both officers, along with other senior leaders from compliance-related areas, embarked on compliance field tours across the company, meeting with many field employees to understand their compliance concerns, to solicit their suggestions for improving Code of Conduct training and to further demonstrate the importance of compliance at Waste Management.

The Code applies to all employees, and signed acknowledgments are periodically required, attesting that each recipient understands the responsibilities outlined. We expect all employees to timely report any compliance or ethics questions, issues or concerns, as well as any possible violations of the Code of Conduct, Employee Handbook, internal policy or an external law, rule or regulation. Waste Management highlights a variety of internal reporting resources that employees can utilize when speaking up, which include their supervisor, human resources representative, any member of management, or a Waste Management employee in a different department such as Compliance and Ethics, Legal, Corporate Security, Safety, Internal Audit, or Environmental Protection. If an employee doesn't feel comfortable reporting an issue or concern to a Waste Management employee, or if they've previously raised an issue

and did not get a satisfactory response, they can contact the Integrity Helpline. It is maintained by a third-party where reports can be made anonymously, 24 hours a day, 7 days a week. Waste Management is committed to a Speak Up culture wherein when employees speak up, we will listen up and follow up. Any form of retaliation against any employee who speaks up in good faith is strictly prohibited. In addition, a Code of Conduct Questionnaire is sent to select employees, allowing them an opportunity to report any issues or concerns which may not have been previously reported or properly addressed.

Clawback Policies

Our Executive Severance Protection Plan contains a clawback feature that allows for the suspension and refund of termination benefits for subsequently discovered cause. Our equity award agreements also include compensation clawback provisions that provide that the employee refund any amounts received under the equity award agreements if the Management Development & Compensation Committee of our Board of Directors determines that an employee either engaged in or benefited from misconduct. Misconduct generally includes any act or failure to act that caused or was intended to cause a violation of the company's policies, generally accepted accounting principles or applicable laws and that materially increased the value of the equity award. Further, our Management Development & Compensation Committee has adopted a clawback policy applicable to our annual cash incentive awards that is designed to recoup annual cash incentive payments during a specified time period when the recipient's personal misconduct affects the payout calculations for the awards.

Supply Chain

Through our Procurement department, Waste Management has the opportunity to demonstrate our environmental and social commitments by making purchases with an awareness of our impact on the environment. We also have unique opportunities to work collaboratively with suppliers to help them cut waste, use recycled materials and leverage their expertise to help us reach our sustainability goals.

Our Procurement Policy defines value as "the best combination of quality, cost, delivery, service technology, sustainability and risk in equipment, materials, goods or services." For third-party waste service providers, we require environmental assessments that review compliance with all applicable environmental, health and safety requirements. (For a discussion of Waste Management's role in the global supply chain, visit www.thinkgreen.com/ceo.)

The Waste Management Supply Chain team receives training on the Procurement Policy and Procedures when the procedures are updated and new members join the team.

SUPPLIER CODE OF CONDUCT

Our suppliers are expressly bound by the [Waste Management Code of Conduct for Consultants, Contractors and Suppliers](#), which is included in all contracts for all significant amounts. This Code of Conduct has been amended recently with a provision referencing the United Nations Global Compact (UNGC), and our expectation is that all suppliers will respect UNGC principles. The provision is included in our master template that is used for both new and renewal contracts. Our Supplier Code of Conduct also is posted on wm.com to provide notice to all seeking to do business with Waste Management.

We conduct periodic business reviews with critical suppliers to ensure contract and Code of Conduct compliance. The Code includes these obligations:

- ▶ Strict bans on offering or accepting bribes, kickbacks, payoffs or other unusual or improper payments;
- ▶ A ban on making a political contribution on behalf of Waste Management;
- ▶ An affirmative obligation to be a good corporate citizen and a trusted and valued community partner and to safeguard the environment and natural resources;
- ▶ A guideline strictly limiting gifts and entertainment;
- ▶ An expectation of accurate books and records;
- ▶ A requirement to comply with all applicable laws and regulations; and
- ▶ An obligation to report all work-related incidents relevant to the contract immediately.

The Supplier Code of Conduct also lists a domestic and international Waste Management Compliance and Ethics Helpline number. The Code is monitored through the Helpline, which is available to all consultants, contractors and suppliers as a resource in case of questions. All consultants, contractors and suppliers are obligated to report any known or perceived violation of laws, regulations, Waste Management policies or our Code of Conduct. We reserve the right to audit and inspect supplier operations during the term of the contract and for a limited time after termination.

SUPPLIER SUSTAINABILITY RISKS

We work to minimize risks in our supply chain by analyzing our spending on all critical categories of materials, goods and services as part of our strategic sourcing and category management procedures. We manage critical categories within a documented process to ensure there are adequate numbers of suppliers in place for each critical category to guarantee supply. Critical suppliers are defined as those whose absence could jeopardize our business objectives. In 2017, we identified approximately 990 Tier 1 suppliers which, combined, account for 78 percent of our total procurement spend, and reviewed 100 percent of the suppliers for sustainability risk. We estimate that no more than 1 percent of Waste Management's supply chain expenditures involve purchases from companies located outside North America and Europe.

IMPROVING SUPPLY CHAIN SUSTAINABILITY

We work with our suppliers to envision a closed-loop supply chain by purchasing recycled products and supplying our vendors with waste materials that can be recycled into new products. The following are some examples:

- ▶ We have a policy of purchasing paper with a minimum of 30 percent recycled content.
- ▶ Where the market is available, we recycle our equipment by grinding up plastic garbage cans to make new plastic containers, reclaiming steel from scrap containers, repurposing used tires into cutting edges for scrapers and dozers, and having used oil recycled for other purposes.
- ▶ We use new products such as enhanced-longevity motor oil and new materials to reduce the weight of fleet trucks. We pay attention to the degree to which plastic containers can be recycled into other plastic containers and buy accordingly. All of our suppliers are working to increase the amount of recycled plastic in our products. Learn more about our fleet in the Operations section of this report.

- › Our Real Estate department oversees the deployment of recycled and energy-efficient materials in its Capital Projects and Construction Management Program, identifying vendors for controlled lighting and HVAC, occupancy sensors, recycled-content carpet and furniture, and low-emitting paints and adhesives.

The single-largest category in our supply chain spending in any given year is collection equipment and the fuel to run it (over 20 percent of total spending). We assess suppliers for safety standards related to compressed natural gas (CNG) and quality standards, such as ISO certifications. By mid-2018, Waste Management assessed all nine of our fleet partners for safety standards.

With our heavy equipment suppliers, we perform similar reviews, as well as supporting their development of product innovations such as alternative fuels in hybrid electric/diesel development. For nearly a decade, we have focused on equipment efficiency and innovations to reduce the GHGs associated with this aspect of our supply chain. Our truck fleet continues to transition from diesel to natural gas, cutting GHG emissions by 15 percent with each new truck. More than 80 percent of the trucks we purchased in 2017 had natural gas engines, and in 2017 we began a transition to trucks with the latest-technology “Near Zero” natural gas engines. We increased our use of renewable natural gas (RNG), created from landfill biogas, which further reduces our emissions by over 80 percent. Waste Management used RNG in 33 percent of our CNG trucks in 2017. In addition, we have worked for years with truck suppliers to develop ways to lightweight our vehicles, using new types of materials as technology develops and safety specifications allow. Waste Management has also been a leader in the use of hybrid vehicles, piloting them for use in our industry. We have the nation’s largest fleet of hybrid heavy-duty bulldozers operating at landfills.

Suppliers Partnership: Helping Preserve the Environment

In 2018, we asked suppliers to join us in biodiversity efforts by signing a commitment to undergo one pollinator project during the year under the Suppliers Partnership for the Environment’s biodiversity work group project.

As industry leaders, each of the companies involved has a unique opportunity to promote environmental conservation and sustainability across the automotive supply chain by working together to collectively achieve positive impacts on biodiversity, employees, and communities.

Partners this year in the Supplier Partnership for the Environment — along with Waste Management — included ERA Environmental Management Solutions, Ford Motor Company, General Motors, Heritage Interactive Services, Lear Corporation, Mobile Fluid Recovery, MPS Group, Tetra Tech, and Toyota.

Waste Management is very active with its largest suppliers on sustainability initiatives. Nearly half of these suppliers join with us as mutual members of associations working on worker safety, energy efficiency and renewable fuel, employee engagement, diversity in the workforce, biodiversity, water conservation, and good governance projects.

SUPPLY CHAIN STAKEHOLDER ENGAGEMENT

Waste Management believes that active engagement in business groups and broad-based stakeholder groups is one of the best ways to continually challenge ourselves to do better. Improving the sustainability of our fleet requires collaboration, such as membership in the National Clean Fleets Partnership. This partnership operates more than 1 million commercial vehicles nationwide, and it is committed to finding ways to improve the fuel efficiency of U.S. trucks. We are also members of the U.S. EPA's SmartWay Transport partnership and of the Energy Security Leadership Council of Securing America's Future Energy (SAFE), both of which are dedicated to improving heavy-duty vehicle efficiency and reducing emissions throughout the transport supply chain.

SUPPLIER DIVERSITY

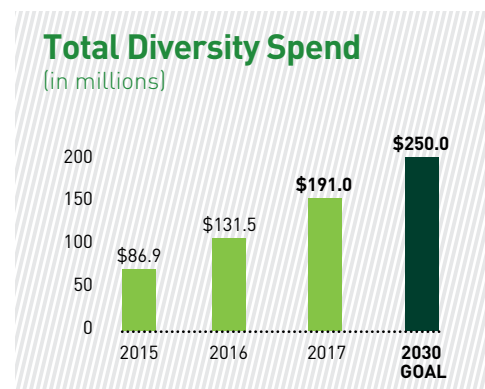
At Waste Management, we work to create an environment where everyone has an opportunity to succeed. As part of our commitment, we identify and reach out to underrepresented groups, such as minority-, women- and service-disabled-veteran-owned businesses, to work with us and add value to our supply chain.

Our ongoing supplier diversity program focuses on maintaining a balance between high levels of service, quality and competitive pricing, while assisting businesses that have been historically overlooked in the procurement process. The program ensures that these businesses participate in each bid process where such a supply base exists. In 2017, we purchased nearly \$191 million in products and services from certified diverse suppliers. In 2018, we set a diversity spend goal for 2030. Our tracking system is in place to begin reporting our progress on this important goal to highlight our commitment to diversity and our focus on nurturing women participating in our industry sector.

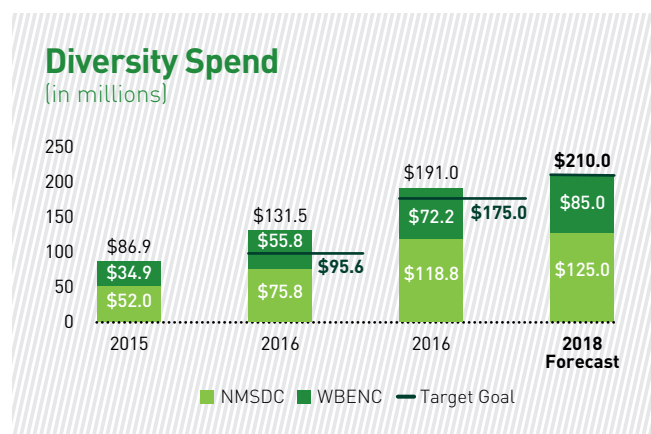
Moreover, we endeavor to have our suppliers pay forward our commitment to diversity purchasing. All our Product and Service Agreements contain language that promotes our diversity program. The target is for our suppliers to have processes in place that encourage them to spend 10 percent of the total dollar amount of related purchases of services and materials with certified minority, women, veteran or other certified diverse suppliers.

Waste Management does not have an internal diversity certification program, but rather recognizes third-party public- and private-sector certifications, such as the National Minority Supplier Development Council (NMSDC) and the Women's Business Enterprise National Council (WBENC). In 2017, we conducted an audit of all registered minority-owned businesses for the purpose of:

- ▶ Tracking and reporting our spend with diversity suppliers accurately;
- ▶ Ensuring that registered diversity suppliers have current certifications on file with the NMSDC or the WBENC and their Regional Partner Organizations;



We are on pace in 2018 to exceed our 2017 diversity spend.



- › Bringing high-potential diversity suppliers together with our category managers and area procurement managers; and
- › Identifying strong diversity suppliers who can potentially support us by leveraging other companies with well-developed programs that have identified their base of relevant diversity suppliers.

The audit allowed us to ensure our database is up to date, and that all registered minority-owned businesses have the proper certification on file. Additionally, a new process was introduced so that suppliers can update and upload diversity certifications. This process also sends an automated email reminder from our TSMS system prior to expiration of certificates.

Public Policy

STANCES ON KEY POLICY ISSUES

The environmental services industry is highly regulated and complex. And it's in flux. Increasingly, Waste Management is doing much more than managing waste. We are producing energy, restoring habitats and helping local governments and citizens to reduce, reuse and recycle materials. As we work with our customers and the communities we serve to create a more sustainable future, we believe we have an important voice to add to the discussion around several key policy debates, as noted below.

These issues represent significant challenges for our industry and are areas of special focus for Waste Management. We welcome engagement from stakeholders around these issues and strive to work with representatives from government, the business sector, community groups and environmental advocates to build consensus for positive change.

RENEWABLE ENERGY

In the absence of federal clean-energy standards, state and provincial governments in the United States and Canada bear the burden of developing renewable energy requirements. This has resulted in widely divergent standards. Waste Management supports the development of a federal energy policy that would facilitate the widespread development of renewable energy sources, including municipal solid waste. Federal energy standards would also allow us to make significant strides in reducing GHG emissions associated with fossil fuel consumption.

ENERGY SECURITY AND ALTERNATIVE FUEL PRODUCTION

Achieving energy security relies on lessening our dependence on foreign oil, and domestic production of fuel from renewable sources contributes to this goal. As a partner in energy security discussions, Waste Management supports policies, including existing federal renewable fuel standards, that encourage and facilitate the production of fuel from renewable sources such as municipal solid waste, as well as tax policy that encourages development of alternative fueling infrastructure, and the conversion of diesel vehicles to cleaner-burning natural gas and renewable natural gas from waste. Studies have shown that waste-derived fuels typically have the lowest carbon intensity of all biofuel sources.

NATURAL GAS AND ALTERNATIVE FUEL VEHICLES

Waste Management's fleet policy calls for a transition to natural gas vehicles. Further, we are transitioning to renewable natural gas (RNG) fuel in our natural gas trucks. This transition is necessary to achieve our goal of offsetting the emissions of our own operations by four times while increasing the emission reductions that we provide for ourselves and our customers.

In 2011, we encouraged federal and state regulatory support for the transition of heavy-duty fleets to natural gas as the preferred fuel for our industry. The natural gas vehicle platform provides an opportunity to use RNG derived from waste materials, further improving air quality.

SUSTAINABLE MATERIALS MANAGEMENT

As we have sought to maximize the value of the material we manage, we have reviewed U.S. EPA's waste hierarchy — reduce, reuse, recycle, recover and then dispose — as well as state-level solid waste and recycling priorities. Our review revealed that regulations regarding solid waste, recycling, energy policy and renewable fuels often compete and produce unintended results. Newer technologies designed to divert material from landfills also do not fit neatly into U.S. EPA's hierarchy. As U.S. EPA and state governments address the environmental impacts of waste disposal, recovery and recycling, we encourage them to consider life cycle approaches that view waste not merely as a problem to be solved, but as a resource. Moreover, life cycle thinking highlights the measurable benefits of material management in its opportunities to reduce GHGs and use of energy.

In 2011, Waste Management funded the Sustainable Materials Management Coalition to discuss these issues, and the Coalition issued its report in July 2012. The Coalition — composed of representatives of business and industry, academic institutions, environmental and community organizations, and state and local government organizations — came together to develop consensus recommendations on the path forward for sustainable materials management. In 2013, the Coalition developed a second report urging stakeholders to use life cycle thinking to reduce the environmental footprint of products and services. Continuing our policy collaboration, the Coalition turned to how to improve the productivity of recycling and how to better communicate progress. That report was released in Fall 2016, and the Coalition members continue to reach out to other stakeholders about the importance of seeking and measuring sustainable materials management. The reports are available [here](#).

In 2017, the entire afternoon of the Waste Management Sustainability Forum was dedicated to a Sustainable Materials Management Workshop, with presentations and discussion on life cycle thinking. At the Workshop, over 100 stakeholders from across the supply chain brainstormed solutions for moving toward life cycle thinking in our industry.

Also, in 2017, Waste Management enlisted external experts to validate our multiyear life cycle thinking "Spectrum" project, which is an intensive deep-dive effort into the environmental and economic impacts of all the materials managed in our industry across the U.S. according to the services that we provide. This validation effort involved a third-party consulting firm to review the assumptions used in its Spectrum project, an academic institution to evaluate the process that was developed, and the academic institution as well as a nonprofit research organization to analyze the outcomes of Spectrum. The result of the validation effort supported and improved upon our original Spectrum Life Cycle Thinking results, which prioritize the efforts around waste reduction and recycling programs in the U.S.

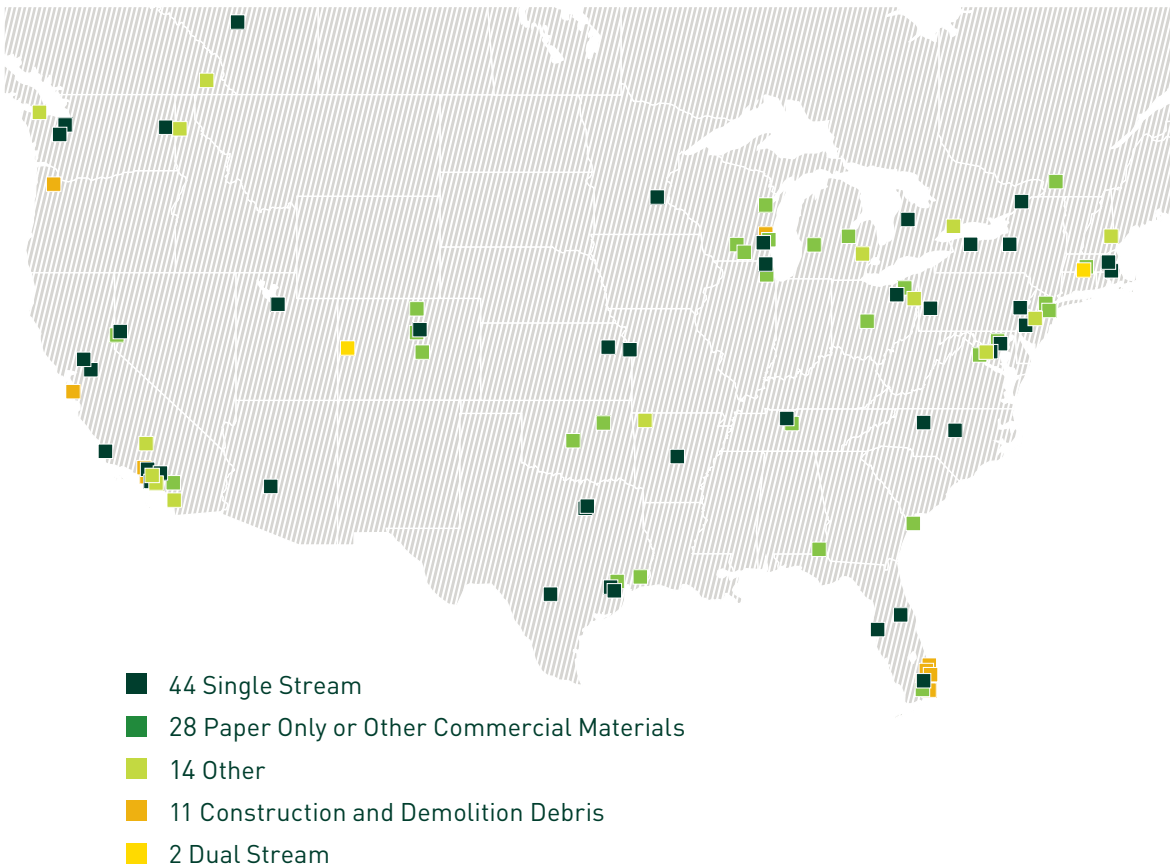
MANDATORY RECYCLING PROGRAMS AND POLICIES

Governments at all levels are seeking ways to divert waste from landfills through increased recycling and recovery. Some jurisdictions have implemented mandatory recycling programs, and we support such programs when they make economic sense, have the support of customers and communities, and reflect the planning and preparation sufficient to ensure success.

MANAGING STATE AND LOCAL POLICY DEVELOPMENTS

We have a broad recycling footprint across North America, with 102 total recycling facilities, 44 organics processing facilities, 44 organics processing facilities, four CORE[®] facilities and 11 construction and demolition facilities at the end of 2017. Our Government Affairs department coordinates information on recycling, its benefits and challenges, and innovations in state and local regulatory standards, as well as policies in support of the company's overarching goal to make recycling as environmentally productive as possible. Recycling, organics and waste reduction policies are largely driven by local and state initiatives, and it is important to participate and share experience wherever these policy debates arise.

Waste Management MRF Facilities by Location (12/2017)



INTERNATIONAL TRADE

As China implemented new policies restricting imports of recyclables, Waste Management worked with stakeholders including the Institute of Scrap Recycling Industries, the office of the United States Trade Representative, the US-China Institute and others to understand the policies and to help states, cities and other customers adjust their programs according to China's new policies. China's policies have global economic implications but are considered necessary if the country is to achieve its own environmental goals. We have worked with a broad range of industry stakeholders to develop short- and longer-term plans for managing the recyclables that can no longer be shipped to China.

CLIMATE CHANGE

Our CEO has set, and our Board has approved, aggressive sustainability goals with ambitious GHG emissions-reduction benefits from the time we formulated our sustainability goals in 2007. The scope of emissions-reduction activities available to a highly diversified company like Waste Management is vast.

Waste Management gives priority to implementing opportunities that have the best potential to deliver high degrees of emissions reduction at low cost or to deliver emissions reductions combined with a positive return. Our goal setting and disclosure of progress on production of renewable energy, recycling and fuel efficiency drive our investment strategy. This approach to addressing the challenges of climate change is integrated into the evaluation of all significant activities and potential investments — from collection fleet and logistics to administrative functions and operating facilities. For example, Waste Management has engaged collaboratively with U.S. EPA and state regulators, environmental organizations, and other public and private owners to develop technical information and recommendations on enhancing regulatory control of landfill gas emissions. Waste Management is working with U.S. EPA and the trade associations for public and private landfills on technical issues with current regulation of landfill gas controls that should facilitate the beneficial use of this renewable resource. Similarly, we continue to work with U.S. EPA, the U.S. Department of Transportation, engine and vehicle makers, fleet owners and environmental groups to provide recommendations on the next phase of fuel efficiency and GHG-reduction standards for heavy-duty trucks. We are hopeful that the new rules will provide a regulatory framework for our continued investment in clean-burning natural gas and potential electric and hydrogen powered trucks.

As evidenced by our participation in the CDP (formerly the Carbon Disclosure Project) since 2004 and disclosed publicly since 2008, Waste Management is committed to the annual disclosure of our carbon footprint and to reporting in our sustainability reports on the innovations we are pursuing to reduce GHG emissions in our operations and for our customers.

We are actively working with stakeholders from all perspectives to assess how GHG emissions can be accurately inventoried and disclosed, as well as how that information can be used in climate change initiatives that improve environmental quality and are consistent with a healthy economy. We participate not only with the CDP — and in 2017 were listed as a Climate Leader — but also with the Dow Jones Sustainability Index and numerous NGO and customer sustainability evaluation services. In 2018, we were honored to be named the Dow Jones Sustainability Index Sector Leader for Commercial Products and Services. We have also commented on federal, regional and state frameworks for addressing climate change. Extensive comments, all of which are a matter of public record, and recommended strategies have been discussed with the following:

- ▶ U.S. House of Representatives, Committee on Energy and Commerce
- ▶ U.S. House of Representatives, Committee on Science and Technology
- ▶ U.S. House of Representatives, Committee on Ways and Means
- ▶ U.S. Senate, Energy and Natural Resources Committee
- ▶ U.S. Senate, Finance Committee
- ▶ U.S. Environmental Protection Agency
- ▶ U.S. Department of Transportation Environmental Council of the States
- ▶ California Air Resources Board
- ▶ Western Climate Initiative
- ▶ Regional Greenhouse Gas Initiative
- ▶ Climate Registry
- ▶ Climate Action Reserve

In addition, in 2018 we were very active with all stakeholders and customers on the public dialogue surrounding recycling, its potential as a potent mechanism for GHG reduction, and the economic challenges facing the industry in 2017 and 2018.

Stakeholder Engagement on Policy Issues

Waste Management actively works with stakeholders that operate within our value chain, such as customers, employees and suppliers, as well as stakeholders outside our value chain, including industry peers and multistakeholder groups. We have regular open discussions about topics that are relevant to our operations and impact our society. These conversations play a key role in shaping how we execute our strategy, materiality and business strategy, as well as how we work to help improve our communities.

We take a systematic approach to stakeholder engagement, starting with public accountability. Every two years we identify the key stakeholders with whom we engage — from environmental and community groups to business and manufacturing leaders, from government associations to scientific academies. These stakeholders can be found across multiple sectors and within our communities. All are essential in helping us stay abreast of current trends, perspectives and policy matters that affect our industry, our customers and our communities.

Our engagement takes many forms. When working on facility upgrades and new construction, we map our community footprint and seek to engage groups and individuals in open dialogue through Community Advisory Councils or more informal routine interactions, open house events, public meetings, tours and more. With our larger customers, we host sustainability forums that focus on ways to reduce costs, lessen environmental footprints and increase the reuse of resources.

Participation in policy discussions supplements our dialogue at the local level and ensures that we are working with stakeholders from many perspectives. We give dozens of presentations each year on topics involving recycling, renewable energy and fuel, and civic engagement. Since 2011, we have sponsored multiple multistakeholder dialogues on the core issues affecting our industry and those affected by it, the road to more sustainable materials management, the way life cycle thinking can pave the way to better characterization of environmental impact over time, and ways stakeholders can achieve more recycling productivity. We believe there is enormous value in bringing together diverse viewpoints in a sustained effort to find common ground and mutual understanding of difficult environmental challenges.

Waste Management believes that disclosing our networks of memberships and associations working on policy issues is important. Our employees are enriched by broad interaction with stakeholders and informed dialogue on key issues like materials management, renewable energy, climate change and adaptation, responsible governance, conservation — and a host of other topics. For a full listing of associations and memberships, see Stakeholder Engagement in the GRI Index.

POLITICAL CONTRIBUTIONS

We periodically make financial contributions to candidates who we believe recognize the importance of the environmental services we provide and who support a fair, free-market approach as the best way to deliver cost-effective services. We do not expect the candidates to whom we contribute funds to agree with our positions on all issues at all times. Contributions made to political candidates must be authorized by our Government Affairs department and must comply with all applicable laws, including public disclosure of political contributions and lobbying expenses. Our contributions are reported under federal, state and local campaign finance laws and are available for review by the public. Following each two-year federal election cycle, our Board of Directors receives a detailed accounting of all contributions. Beginning in 2016, the company enhanced its disclosure related to political contributions, posting on its website an annual listing of contributions made to candidates for federal office and political organizations engaged in federal elections, as well as information on the portion of payments made by the company to trade associations and social welfare organizations that were used for political purposes, as identified by the trade association or organization. This information is available as Annex A to our Participation in the Political Process policy and is subject to certain dollar amount thresholds stated therein. The full policy and Annex A can be found on our [corporate website](#).

PUBLIC POLICY OVERSEAS

To ensure compliance with domestic and international law, Waste Management has adopted an Anti-Bribery Policy and established an Anti-Bribery Committee. All employees involved in foreign business projects must receive FCPA training. In addition, the Waste Management [Code of Conduct](#) includes a section on doing business overseas to ensure our compliance with local laws as well as U.S. laws that govern our activities in international markets. Note that 99.99 percent of Waste Management workers are located in North America.

BETTER OPERATIONS

Emissions

Energy reduction and GHG sustainability initiatives are deeply ingrained in our business, addressing our customers' needs, as well as serving as an integral part of our own operations.

The need to address climate change and GHG regulations is a primary driver of our customers' goals to increase recycling and use lower-carbon fuels. Most of our current and planned capital projects will lower GHG emissions in both our own and our customers' supply chains. As global competition for raw materials and fuel increases, sustainable solutions for managing materials will become a necessity, and, by offering sustainable, lower-carbon management options, Waste Management is becoming competitive in new areas and insulating ourselves from long-term losses.

We work hard to continually innovate in landfill management technologies, generating energy and reducing methane emissions.

Landfill Gas Emissions

CY2017	Million Standard Cubic Feet	
Landfill Gas Flared		45%
Landfill Gas Recovered		55%
Total Flow LFG (MSCF)	207,355,449.90	
Average CH ₄ (%)		47%
Total CH ₄ Flow (MSCF)	98,460,603.69	
Total Flared (LFG MSCF)	92,868,436.00	45%
Total Engine/Turbine (LFG MSCF)	95,202,075.60	46%
Total Other Beneficial Use (LFG MSCF)	19,284,938.70	9%

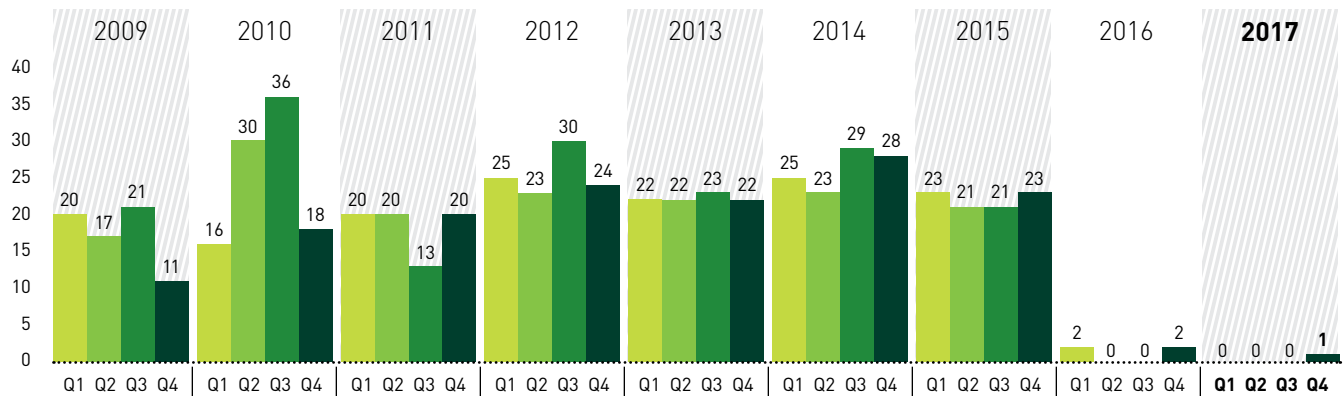
Other emissions: Based on the total amount of landfill gas recovered, Waste Management's operations generated 0.0000562 ton of NO_x, 0.0000076 ton SO_x and 0.000001 ton non-methane organic compounds (NMOC) per ton of solid waste handled at our facilities with gas collection in 2017.

Environmental Compliance

Our goal for environmental compliance is simple: zero deviations from regulatory standards and sound environmental practice. The goal of our Environmental Management System is to correct conditions that could lead to a violation before the violation happens. We have not yet achieved our goal of zero violations, but we continue to take every departure from regulations, no matter how small, very seriously.

In 2016 and 2017, Waste Management was cited for five violations that constituted formal enforcement action. The figure below charts our year-over-year performance — from 2009 through 2017 — with respect to environmental notices of violation (NOVs) received. For 2016 and 2017 we are using the metric recommended by SASB, formal enforcement actions alleged to have environmental impacts.

Number of Violations



Significant Spills

Waste Management is committed to reducing the number and volume of leaks and spills that occur as part of our operations. We track the volume of fluids our trucks use and train drivers to report any leaks or spills they observe; we also require all significant spills to be reported to the corporate office via the Environmental Incident Notification System. The chart at right summarizes all spills of a size significant enough that we were required to report them to the National Response Center.



Environmental Expenditures

As an environmental service infrastructure provider, our environmental expenditures are necessarily interrelated with our operations. These expenditures include compliance, environmental protection, control and research costs, as well as the capital and operating costs for our waste-handling options — from waste reduction and reuse consultation to recycling, waste-to-energy and disposal facility construction and operation. Our environmental expenditures for the reporting period are shown below.

Environmental Expenditures¹

YEAR	ENVIRONMENTAL COSTS (Millions)	TOTAL ANNUAL EXPENSES (Millions)	% OF ENVIRONMENTAL COSTS TO TOTAL EXPENSES
2010	\$3,999	\$10,339	38.7%
2011	\$4,181	\$11,256	37.2%
2012	\$4,490	\$11,798	38.1%
2013	\$4,644	\$12,904	36.0%
2014	\$4,521	\$11,697	38.7%
2015	\$4,050	\$10,916	37.1%
2016	\$4,165	\$11,314	36.8%
2017	\$4,399	\$11,848	37.1%

¹ Includes costs associated with the environmentally responsible management of waste and the creation of renewable fuel. Excludes costs associated with sales, general collection operational and administrative cost, merger costs and unusual items.

Carbon Footprint Calculation Methodology

Waste Management's carbon footprint comprises the anthropogenic Scope 1 (direct) and Scope 2 (indirect) GHG emissions from facilities and activities under Waste Management's operational control in the United States, the U.S. Territories and Canada, as well as Scope 3 (indirect) GHG emissions. Scope 1 emissions include direct emissions for process-based emissions from landfilling, power generation, fuel for support services and heating, fleet vehicles and refrigerants. Scope 2 emissions include indirect emissions from purchased electricity. Scope 3 emissions include purchased goods and services, capital goods, fuel- and energy-related activities (not included in Scope 1 or Scope 2), business travel, employee commuting and downstream leased assets. Our carbon footprint calculation relies on company operating data collected from auditable corporate business, legal and accounting records, which have undergone internal quality-assurance checks. Emission factors and methodologies are from the following sources:

1. U.S. Environmental Protection Agency (U.S. EPA), Mandatory Greenhouse Gas Reporting Rule (MRR), 40 CFR Part 98
2. EPA, Inventory of U.S. Greenhouse Gas Emissions and Sinks
3. EPA, eGRID Technical Support document, Chapter 3
4. ECCC, National Inventory Report 1990-2014: Greenhouse Gas Sources and Sinks in Canada (Part 3, Annex 13)
5. DOE, 1605(b) Voluntary Reporting of Greenhouse Gases Program, Technical Guidelines
6. DOE Energy Information Agency (EIA), Emissions of Greenhouse Gases in the United States, Documentation and Emission Factors
7. International Panel on Climate Change (IPCC), 2006 Guidelines for National Greenhouse Gas Inventories
8. International Panel on Climate Change (IPCC), Climate Change 2013: The Physical Science Basis. Fifth Assessment Report
9. International Panel on Climate Change (IPCC), Climate Change 2007: The Physical Science Basis. Fourth Assessment Report
10. Solid Waste Industry for Climate Solutions (SWICS) Protocol by SCS Engineers, version 2.2
11. EPA, Climate Leaders Program, Technical Guidance
12. World Resources Institute (WRI) and World Business Council on Sustainable Development (WBCSD), The Greenhouse Gas (GHG) Protocol
13. U.S. Community Protocol for Accounting and Reporting Greenhouse Gas Emissions, Method WW. 14

We participate in multiple forms of data verification. First, in conformance with applicable state or provincial GHG emissions-reporting programs, an independent third party is hired to review original data and provide a verification certificate. Accordingly, the emissions from the landfill subject to the Alberta Provincial Specified Gas Emitters Regulatory reporting program were third-party verified by RWDI AIR Inc. for 2014 and by GHD for 2015, 2016 and 2017. As for state reporting programs, Massachusetts modified its GHG inventory program to no longer require third-party verification of facility GHG reports effective as of third quarter 2015. Of the four landfills in California for which we are required to report GHG emissions, third-party verification is required for only one landfill. Analytical Environmental Service (AES) completed verification of the 2015 and 2016 mandatory GHG emissions report in July 2016 and 2017, respectively, as required by the State of California mandatory reporting program. All our facilities are subject to the federal Mandatory GHG Reporting Rule for 2017, which includes nearly 240 landfills that are subject to rigorous validation checks by U.S. EPA as part of its compliance assurance and enforcement program for the reporting rule.

In 2017, Waste Management again engaged Lloyd's Register (LRQA) to conduct a third-party verification of the company's 2016 carbon footprint. In 2018, Waste Management hired Environmental Services, Inc. (ESI) to conduct the third-party verification of the company's 2017 carbon footprint. Both verifications were conducted in accordance with ISO 14064-3:2006 specification with guidance for validation and verification of GHG assertions to provide limited assurance that the Scope 1, Scope 2 and Scope 3 GHG data was prepared in conformance with World Resource Institute/World Business Council for Sustainable Development GHG Protocol: A Corporate Accounting and Reporting Standard and the internal Waste Management Inventory Management Plan, First Edition. As a result, 100 percent of our carbon footprint is verified by a third party.

In a second form of verification, we report to a third party such as a government-affiliated data tracking program, which provides QA/QC to the data in some form but does not provide a verification certificate. Our transportation data is verified through the U.S. EPA SmartWay program; our GHG inventory from energy generation is verified by U.S. EPA; and our GHG inventory from California, reported to the California Air Resources Board, is verified by SCS.

Our GHG inventory reflects the most accurate means available to calculate GHG emissions within our industry sector. We worked with leaders in government, industry and academia — including staff of the multistate Climate Registry and the U.S. EPA — in developing our inventory processes and protocols.

Because a broadly accepted protocol for estimating the carbon mass balance of landfills does not yet exist, Waste Management, along with other public and private owners/operators of landfills, funded development of the Solid Waste Industry for Climate Solutions (SWICS) protocol by SCS Engineers. The protocol represents a first step in refining existing U.S. EPA models and protocols using peer-reviewed, published research to improve landfill GHG emission estimation. We employed the SWICS protocol in estimating the emissions associated with the landfill operations reported in our company-wide carbon footprint and the voluntary GHG reporting protocols in which we participate. (U.S. EPA's Science Advisory Board views some sources of biogenic carbon dioxide emissions — including landfill gas and biogenic materials in waste — as carbon neutral, so these are not included in our footprint.)

Beginning with 2013 emissions, we aligned our reporting with that of U.S. EPA, which continues to refine its default assumptions and scope of reporting under its mandatory reporting program. If we find that U.S. EPA's rule omits a facility previously included in our carbon footprint, we will calculate a default representing the proportion of emissions thereby omitted and increase the reported emissions included in our footprint to allow our emissions to be compared year over year. As part of this process of aligning our reporting with that of U.S. EPA, beginning with our 2013 emissions reporting, we are using the modified 100-year global warming potentials (GWPs) promulgated by U.S. EPA in its November 29, 2013, revisions to 40 CFR Part 98 (78 Fed. Reg. 71904). Pertinent to Waste Management's carbon footprint, U.S. EPA revised the GWP for methane from 21 to 25 and the GWP for nitrous oxide from 310 to 298.

Waste Management has contracted with Enel, a leader in energy intelligence software, to collect and pay utility invoices, as well as to track usage data as part of an enterprisewide utility bill management (UBM) program spearheaded by our supply chain procurement managers. The UBM system has the ability to track compressed natural gas, natural gas, propane, landfill gas, delivered heat and water service, and internally generated waste.

Information from the UBM program is audited prior to bill redirection by Waste Management to ensure correct processing of all future invoices. We review data through Enel's online dashboard and have the capability to run reports on consumption, cost and MTCO_{2e} on a facility, region, division, country and enterprisewide basis. With this new approach, our data collection and reporting program is more robust and transparent than ever before.

Through the UBM system, Waste Management can pull data by market area, which offers a base understanding of energy and water consumption patterns on a regional level. Our goal is to complete the enablement of all sites into the UBM system to understand baseline water consumption levels across all areas of our operations.

Our calculation of the potential GHG reductions or "avoided emissions" that our operations enable includes the following:

- ▶ Production of renewable waste-based energy that replaces electricity generated from fossil fuels.
- ▶ Potential avoided GHG emissions associated with annual production and use of renewable natural gas (RNG).
- ▶ Recycling of postconsumer materials (e.g., paper, aluminum and plastics) using U.S. EPA's [WARM](#) Model.
- ▶ Permanent carbon storage in landfills of biogenic materials that do not decompose in an anaerobic landfill environment.

Carbon storage in landfills can significantly offset GHG emissions from landfills as recognized by the United Nations Intergovernmental Panel on Climate Change, U.S. EPA's U.S. Inventory of GHG Emissions and Sinks, the Oregon Climate Trust and the California Air Resources Board — all of which recognize carbon storage in landfilled material as a "sink" in calculating carbon emissions inventories. We have used the SWICS protocol to calculate the amount of carbon permanently stored in landfills from the annual disposal of organic waste — i.e., carbon that will not decompose in the landfill to produce methane.

In 2014, we first prepared for review by the Board of Directors a benchmarking of companies projecting a cost of carbon, and we continue to update the Board on changes in Waste Management's footprint, with the ongoing obligation to update the Board in the event of a major change in customers' disclosed carbon pricing strategies. We review how carbon pricing models or cap-and-trade programs are applied in North America. We have concluded that because of the complex nature of our business and high variability in state approaches, with carbon emissions offset by carbon-reducing services like Waste Management Sustainability Services consulting, recycling, renewable energy production and carbon sequestration in landfills, the absence of a clear regulatory framework for carbon pricing for our sector makes price projections unreliable. Our assessment has been further complicated by recent U.S. position changes on climate strategy, and we monitor state government and customer response strategies closely. Anticipating a price on carbon is part of our initiative to change reporting on recycling productivity from tonnage to GHG reductions gained. We believe our ability to provide verifiable metrics on carbon reduction to our customers will be a competitive advantage.

Electricity Consumption Data by Region

MARKET AREA	ELECTRICITY kWh
Closed/Inactive Sites	9,042,736
Corporate Office	10,094,207
Waste Management of Ark Tenn Alabama Kentucky	17,058,050
Waste Management of Eastern Canada	27,690,110
Waste Management of Florida	38,427,979
Waste Management of Four Corners	24,727,360
Waste Management of Greater Mid Atlantic	63,698,537
Waste Management of Gulf Coast	27,494,075
Waste Management of Illinois Missouri Valley	40,680,897
Waste Management of Michigan Ohio Indiana	42,759,359
Waste Management of New England	25,208,012
Waste Management of Northern California	17,206,795
Waste Management of Pacific Northwest BC	28,016,007
Waste Management of South Atlantic	15,498,316
Waste Management of Southern California	27,495,319
Waste Management of Texas Oklahoma	32,436,817
Waste Management of Western Canada	4,356,018
Waste Management of Wisconsin Minnesota	31,839,040
Waste Management of WPA MD WV VA	45,659,236
Waste Management SBS	1,514,021
Total	530,902,891

Energy Consumption

	MWH
Total	7,628,999
Fossil Fuels	7,573,374
Renewable Fuels	55,625
Percentage Renewable	0.73%

Corporate Air Program

Waste Management established a Corporate Air Program function in the early 2000s. The Corporate Air Program is staffed by a Senior Director and two Directors who support the field operations with permitting and compliance obligations. The Senior Director reports to the Corporate Vice President of the Environmental Management Group. Waste Management also employs a field team dedicated to assist with California, Oregon, Washington, Hawaii and Alaska state-specific air permitting and compliance needs. This team consists of one field manager and several environmental specialists who assist field operations and coordinate with Corporate Air Programs to maintain consistency with federal rule implementation.

The Corporate Air Program creates, communicates and issues policies, procedures, best management practices, directives, guidance and strategies relating to the protection, control and management of air quality with field operations. The Corporate Air Program also creates and issues standard templates for recordkeeping and reporting GHG emissions pursuant to the USEPA and Canadian GHG reporting programs. Standard recordkeeping and reporting templates have also been developed and used by field operations to meet other applicable federal requirements such as New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP). The Corporate Air Program develops and delivers webinar and classroom training on air permitting requirements and recordkeeping and reporting templates to drive compliance with federal rules.

The Air Program's team develops short-term and long-term permitting and compliance strategies to accommodate existing site conditions and projected new or modified operations at our disposal operations. This includes assisting field operations with permitting beneficial use processes used to convert methane to electricity and renewable fuels.

The Corporate Air Program identifies local, state and federal regulatory impacts to Waste Management field operations. The Air directors interpret environmental data and provide guidance, direction and recommendations to field operations with preparing/reviewing compliance reports, permit applications and draft permits. The team interfaces with air regulators during the permit process and regulatory interpretative issues and supports field operations in responding to and resolving violations, warnings or other potential noncompliance issues.

Waste Management's Air Program also prepares/compiles and presents scientific data white papers and other technical support to facilitate changes to federal rules and guidance. Corporate Air Program directors coordinate with our field operations, as well as the legal and community affairs departments, to work directly with regulators at the federal and state level. Together, they facilitate changes to federal and state rules and permit conditions, as well as responding to proposed regulatory changes.

We also partner with industry stakeholders, academia and internal engineering to develop new and evaluate existing technology and processes to mitigate emissions from disposal operations such as combustion and conversion technologies, as well as leachate evaporation technologies. This includes supporting development and testing of emerging methane measurement techniques for landfill emissions.

Number of air emissions noncompliance incidents (formal enforcement only)

Two alleged violations with formal proceedings during CY 2017 (Douglas County/Pheasant Point and Stony Hollow).

1. March 2017/May 2018 — Douglas County/Pheasant Point received the initial proposed settlement letter from EPA Region 7 in March 2017. Site is finalizing settlement agreement with EPA Region 7; county alleges site did not have adequate gas collection coverage in certain parts of site per the federal NSPS WWW requirements.
2. May 3, 2017 — Stony Hollow, Ohio received Director's Final Findings and Orders (DFFO) from Ohio EPA regarding alleged odors and well temperature exceedances per NSPS WWW requirements. Interim Orders were issued November 28, 2016.

Containing Hazardous Substances

Waste Management owns six hazardous waste treatment and disposal facilities and one underground injection facility, subject to U.S. EPA's Toxics Release Inventory (TRI), a data repository compiled to inform the public about the presence of chemicals in their communities. In U.S. EPA's most recent inventory of TRI releases (2016), 3.44 billion pounds of chemicals were reported to have been released in the United States, 3 percent of which came from the hazardous waste management sector.

Even though TRI-reportable releases must be within levels authorized by permit or regulation, the TRI was initiated to provide a supplement to the permitting process that would provide communities with information about chemicals from all the facilities in their vicinity — those releasing emissions to air and water and those containing toxins within structures on their property. Disclosure of the total releases emitted in each community was intended as an indirect means of encouraging pollution prevention, and it has, in fact, served that purpose.

Volume of Toxic Chemical Releases by Industry (percent)

■ Metal Mining: 44%
■ Chemicals: 14%
■ Electric Utilities: 10%
■ Primary Metals: 10%
■ All Others: 9%
■ Paper: 5%
■ Food: 4%
■ Hazardous Waste: 3%



U.S. EPA continues to reiterate its view that increased quantities of TRI materials in containment can represent “a generally positive environmental trend because these facilities are in the business of managing hazardous waste and do so under strict controls.” For example, in explaining what TRI data mean to a community, U.S. EPA, in its most recent commentary about the TRI inventory, prioritized sites by subtracting emissions to land reported by RCRA Subtitle C regulated units because those units were considered to be physically controlling toxic releases rather than emitting them. Moreover, releases are reported differently based on whether they involve placement in RCRA Subtitle C landfills versus other kinds of landfills, in recognition of the stringent regulation of Subtitle C landfills. This distinction is continued in EPA's most recent [update](#), p. 16. Waste Management's emissions under TRI are [reported](#) annually to the U.S. EPA.

Continuing delays in obtaining permits for new units at two hazardous waste landfills have had two impacts: (1) a sharp decline in containment in the RCRA Subtitle C units on-site and (2) a corresponding increase in transfers off-site as new arrangements needed to be made to accommodate customer needs.

U.S. EPA reports the actual releases and containment at the seven Waste Management hazardous waste facilities as follows:

TRI Chemical Releases and Containment at Waste Management Hazardous Waste Facilities (in Pounds)

	2009	2010	2011	2012	2013	2014	2015	2016*
Air	19,047	62,128	19,838	2,246	8,258	15,017	13,300	15,401
Water	30	16	14	16	15.708	40.52	0	0
RCRA Subtitle C	34,040,988	24,479,007	26,143,719	24,214,088	21,930,366	19,280,924	23,822,274	32,276,337
Underground Injection	5,025,712	9,574,712	9,253,272	7,374,493	9,949,743	8,842,344	10,968,603	10,144,130
Transfer Off-Site to Treatment/Containment	71,948	171,240	111,704	124,394	580,720	523,149	296,284	160,623

*Note that we use U.S. EPA's official reporting on TRI for consistency in numbers; EPA's 2017 report was not available at time of reporting.

Also integral to Waste Management's focus on eliminating exposure to hazardous substances is our work with customers, using our experience in safely containing hazardous waste in our permitted facilities to work in-plant, on-site with industrial customers to eliminate, reduce and avoid potential exposures from hazardous waste at their facilities. Our Waste Management Sustainability Services employees work with customers to reduce the generation of hazardous waste at the outset, in the design process.

Commitment to the Built Environment

An ever-growing internal and customer focus on third-party authentications for health and wellness, green building and landfill diversion drives Waste Management to continually expand its commitment to LEED, WELL, TRUE and UL's zero-waste validation.

In 2017, Waste Management:

- ▶ Performed LEED 2009 Materials and Resources Credit 6 solid waste audits, LEED V4 Materials and Resources Prerequisite 1 evaluations, and other initiatives to help our customers achieve [LEED certification](#).
- ▶ Initiated offerings with a variety of certification tools and three WELL APs on our Sustainability Services consulting team to guide customers through the [WELL Building Certification](#) process, from registration and preliminary evaluations through feature support and recertification.
 - The WELL Building Standard is a rating system devised by the International WELL Building Institute (IWBI) that explores how design, operations and behaviors within the places where people work and live can be optimized to advance human health and well-being. Covering seven core concepts of health and hundreds of features, WELL is a flexible building standard and represents the future of modern design.

- ▶ Developed service offerings centered around the new [TRUE Zero Waste certification](#), with TRUE Advisors on our Sustainability Services consulting team.
 - TRUE Zero Waste certification is a rating system devised by Green Business Certification Inc. (GBCI) that enables facilities to define, pursue and achieve their zero-waste goals, cutting their carbon footprint and supporting public health.
- ▶ Maintained [UL Zero Waste validations](#) for the Waste Management Phoenix Open and GreenBiz.
 - The UL waste diversion validation program focuses on monitoring and measuring material flows that are not part of an organization's final product. UL offers four landfill waste diversion claim validations to recognize companies that handle waste in environmentally responsible and innovative ways — from energy production via incineration to reuse, recycling and composting.

These efforts demonstrate Waste Management's commitment to its internal transformation, as well as emerging trends in sustainability, while also helping reduce long-term negative environmental impacts.

Environmental Management

Environmental stewardship is the core of our business — our promise to customers, our competitive advantage and our obligation to the communities in which we operate. How we manage potential environmental impacts and opportunities is a critical element of being a sustainable enterprise. In a business as highly regulated as ours, protecting the environment, maintaining compliance and innovating to improve operations requires unwavering focus, expertise, comprehensive systems and internal checks and balances. Our approach has evolved over decades, with a focus on integrating environmental functions into key management systems. Information on our environmental policies, as well as on our management team, practices and training, is available on our website.

PROCESSES

We have a long track record of both supporting high regulatory standards and striving to go beyond them. Our environmental management approach has led us to undertake the following actions:

- ▶ Urge the U.S. EPA in 1991 to revise regulations implementing the Resource Conservation and Recovery Act's Subtitle D and to establish strong and prescriptive federal standards for managing municipal solid waste (MSW). We supported specific, rigorous, government-sanctioned and publicly reviewed standards to ensure environmental protection at all MSW landfills.
- ▶ Provide consistent encouragement to the U.S. EPA to consider revisions to the RCRA hazardous waste regulations with respect to the management of hazardous waste pharmaceuticals, including extensive feedback on the proposed "Management Standards for Hazardous Waste Pharmaceuticals Rule" published in the Federal Register September 25, 2015.
- ▶ Innovate beyond compliance. As part of Waste Management's internal formal performance review, the results of regulatory inspections, internal audits, external audits, and regulatory compliance issues and their precursors are all tracked, managed and remedied as part of the company's continuous improvement process. Members of senior management, up to and including the Board of Directors, review performance.
- ▶ Extend the company's commitment to environmental performance related to events that are not necessarily regulatory in nature but that, nonetheless, are public concerns, such as noise, litter and odors. Such events are tracked, managed and remedied in real time. We also employ best management practices and conduct routine training to eliminate the dissemination of dust from our facilities.

- › Test our internal systems to ensure their thoroughness and accuracy. We periodically conduct gap analyses of our Environmental Management System against the International Organization for Standardization (ISO) 14001 standards to ensure the sufficiency of our systems for landfills, transfer stations, hauling operations, waste-to-energy plants, hazardous waste treatment and disposal facilities and recycling facilities. These systems continue to be evaluated and supplemented as appropriate.
- › Certify all 1,387 facilities served by Waste Management Sustainability Services (WMSS) comport with the globally recognized ISO 14001 and ISO 9001 standards. WMSS's operations represent 67 percent of all the facilities either owned, operated or serviced by Waste Management*.
- › Audit the rest of our operations through an independent environmental audit team that employs nationally recommended compliance audit practices approved by the American Standards for Testing and Materials (ASTM) and the Board of Environmental, Health and Safety certification standards for professional auditors. Nearly all of Waste Management revenues come from operations subject to environmental management systems that are audited.
- › Test our facilities to assure stakeholders that our operations protect human health and the environment. Our environmental experts hold a number of patents on innovative monitoring and analysis technologies, and we often provide monitoring data to outside parties to evaluate how our systems are performing.

*Although 100 percent of Waste Management facilities are not ISO-certified, each is managed under an Environmental Management System, described below, that is benchmarked to ISO standards.

ENVIRONMENTAL MANAGEMENT SYSTEM (EMS)

1. ENVIRONMENTAL POLICY

Our Corporate Environmental Policy establishes the vision for our EMS. The Policy states, in part:

Waste Management is committed to protecting human health and the environment. This commitment is a keystone of all that we do, reflected in the services we provide to customers, the design and operation of our facilities, the conditions under which employees work, and our interactions with the communities where we live and do business. We will be responsible stewards of the environment and protect the health and well-being of our employees and neighbors. We have policies and standards for specific environmental and related aspects of our operations.

The following principles are applicable to company operations worldwide:

- › **Protection:** Conduct all operations in a manner that protects the environment and our employees, neighbors and customers. Proactively work to implement procedures and programs to prevent pollution.
- › **Compliance:** Comply with all legal requirements and proactively implement programs and procedures to ensure compliance.
- › **Conservation:** Practice and promote the conservation of nature and the earth's energy resources.
- › **Communication:** All Waste Management employees are responsible for helping the company identify and remedy possible violations. Suspicion of violations of law or Waste Management's Core Values of Ethical Conduct and Practices shall be communicated in accordance with the company's Business Ethics and Compliance Policy and Environmental Reporting and Incident Notification Policy.

The company has developed processes, procedures and tools for use in achieving its high standards for environmental performance and compliance. They collectively form the Waste Management EMS. The company's operations, across all lines of business, are responsible for implementation and adherence to the Waste Management EMS at each operating location. This applies to all business endeavors in which Waste Management has a 50 percent or more ownership.

Management regularly monitors operations and makes recommendations to the Board of Directors on programs to continuously improve the environmental performance of the company.

When necessary, environmental goals and objectives are established, reviewed and approved during management review. The Waste Management Board of Directors and executive management regularly monitor environmental performance to ensure adherence to the principles of this policy across the company.

2. PLANNING

Our EMS focuses on preventing, correcting and ultimately reducing impacts associated with our operational activities. Specifically, we focus on the following:

- › Eliminating environmental impacts, including spills or leaks from vehicles, landfill gas impacts on the air or subsurface and releases to surface water or groundwater;
- › Eliminating community impacts, including odors, litter, noise, dust, and spills or leaks; and
- › Eliminating regulatory impacts, including regulatory inspection-alleged issues, warning letters, violations and enforcement actions.

We also use several databases, systems and processes designed to help facility managers plan, implement, check and respond to their site-specific environmental requirements.

Legal and Other Requirements

Our EMS tools continually evaluate and determine what regulations, permit conditions and contract requirements apply to facilities. These tools include the following:

- › **CyberRegs.** An online source for all state and federal statutes and regulations
- › **Regulatory outreach.** Active involvement by our technical professionals in state and local activities associated with environmental regulation development and policymaking

Waste Management's environmental teams work closely with our Legal and Government Affairs departments, and they utilize the above resources to ensure that all facilities have access to relevant laws and regulations.

Objectives and Targets

We use indicators to quantify environmental performance, including:

- › Environmental impacts to the environment
- › Community environmental concerns and impacts
- › Regulatory violations

Our Environmental Incident Rate (EIR) measures our performance and tracks progress toward these goals at the facility level. The EIR is used to drive continuous environmental improvement on a year-over-year basis.

3. IMPLEMENTATION

Roles and Responsibilities

Our EMS relies on our corporate, geographic area and facility-level personnel with job-specific functions, roles and responsibilities for planning, implementing and evaluating the EMS components. The specific departments and personnel involved include the following:

- › **Environmental Protection (EP).** Develops environmental policies, tools and training, and provides strategic or technical advice, with the goal of 100 percent compliance. Oversees environmental performance and ensures environmental impacts and issues are resolved, including correction and prevention.
- › **Corporate Engineering Science.** Manages research and engineering science to develop an understanding of the interrelationships between our disposal processes and the environment.
- › **Environmental Engineering (EE).** Provides expertise in the planning and design of our facilities to ensure that operational activities have limited environmental impact. Performs annual planning and forecasting of life-of-site costs for our landfills, including Financial Accounting Standard 143 retirement obligations. The engineering and accounting controls exercised during this process are extensive and are subject to SOX 404 controls (from section 404 of the Sarbanes-Oxley Act) that are reviewed annually by independent external auditors.
- › **Air/Landfill Gas Management (AGM).** Develops and implements the corporate GHG and carbon emissions tracking and reduction strategies. Sets policies and standards. Is responsible for the planning and development of air quality and landfill gas management tools.
- › **Groundwater Protection (GP).** Provides expertise and direction on groundwater protection programs and ensures that environmental monitoring networks are installed and operating to specifications. Provides laboratory services that ensure accuracy and quality control in the analytical testing of environmental samples.
- › **Laboratory Services (LS).** Provides oversight and guidance to the commercial laboratories that support Waste Management's monitoring programs in order to manage risk associated with the analytical testing of environmental samples. Provides support to all facilities that collect certain routine environmental data as detailed by the Groundwater Protection Program.
- › **Waste Approvals.** Ensures permit compliance and safe and environmentally sound waste acceptance procedures and controls.
- › **Government Affairs.** Monitors and engages with key federal, state and local governmental entities to ensure that we are at the forefront of developing trends and regulations.
- › **Legal.** Provides guidance, support, and advice to our sites and market areas. Monitors compliance trends. Manages the company's process of analyzing the root cause of any failures.
- › **Site Managers and Front-Line Employees.** Are responsible for all environmental aspects at the site level, with key environmental tasks assigned to appropriately trained local staff.

Training

Waste Management recognizes that in order to achieve environmental performance goals, employees must possess the knowledge and skills to manage and conduct operations in environmentally responsible ways. Our environmental training targets a range of operational and functional levels within the company. All new employees participate in corporate ethics and compliance training, which includes our company's standards for environmental practices. Corporate and local staff with responsibility for environmental leadership are trained in the company's environmental practices.

Employees with environmental leadership responsibility are provided training through the following programs:

- ▶ **Talent Central Learning Portal — Environmental Protection Learning Series (EPLS) online modules.** Monthly online site management trainings on a different environmental subject each month. Completion is mandatory, and knowledge is tested and tracked.
- ▶ **In-person training sessions.** On-site trainings conducted by our field EP and/or operations professionals for facility management and technical staff on environmental and compliance subjects.

In addition, Waste Management has environmental training programs targeting operational and functional levels. Our Environmental Compliance Awareness Program (ECAP) provides mandatory monthly training for front-line employees and managers, covering a different environmental subject each month. Knowledge is tested and tracked at the site level. Monthly topics are aligned between these programs whenever possible.

Local training is also provided periodically via in-house classroom training, on-the-job training and outsourced training. In addition, staff with responsibilities related to specific environmental requirements for our operations sometimes need job-specific training, which is provided to employees and managers at all Waste Management operations. We have instituted Landfill GHG worksheets that must be completed by all on-site employees, and we offer a Gas Collection and Control System Design and Installation Guidance Manual to ensure landfill employees are utilizing best practices. For more on our employee training, see the Workplace Appendix. We also provide training to customers, for example on DOT hazardous waste handling requirements.

Communications

Communicating environmental commitment and performance to our customers, communities, regulators and investors strengthens our ability to be an environmental leader in our industry. Internal communications regarding environmental commitment and performance help to create an atmosphere where all employees work toward the common goal of continuous improvement.

We communicate our environmental commitment within the company using the following methods:

- ▶ Waste Management's Environmental Incident Alert Notification System gives immediate, companywide notification of significant environmental or regulatory events — including reportable quantity (RQ) spills, environmental impacts (e.g., stormwater, leachate), alleged violations and enforcement actions.
- ▶ Waste Management's CASES Database and Public Commenter Systems provide real-time notification of any customer-related environmental issues to site managers for response and resolution.

- › Environmental performance results, including the following impacts, are tracked monthly and communicated companywide and to senior leadership via the EP Dashboard:
 - Environmental impacts such as spills, leaks, gas migration, groundwater contaminant exceedances, certain releases to ambient air and stormwater discharges in excess of applicable standards
 - Regulatory impacts such as alleged violations, inspections and enforcement actions
 - Community impacts such as off-site spills/leaks, odors, noise, pests, mud and litter
- › Waste Management Visor, our intranet system, updates reporting systems to help manage tracking of landfills, tanks, authorized vendors and environmental compliance.
- › Overall compliance performance is reported to management according to the EP reporting structure, via routine activity reports.

We also communicate our environment efforts with our communities, customers, regulators and investors through other methods, including the following:

- › Waste Management's corporate website highlights significant research, environmental awards and unique achievements in environmental management.
- › Community comments are centrally managed and tracked through response and, if necessary, correction.
- › Our environmental scientists and professionals present achievements and research at national and international environmental conferences.
- › Our Corporate Communications department is responsible for communication of environmental issues at the company.
- › Our local managers support community outreach programs.

Documents and Operational Controls

Waste Management has several internal systems for maintaining documents and records related to the EMS. The location of any particular document or record depends on the specific application, since many of the EMS tools are multiple-purpose programs. The two main internal systems are the following:

- › **Waste Management Visor Environmental Protection Website.** Visor is the company's intranet, with links to all formal corporate environmental policies, standards, documentation and resources, including the EMS, training materials, web-based tracking systems and databases. Visor is available to all company employees and is reviewed and revised on a routine basis to ensure that it is up-to-date and includes the most recent documents.
- › **Waste Management Environmental Program SharePoint.** The EP SharePoint webpage is used to store and share environment-related documents, guidance, training materials and other electronic resources. All Environmental Program and Technical Managers have access to the EP SharePoint website. The SharePoint is available for interactive program tracking, e.g., site visits, order tracking, document development, idea development and sharing, and document sharing. The EP SharePoint page is regularly reviewed and updated.

We have a wide range of environmental databases including the following:

- › **Cycle.** The compliance assurance task calendar program for identifying and tracking completion of site environmental tasks regarding permits, regulations, site plans, policies, etc.
- › **Environmental Reporting System (incident alerts).** The repository for reported agency-identified violations (AIVs), environmental exceedances and public comments.
- › **Dakota Auditor and Tracer.** A third-party audit management system used to manage compliance representation letters. Also used to track environmental and safety audit findings and corrective actions.
- › **Environmental Enforcement Database (EED).** The Legal department's violation tracking database for tracking significant violations through completion and reporting the results to senior management and corporate governance.
- › **Storage Tank Database.** Used to manage aboveground and underground storage tanks, including registrations for insurance purposes.
- › **Applied Landfill Information Analysis System (ALIAS).** A relational database used to cross-reference landfill characteristics (e.g., cover, liner, waste type) to monitoring points and results.
- › **EQulS.** Contains our groundwater, surface water and other analytical data provided by contract laboratories. Used for reporting, data integrity and management purposes.
- › **Landfill Gas Management System (LGMS).** Houses operational and performance data relating to landfill gas collection and control systems.
- › **PharmE Waste Wizard.** Maintains hazardous waste categorization for over 220,000 pharmaceuticals on the market, updated weekly.

In addition to the above, each facility is responsible for maintaining its own operating record, including documents, inspections and reports required by regulation.

Emergency Preparedness and Response

We're always working to refine and improve the disaster response and preparation plans for our facilities. We maintain an Emergency Situations and Evacuation Plan Policy, which communicates management objectives for addressing emergency situations. Facilities may also be required to maintain specific emergency response plans, including the following:

- › Hurricane Preparedness Plans and annual simulation exercises.
- › Disaster Preparedness and Management Plans in areas subject to natural disasters (e.g., tornados, fires, earthquakes), for safe handling of disaster-generated debris.
- › Spill Prevention Control and Countermeasures (SPCC) Plans for facilities that store certain volumes of petroleum products and are required to prevent, contain and control spills.

Our employees are trained and drilled to comply fully with Emergency Situations and Evacuation Plans, Local Preparedness Plans and Spill Plans.

4. ASSESSMENT AND CORRECTIVE ACTION

Monitoring and Measurement

We use the following programs as a multipurpose, integrated system to monitor, measure, report and track environmental aspects and impacts through closure/completion:

- › **Environmental Protection (EP) Dashboard — Environmental Incident Rate (EIR).** This online system is used to measure, track and report performance across three areas: the environment, our communities and regulations. Our performance goal is continuous year-over-year improvement in EIR performance (Environment, Community and Regulatory).
 - **Environment.** Environmental incidents that occur at our operations are compiled, including the following:
 - Spills/leaks that hit the ground from vehicles
 - Groundwater impacts that exceed regulatory criteria or that show increasing trends
 - Stormwater impacts above benchmarks or reportable release levels
 - Leachate impacts
 - Air impacts that include surface emission overages or reportable air emissions
 - Landfill gas impacts registered by perimeter gas probes
 - **Community.** To underscore the company's commitment to the communities it serves, Waste Management developed and deploys a public comment management system. When a comment is received, the information necessary for a prompt response and remedy is routed to the closest responsible manager. The manager is empowered to take action appropriate to the circumstances and track remedies through to completion.
 - **Regulatory.** Regulatory incidents and, more important, their precursors are tracked, managed and recorded for each occurrence as part of the company's compliance program and continuous improvement process. Lessons learned are shared via the company's EP Dashboard and program of weekly and monthly reporting. Senior management, including the Board of Directors, is briefed on performance on a regular basis. The position of Chief Compliance Officer exists to elevate the issue of regulatory compliance.
- › **EP Dashboard — EP Toolkit.** The EP Toolkit is used to evaluate environmental performance system metrics for the company's business operations every month. EP Toolkit metrics help ensure that all cycle tasks, audit findings and environmental incidents are completed in a timely manner, and effective corrective actions and preventive measures are implemented.
- › **EP Dashboard — System Reports.** A System Report is a month-end environmental performance summary that is automatically sent to EP Dashboard users of record.
 - Dashboard reporting tool also provides users with the ability to review and report environmental performance results on a real-time or scheduled basis.

Corrective Action and Preventive Measures

Local EP Managers are responsible for ensuring resolution and prevention of issues identified through the EP Dashboard, EP Toolkit and other environmental database reports. Facility and EP Managers are responsible for ensuring that all identified incidents are closed out completely and correctly. Measures or actions that are not effective are subject to reopening of the incident.

- ▶ Environmental Incident Rate incidents are documented and tracked until all corrective actions and preventive measures are implemented. Performance related to completion of the corrective and preventive measures is tracked via the EP Toolkit.
- ▶ Public Comment Management Program is the process for addressing environment-related calls from our customers and communities. Environmental comments received at Customer Service Centers are entered into a program called CASES, while calls received directly by the facility are entered into Public Commenter by the site staff. Any comment requiring corrective action is routed to the local entity for response and resolution. Environment-related comments uploaded into either system are centrally tracked through correction and preventive measure implementation.
- ▶ The Waste Management Integrity Helpline is our portal to internally identify potential instances of noncompliance with company or regulatory procedures. We communicate to employees that it is available for their use and promote a Speak Up culture wherein when they speak up, we will listen up and follow up. Every inquiry is logged and tracked to ensure that the issue is resolved, up to and including any required corrective actions. The Legal department and EP work together to assess whether the incident has any national implications and to ensure that the corrective action is spread across the organization — so that a lesson learned in one location is rippled across the organization. The Helpline is maintained by a third party where reports can be made anonymously 24 hours a day, seven days a week.

Our facilities are expected to ensure that corrective actions and preventive measures are effective. Environmental issues are not closed out in any of these systems without the concurrence of the EP Manager.

Compliance Audits

Waste Management's Corporate Compliance Audit Services (CAS) conducts independent environmental, health and safety (EHS) and transportation compliance audits. Each year the department conducts hundreds of audits at facilities owned, operated or controlled by the company. Audit planning and scope are based on risk assessment principles, including the nature of operations and consideration of emerging regulatory and EHS trends. CAS reports to the Vice President and Assistant General Counsel/Regulatory, Chief Compliance and Ethics Officer and Legal department. Audit practices are modeled on the nationally recommended compliance audit practices approved by the American Standards for Testing and Materials and the standards for professional auditors approved by the Board of Environmental Health and Safety Certifications.

CAS evaluates and supports improvement of the company's EHS performance through the following activities:

- ▶ Conducting systematic, documented and objective evaluations to verify compliance with environmental regulatory requirements;
- ▶ Assisting the company in evaluating and improving the effectiveness of existing EHS and transportation systems and policies; and
- ▶ Assisting the company and its managers in preventing, detecting, correcting and proactively addressing compliance issues.

CAS processes and procedures include the following:

- › Assessing risk and selecting facilities to audit;
- › Training of staff conducting audits;
- › Developing audit protocol documents;
- › Planning and conducting audits;
- › Identifying noncompliant activities;
- › Resolving audit findings;
- › Documenting management and retention;
- › Reviewing and updating program directives and procedures;
- › Auditing quality control and assurance; and
- › Communicating of audit results.

Facility staff use designated programs (e.g., Dakota Tracer) to document resolution of all audit findings. CAS reviews all findings before they are closed and conducts verification audits to ensure that the finding resolution was effective. CAS communicates the audit results to relevant local and corporate management and follows up to ensure the timely resolution of issues identified through its compliance audits.

As part of our auditing and compliance process, we ensure we can monitor the final destination of our waste, measure to assure that no hazardous waste is transported from developed countries to developing countries, and ensure products sent from developed countries to developing countries for repair or resale are not waste. Waste Management's electronics recycling division is Responsible Recycling (R2):2013, ISO 9001:2015, ISO 14001:2015 and RIOS:2006 certified.

The Responsible Recycling (R2):2013 Standard requires certified organizations to comply with all applicable import and export laws covering shipments of Focus Materials generated from the processing of electronics in accordance with the Basel Convention and with Section 6 (1) of the Standard, for Reusable Equipment and Components, Tested and Full Function, R2/Ready for Reuse requirements.

Waste Management's electronics recycling division is audited regularly for compliance to the standards it subscribes, which includes monitoring of final destinations for destruction, recycling, refurbishment, reconditioning, and/or resale.

Records

Certain data elements are reported with routine frequency, while others are reported on a nonspecified schedule.

Certain groundwater and surface water test data are collected on a routine basis and tied to sampling events specified in operating permits, licenses and applicable permits (usually quarterly or semiannually). These results are housed centrally through our laboratory management program and are reported as they are generated.

Incidents related to unanticipated releases to the environment (e.g., spills, environmental impacts) are required to be reported within 48 hours to the corporate office, on a real-time basis. Notification of these incidents ensures the appropriate resources are made available to address the particular situation and to minimize potential impact to the environment. Response actions are also monitored for effectiveness and timeliness.

Records relating to analytical results, environmental performance elements and compliance assurance tasks are all maintained online within our IT, Legal and/or Environmental Protection departments. Documents and technical resources are available and maintained on our Visor and SharePoint intranet sites, as are training, guidance and standards resources.

Key environmental metrics are reported and compiled on a weekly basis, monitored and reported to senior management monthly, managed and stored online. Environmental aspects of our business, including notices of violation, are reflected in senior management reporting and through an internal environmental metric system that is provided to senior management and housed in the Environmental Enforcement Database (EED). Landfill gas collection system performance is monitored monthly with metrics designed to detect and correct upsets.

All our facilities must certify annually their compliance with all applicable permits and regulatory requirements through our centralized Compliance Representation Letter process, which is reviewed by senior management yearly.

5. MANAGEMENT REVIEW

Our management teams participate in a management review process to determine the level of success in achieving environmental goals. In doing so, they complete the following tasks:

- ▶ Review environmental policies
- ▶ Review Waste Management's EMS
- ▶ Review the EP Dashboard environmental performance, issues and incidents on a routine basis
- ▶ Evaluate corporate and local environmental goals and objectives
- ▶ Amend the EMS as needed, including policies, procedures, goals and objectives

Management review and response to environmental performance measures, incidents and issues are used to drive operational changes and ensure that continuous improvement goals are met. Our Internal Audit department performs compliance evaluations on an ongoing basis.

Leadership in Environmental Science

Waste Management's professional staff are encouraged to participate in the public and scientific community dialogue on environmental science and the performance of the environmental service facilities and technologies the company employs. Described below are key contributions our experts have provided:

Control of Methane by Landfill Caps

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Khire, M., et.al. (2012), "Estimation of Vertical Flux in an Instrumented Earthen Cover," Global Waste Management Symposium 2012 Proceedings, Phoenix, AZ.

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Hardt, C. (2008), "Numerical Evaluation of Preferential Flow through Evapotranspirative Landfill Covers," Masters Thesis, Department of Civil & Environmental Engineering, Michigan State University, Dec.

Johnson, T. (2009), "Ecological Restoration Plan, ET Covers, Stormwater Controls and Wildlife Habitat — Dickinson LF IDNR Meeting, Des Moines, IA May.

Johnson, T. (2009), "Workshop on ET Cover Technology" WDNR Meeting, Madison, WI April.

Johnson T. (2010), "Modern Landfill Water Balance, and Alternative Final Covers and Landfill gas and Emission control" USEPA ET Cover Workshop, Austin, TX.

- Johnson, T. (2011), "ET Cover role in Ecological Restoration" IDNR Offices, Des Moines, IA March.
- Johnson, T. (2011), "Modern Landfill Water Balance, and Case Studies From Waste Management's Alternative Final Cover Program" USEPA ET Cover Workshop, Denver, CO May.
- Kaushik, T., Khire, M.V., Johnson, T.J., and Caldwell, M.D., "Surface Runoff at an Instrumented Catchment-Scale Water Balance Final Cover", 2014 ASCE Geo-Congress Symposium, Atlanta, GA, February 2014 (ACCEPTED).
- Khire, M. et al., (2014), "Catchment-Scale Hydrology of a Water Balance Final Cover located in Texas", Global Waste Management Symposium 2014 Proceedings, Orlando, FL.
- Khire, M. and Johnson, T. (2010), "Effect of Geocomposite Drainage layer on Water Balance of Evapotranspiration Cap Lysimeters," Global Waste Management Symposium 2010 Proceedings, San Antonio, TX.
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- Mijares, M., Khire, M. and Johnson, T. (2009), "Soil Water Storage in Lysimeters versus Actual Earthen Caps for Landfill Applications," GeoFlorida 2009, American Society of Civil Engineers, West Palm Beach, FL (Feb), in preparation.
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- Bull, L.P. (2009), "Alternative Landfill Covers — Technical and Regulatory Considerations for Continued Progress" Colorado Department of Public Health and Environment (CDPHE) Workshop, Denver, CO.
- Bull, L.P. and Dwyer, S. (2006), Evaluating the VADOSE/W Model for Deployment of Evapotranspiration (ET) Covers in Cold and Wet Climates, Waste Tech Symposium, Phoenix, AZ.
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- Bull, L.P. and Dwyer, S. (2008), "Performance Criteria for Alternative Final Cover Systems on Lined RCRA Subtitle D Landfills" Global Waste Symposium, Copper Mountain, CO.
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- Obereiner, J (2009), "Alternative Landfill Covers — Building a Sustainable Final Cover at Greater Wenatchee Regional Landfill WDOE and CDHD Meeting, Wenatchee, WA June.
- Prucha, C.P., Johnson, T.J. (2008), "Alternative Landfill Covers — Current Practice and Key Technical Considerations", Presentation at Federation of New York Solid Waste Associations Annual Conference.

Groundwater Assessment

Bull, L.P., Obereiner, J., Verwiel, M., and Wampler, S. "Reducing Potential for Landfill Gas Impacts to Groundwater, Another Potential Advantage of Alternative Landfill Covers," (2004) SWANA, 9th Annual Landfill Symposium, Monterey, CA.

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Caldwell, M.D., and Baker, J.A., "Aerobic Bioremediation of Vinyl Chloride in Groundwater at a Solid Waste Landfill Using a Vadose Zone Air Injection Trench", WasteTech Landfill Technology Conference Proceedings, Phoenix, Arizona, February 27, 2006.

Caldwell, M.D., and Wallis, E.E., "An Empirical Evaluation of Impacts to Groundwater from Subtitle D-Lined Solid Waste Disposal Cells", WasteTech Landfill Technology Conference Proceedings, Phoenix, Arizona, February 27, 2006.

McGrath, A.E., Upson, G.L., and Caldwell, M.D., "Evaluation and Mitigation of Landfill Gas Impacts on Cadmium Leaching from Native Soils", Groundwater Monitoring and Remediation, No. 4 Fall 2007, pp. 99-109.

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Verwiel, M. (2008). "Case Study on the Role of Monitoring Well Structural Integrity on a VOC Monitoring Program at a Hazardous Waste Facility in the Western United States," ESD 17th Annual Michigan Solid Waste Conference.

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Patents

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Continuous Improvement in Customer Service

Customer Relationship Management

We think of ourselves as a "customer-centric" company and continually seek to improve the customer experience and our ability to manage reliable, excellent service.

1. A number of tools are essential to our CRM system:
 - a. **Salesforce.com** (our Customer Relationship Management /CRM tool): We deployed Salesforce.com (SFDC) in 2010 and have spent the last eight years enhancing, improving and expanding its reach throughout our sales organization. Our current CRM model helps us to be more customer-oriented when we manage data, develop performance plans and lead our sales teams. Key components of Salesforce.com are our **FOCUS 2.0** and **Relationship Health** sales programs. With these two programs, we are using predictive analytics and proactive outreach to serve our customers' needs more effectively.
 - b. Our **FOCUS 2.0** program uses advanced analytics to predict which customers may be likely to defect and/or be unhappy with their current service received/value exchanged. FOCUS allows us to concentrate our time and attention on potential "at risk" customers to ensure we remove roadblocks, solve any service issues, and overcome any perceived challenges the customer has in order to get their service/value exchange back in alignment.
 - c. Our **Relationship Health** dashboard is another program we use to track and manage the strength of the connections we have with our customers.

- For our call center sales team specifically, we deploy a tool called [InsideSales.com](https://www.insidesales.com). This platform uses a sophisticated sales prioritization algorithm to rank and route customer calls (and/or dial out to prospects) that have the greatest current need from us. This sales enablement tool, in conjunction with the analytics derived from FOCUS and our SFDC platform, positively impacts our ability to be more effective with our customers most in need of attention.

Performance Management. We firmly believe that better performance management leads to better overall performance, which ultimately leads to a more sustainable business model. Last year we deployed a sales performance methodology called **Sales SDO** that created a standardized approach to sales performance throughout our sales organization. Sales SDO was mirrored after a similar program created in our Operations department (SDO/Service Delivery Optimization) and further refined by Fleet and Maintenance teams (MSDO). This holistic approach to performance standards has given us a better approach by which to monitor our routines and build a sustainable business model connecting our Operations and Sales departments.

Gauging Our Progress

CUSTOMER SATISFACTION (CSAT)

Waste Management's customer service survey, called CSAT, began in 2012. CSAT tracks the average score of all customers on three key questions about Waste Management: overall experience, likelihood of continuing to do business, and likelihood of recommending Waste Management. We also track the percentage of our "loyal" customers (those that give us a 9 or 10 on key questions), and those that are "at risk" (1-5 on the key questions). Other areas of focus are operations, customer service/account management, communications, problem incidence and resolution, and our overall brand. The surveys are sent to active customers. 92 percent are sent by email, and the remainder of the surveys are completed over the phone. Waste Management receives 10,000-12,000 surveys each month, with a response rate of 9.0 percent, which is considered a high rate for a long-standing survey. The results are monitored monthly and coordinated between customer service and our operations teams.

RESULTS

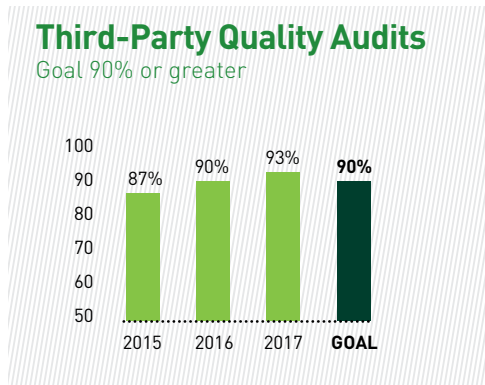
Survey results have remained consistent over the years, and Waste Management achieved its 47 percent loyalty goal in 2017. The average enterprise-wide CSAT score in 2017 was 8.27 on a 10-point scale. This is an improvement over time from our 2014 score, but slightly down from 2016 (0.02 points). Our goal is a 10, but we understand that many factors impact scores; in particular, severe weather events which have geographic impacts along all lines of business.



Other Measures

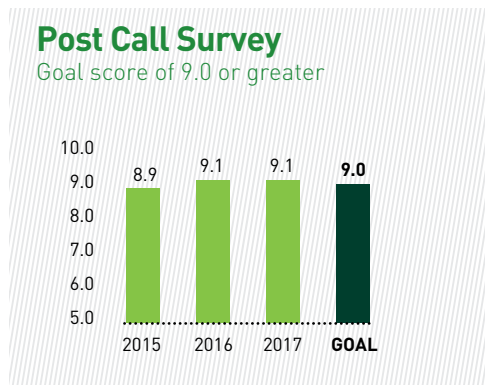
CUSTOMER CARE — PHONE QUALITY SURVEYS

Waste Management also monitors the quality of our calls, including use of third-party auditor BPA and post-call surveys for commercial customers. The results show consistent improvement in customer satisfaction for our National Account customers, an important part of our customer base and among our most sophisticated and demanding:



BPA phone quality

- › BPA is a third-party quality provider that provides services to all Waste Management service teams
- › Seven calls per agent monitored on a monthly basis



Customer satisfaction post call survey

- › Offered on 50% of all inbound calls received (~15K calls/month)
- › Historically 2.6% response rate (~400 calls/month)

These surveys provide immediate feedback, as well as valuable trend information over time.

RELIABILITY SURVEYS

An important aspect of customer satisfaction is assurance that service will be reliable. In 2017, our “Customer Experience Quality of Service” scores for our collection services were:

- › Commercial = 98.24%
- › Roll-off = 96.76%
- › Residential = 98.93%

Waste

Nearly all waste handled by Waste Management is generated by others rather than the company itself. Nevertheless, we are providing information on our internal waste production and the amount recycled. Note that because of the relatively minimal waste produced, it tends to be handled at the facility where generated for the sake of efficiencies and reduced transportation.

In the following, total waste generated in operations is calculated using an average waste and recycling generation tonnage per employee per day for each of our facility types (landfill, MRF, office or transfer station). The waste and recycling generation tonnage is based on audits conducted at each facility type.

TOTAL	WASTE (TONS)	RECYCLING (TONS)	TOTAL (TONS)
2011	2,746.88	571.14	3,318.02
2012	2,755.50	580.74	3,336.24
2013	2,734.81	582.06	3,316.87
2014	2,632.37	550.5	3,182.87
2015	2,651.49	452.33	3,103.82
2016	2,759.23	510.67	3,269.89
2017	3,185.13	658.92	3,488.25

BETTER WORKFORCE

Diversity and Recruitment

As part of our ongoing effort to discover and attract the most talented workforce, Waste Management has built outreach relationships with many national and community-based organizations to proactively share opportunities with diverse and versatile populations. The following are examples of our partners:

- › Ability Jobs (supporting individuals with disabilities)
- › Black Chamber (Greater Houston)
- › Campus Pride
- › Canadian Centre for Diversity and Inclusion (CCDI)
- › Disabled American Veterans (DAV)
- › Diversity
- › Goodwill Industries
- › Hispanic Latino Professional Association
- › Human Rights Campaign
- › Military Spouse Corporate Career Network
- › NAACP and its local chapters throughout the country
- › National Society of Professional Engineers and its local chapters
- › National Urban League, Houston chapter
- › Texas Diversity Council
- › Toronto Region Immigrant Employment Council (TRIEC)
- › Universal Technical Institute — Diesel Maintenance
- › Women in Trucking

Many of Waste Management's career opportunities are posted on specialized career sites designed to target a diverse range of qualified candidates. Examples include the following:

- › Athlete Network
- › Disability.gov
- › Extend-A-Family Toronto
- › GettingHired — Jobs for People with Disabilities
- › Hispanic-Today
- › IMDiversity
- › Military Spouse Corporate Career Network
- › National Labor Exchange (NLE)
- › Ready, Willing & Able
- › Senior Jobs Network
- › The Black Collegian Online
- › VetCentral
- › Women in Business and Industry

In addition to the above outreach partners, our talent advisors and hiring managers maintain an active presence at networking/recruitment events sponsored across North America.

Under the Americans with Disabilities Act (ADA), Waste Management will make reasonable accommodations for the known physical or mental limitations of an otherwise qualified individual with a disability. Employees and applicants of Waste Management who are covered under the ADA are eligible unless undue hardship would result to the company. In order to help our employees gain a better understanding of the ADA, the ADA Amendment Act and the process associated with it, we have distributed a frequently asked questions (FAQ) to front-line managers. We also provide training to managers on accommodation responsibilities.

Snapshot of Waste Management Workforce

EEO Job Category	Total Population	Female Total		Male Total	
1.1-Exec/Sr	63	11	17.46%	52	82.54%
1.2-First/Mid	4,140	750	18.12%	3,390	81.88%
2-Professionals	1,439	654	45.45%	785	54.55%
3-Technicians	19	6	31.58%	13	68.42%
4-Sales Worker	2,428	1,235	50.86%	1,193	49.14%
5-Administration	4,300	3,244	75.44%	1,056	24.56%
6-Craft Worker	3,077	15	0.49%	3,062	99.51%
7-Operatives	2,0648	364	1.76%	20,284	98.24%
8-Laborers	2,280	303	13.29%	1,977	86.71%
9-Service Worker	23	2	8.70%	21	91.30%
Grand Total	38,417	6,584	17.14%	31,833	82.86%

Human Rights

Waste Management has operations and relationships in the United States and Canada, as well as a service center in India (Waste Management Logistics). In January 2014, Waste Management divested its investment in China but continues to provide some technical services. This entity has an employee handbook in place that covers local compliance policies and practices.

The Waste Management [Code of Conduct](#) provides the protections afforded by international human rights frameworks and covers Waste Management employees who are located in North America and India. Employees are required to report any noncompliance with the Foreign Corrupt Practices Act (FCPA) to the Chief Compliance and Ethics Officer or to the Waste Management Ethics and Compliance Integrity Helpline at 1-800-265-9381 in North America and 0001-877-801-2359 in India.

Waste Management's Code of Conduct is in alignment with the [Ten Principles](#) of the United Nations Global Compact. Early in 2018, Waste Management developed, approved and put into place a written [Human Rights Policy](#) to underscore our commitment to human rights. The Waste Management Code of Conduct and [Supplier Code of Conduct](#) are currently being revised to include references to this policy. Suppliers are notified that we expect them to respect these principles as well. All employees are trained in the Waste Management Code of Conduct, and we expect all to comply. More information on our Code of Conduct can be found on our [website](#). We believe in networking with groups focused on ethics in corporate management to keep abreast of best practices. We are a member of the Ethics and Compliance Initiative (ECI), Society of Corporate Compliance and Ethics (SCCE), Greater Houston Business Ethics Roundtable (GHBEB) and the Manufacturers Alliance for Productivity and Innovation (MAPI) — Ethics & Compliance Council.

Policy Against Trafficking of Humans and Modern Slavery

With increased concerns about human trafficking and modern slavery, in late 2017 Waste Management developed and put into place a written Policy Against the Trafficking of Humans and Modern Slavery to bring awareness of this important issue as our employees work and travel, both for business and otherwise. The Waste Management Code of Conduct and Supplier Code of Conduct include references to this policy.

We do not believe any of our operations are at risk of infringing on the right to freedom of association, nor do we believe our workforce is at risk for incidents of child or forced/compulsory labor. Finally, Waste Management complies with all applicable rules governing minimum wage in North America. For the fraction of a percent of our employees living abroad, we comply with all applicable rules and pay locally competitive compensation rates.

CONTINGENT LABOR PROGRAM

Our Contingent Labor Policy is applicable to all contract workers, temporary workers or other nonemployee workers providing time- and expense-based work at Waste Management outside of a Statement of Work agreement with Waste Management National Services, Inc.

All contingent workers at Waste Management are managed through the Contingent Labor Program, the program approved by the Waste Management Senior Leadership Team for the management of contingent workers at Waste Management and residing inside of Corporate Human Resources, for which key conditions are outlined as follows:

- ▶ Contingent workers are sourced only through staffing suppliers that have an executed master services agreement (MSA) with Waste Management;
- ▶ Contingent workers are subject to background checks and drug testing as required;
- ▶ The life cycle of a contingent worker is managed in collaboration with the managed service provider (MSP), the internal or third-party administrator providing management and administration of the program, and includes:
 - Requisition through the vendor management system (VMS), the system of record utilized to manage contingent workers;
 - Onboarding contingent workers;
 - Ensuring that staffing suppliers and contingent workers are aware of and comply with applicable Waste Management policies and procedures;
 - Submitting and approving time worked through the VMS in accordance with Waste Management's Timekeeping Policy and Timekeeping Procedure;
 - Managing time charge and expense approvals and invoices through the VMS;
 - Managing staffing supplier payments in collaboration with the MSP; and
 - Offboarding contingent workers at the end of the work assignment.

Waste Management considers the use of contingent contract labor a matter of strategic business planning. Our Contingent Labor Program delivers top quality contract labor across Waste Management's operations, helping to fill jobs with skilled workers while judiciously managing

cost, quality of service and risk to the company. The Program enables us to use reliable preferred vendors to fill specialized positions quickly and deploy qualified talent to manage changes in service demand, temporary need for specialized expertise and/or short-term labor shortages.

We approach contingent workers with the same vision for teamwork, dignity and mutual respect with which we approach employees. Our safety vision fully extends to contingent workers. Contingent workers are evaluated for opportunities for direct employment with Waste Management and career development, with Waste Management managers encouraged to seek opportunities for new contract labor when full-time opportunities open.

Oversight of Waste Management's Contingent Labor Program is centralized in our Talent Acquisition Department with the Program Director monitoring service provision, policy compliance, and internal client satisfaction. Guidance and training are provided that cover timekeeping, onboarding procedures, use of temporary staffing suppliers, field management compliance obligations and corporate oversight. Onboarding training includes compliance with Waste Management policies on safety, security, the Waste Management Code of Conduct and Integrity Helpline and applicable regulations. Contractor personnel must sign certifications after having received the relevant safety training. Worker hours are monitored with the same centralized time-keeping system used throughout the organization to assure compliance with Department of Labor, OSHA and all other applicable regulations.

Waste Management uses the same prequalified security screening vendors for both employees and staffing suppliers/contingent workers. These vendors are specialists in background, compliance and safety screening. The vendors are evaluated quarterly for compliance with the terms of their contract and all applicable policies and regulations. Workers otherwise referred to the company ("self-sourced" contract associates) are managed by the MSP Waste Management Service Team to assure full compliance with all Waste Management hiring standards. No worker is ever asked to pay a fee for engagement at Waste Management. Local wage regulations are tracked centrally to assure compliance of contract terms with those regulations.

Collective Bargaining

We continue to be fully supportive of our employees' right to self-organization; to form, join or assist labor organizations; and to bargain collectively through representatives of their own choosing. We also recognize that our employees have a statutory right to refrain from such activities. Our company policies and procedures adhere to all applicable domestic laws concerning freedom of association and collective bargaining, nondiscrimination, forced labor and underage workers in the workplace. Moreover, we have organized employee engagement councils aligned with the principles of collective bargaining to elevate the cooperative dialogue between employees and managers throughout Waste Management. Our Driver and Route Manager Councils capture the wisdom of representatives throughout the 17 Waste Management Market Areas, providing advice on best practices, means to reduce voluntary turnover, and means to retain drivers and technicians. Through our various subsidiaries, our company has successfully negotiated and now administers collective bargaining agreements that cover 7,948 employees — about 20 percent of our workforce — in approximately 266 facilities. In 2016 and 2017, Waste Management employees held zero strikes and/or lockouts .

COLLABORATION THROUGH PEER REVIEW

Our Peer Review safety councils bring the spirit of collaboration to implementation of our fleet safety program. Peer Review is a process where drivers and technicians may voluntarily choose to appeal safety-related rule violations to a “Peer Review Board” comprised of fellow employees chosen at random for that particular case. Peer Review was initially conceived and created in 2011 as part of a joint effort between management and employees at a single hauling site to address safety-related issues and perceived inconsistent disciplinary practices. The program has since expanded to 70 sites, covering over 5,600 employees. Installation at additional sites is ongoing.

During a Peer Review hearing, both the affected employee and management present evidence, with the scope of review limited to whether the rule at issue was violated. At the conclusion of the hearing, the Board votes anonymously whether to sustain or overturn management’s decision. If management’s decision is sustained, the discipline administered under the site’s progressive disciplinary policy for safety violations remains. If overturned, any discipline administered under that policy is removed. The decision of the Board is final.

It is important to note that the Peer Review Board does not act in an advisory capacity. Instead, Peer Review is available to appeal management’s decisions. Similarly, Peer Review is voluntary — employees counseled or disciplined for safety rule violations are not required to utilize the process. Finally, Peer Review is limited in scope to whether the safety rule at issue was violated. Any discipline imposed depends upon where the employee resides under the site’s progressive disciplinary policy.

An important aspect of the Peer Review program is the emphasis on employee engagement. For example, most procedural aspects of the Peer Review program are determined locally during installation, requiring significant input and consensus from employees at each site. Each employee also undergoes critical analysis training, centered on both root cause analysis and deeper understanding of our safety policies. In many cases, many market areas have adopted the Peer Review focus group concept and engage employees directly on both the creation and subsequent modifications of safety disciplinary policies.

Similarly, Peer Review has proved to be a valuable management tool. For example, as each decision may be subject to review, managers are incentivized to engage in more thorough root cause investigations prior to issuing discipline. Adverse decisions often highlight a need for more effective management training, identify a potential “disconnect” between management and the employees’ understanding of a particular rule or signal employee “disengagement,” requiring immediate attention.

Employee Benefits

We offer our employees competitive wages and benefits, including medical, dental and prescription drug coverage; short- and long-term disability; life insurance and accidental death benefits; retirement plans; and a stock purchase plan. The company also offers other important benefits such as legal services (e.g., wills, powers of attorney), flexible spending accounts, adoption assistance, paid vacation and holidays, employee discounts, education savings accounts and scholarship programs.

The Waste Management Health and Welfare Benefits Plan allows employees to choose from among different levels and types of coverage. This allows each employee to put together a mix of benefits that meets their needs while receiving significant tax advantages by paying for benefits on a pre-tax basis (as allowed by law). About 96 percent of our employees choose to participate in a Waste Management health and welfare plan.

Waste Management pays the full cost to provide its employees with short-term disability benefits, long-term disability benefits, basic life insurance for the employee and dependents, and employee and family assistance benefits. The costs for some coverage, such as medical and dental, are shared with employees, with Waste Management picking up a majority of the expense.

We are particularly proud of our wellness programs. We have a team of “Get Well Guides” — a group of nurses and coaches who help employees and their families get access to the help they may need for a variety of life challenges. Employees can dial a toll-free phone number for confidential support and assistance from reliable, compassionate professionals who are trained as nurses, coaches, dieticians, clinicians and financial counselors. Employees and their families also have access to 2nd.MD, a virtual service that provides real-time consultation with doctors specializing in a variety of practices.

Our Waste Management Wellness Champ initiative was launched in 2016. To recognize Waste Management sites for their wellness-focused efforts, we created the Well Worksite Recognition Program in conjunction with the initiative. Just two years later, more than 775 sites have a Wellness Champ and nearly 450 sites are participating in the Well Worksite Recognition Program. Across the company, the Wellness Champs have spearheaded several initiatives such as the Couch-to-5K, Jump Start Your Resolution, Fruit and Vegetable challenges, Tobacco Cessation programs, and Biggest Loser-style challenges at their sites, in addition to supporting other companywide initiatives through wellness promotion.

In 2017, the Well Worksite award was given to 373 sites. The award is broken into three categories :

- **Gold** recognizes a site’s comprehensive involvement and dedication to employee wellness.
- **Silver** recognizes a site’s expanding involvement and dedication to employee wellness.
- **Bronze** recognizes a site that is providing programs to support employee wellness.

For 2017, 177 sites earned gold, 103 silver and 93 bronze.

Our wellness programs also include on-site flu vaccination clinics and health fairs, where we provide blood pressure tests, blood lipid tests and other screenings that aid in the early detection of health risks. A health coach also meets individually with all participants to review their results and suggest action items to improve their health.

A Transition to Recovery program helps injured or ill employees return to work sooner in temporary assignments that are consistent with their medically documented capabilities. These assignments help the employees remain productive and speed their medical recovery. **See also Short-Term Disability benefits above.**

We also provide plans to help employees save for the future. The Waste Management Retirement Savings Plan provides employees with diversified fund options in which to invest for retirement. Employees can choose to make pre-tax and/or after-tax (Roth) contributions, with the company providing a market-competitive match with immediate vesting. Employees receive free investment advice through a call center staffed with licensed advisors, as well as through a suite of online tools. About 61 percent of employees participate in our savings plan.

Another valuable program is our Employee Stock Purchase Plan, which provides employees an opportunity to buy shares of Waste Management common stock at a discount of 15 percent or more. About one-third of eligible employees participate in this plan.

Additional benefits, such as the legal services plan, flexible spending accounts and education savings account, are voluntary, and employees participate only if they choose to do so by making the required contributions.

Benefits for Canadian employees, as well as for certain collectively bargained U.S. employees, may differ in some respects from those described above. For example, in Canada, the broader reach of standard health coverage makes Get Well Guides less useful, and our Return to Work program is not identical to Transition to Recovery.

Tailored Training Programs

We continuously strive to empower our employees and managers to deliver excellent and safe service to our customers and the communities in which we work. We provide job-specific training in all applicable lines of business on how to safely operate and maintain our key equipment and the behaviors expected to increase overall performance as an employee and manager. We believe environmental excellence and compliance are the hallmarks of sustainability and reflect Waste Management's core values. As such, compliance with applicable regulatory standards and internal policies and procedures is also part of our training philosophy.

COLLECTIONS AND FLEET

Employees in our collection and fleet operations are provided with opportunities to train on the following:

- › **Technician Air Brake:** an on-site field course designed to develop and standardize maintenance programs; a similar class is geared toward educating drivers on the functions and inspections of air brake systems.
- › **Basic Hydraulics for Refuse Bodies:** field course designed to teach participants about the design and maintenance of the hydraulics features of our fleet.
- › **Compass M5:** web-based modules housed in our Talent Central Learning Portal that focus on key shop processes.
- › **Lockout/Tagout (LOTO) Awareness:** course to enhance awareness of control of hazardous energy and work under the protection of a LOTO permit; another course is geared toward authorized persons who perform or supervise work requiring a LOTO permit.
- › **Hazard Energy Control Programs:** three courses offered in our Hazard Energy Control program to train different levels of employees on working around hazard energy controls.
- › **Fleet 101:** an entry-level workshop for new and developing fleet leaders learning the skills required to effectively execute the primary duties of a Fleet Manager and Shop Supervisor.

- › **Driver Air Brake:** an onsite field course designed to educate drivers on the functions and inspection of the Air Brake systems used on Waste Management assets.
- › **Allison Transmission:** an onsite field course designed to teach technicians how to troubleshoot Allison transmission complaints.
- › **Lockout/Tagout (LOTO) for Authorized Persons:** a course that provides information about control of hazardous energy and work under the protection of a Lockout/Tagout permit for persons performing or supervising work requiring a Lockout/Tagout permit.
- › **Fleet 201:** a career development workshop for Fleet Managers building upon competencies learned during the Fleet 101 workshop and expanding upon these skills; it's the next learning step in the career development of the Fleet Manager preparing for assuming higher roles in the organization.

FIXED FACILITY TRAINING

Employees in our post collection operations are provided the following training opportunities:

- › **Disposal Operations Management Trainee Program:** builds a foundational understanding of the issues most important in day-to-day landfill operations.
- › **Environmental Protection Learning Series:** consists of key environmental training modules that focus on various topics regarding our environment, e.g., air regulations or customer-generated waste.
- › **Gas Collection and Control System Design and Construction:** provides standards for design strategy and design components to produce efficient and cost-effective landfill gas control systems.
- › **Introduction to Greenhouse Gas (GHG) Management:** teaches participants about GHGs, including what they are, how they originate, how emissions work and what Waste Management is doing to reduce our impact.
- › **Basics of Landfill Gas:** provides a basic knowledge surrounding landfill gas.
- › **Low Voltage Electrical Safety:** teaches employees safety procedures for working around electricity, including checking voltage, resetting breakers and more.
- › **Heavy Equipment Training Series:** training on key equipment at our landfills — including articulated dump truck, wheel loader, compactor and dozier.
- › **MRF Maintenance and Operations Programs:** designed for our recycling employees who manage and maintain our recycling operations.
- › **Personal Protective Equipment (PPE) Program:** covers all protective equipment including clothing, shields and barriers for eyes, face, head and extremities.

Each year monthly required and optional training sessions are mapped so employees can accommodate their work schedules to these opportunities.

SYSTEMS TRAINING

We engage employees throughout the organization with what we call Service Delivery Optimization (SDO) programs. Our first application was in fleet, where SDO provided strong benefits in terms of team collaboration, coaching — and progress on fleet performance and safety. We took this template and moved to our maintenance technicians. Maintenance SDO — or MSDO — has been launched at 13 Waste Management locations for site, district and fleet managers, helping them engage with their technicians by asking open-ended questions and listening. The comprehensive MSDO program is a 16-week process involving eight weeks with corporate coaches and another eight weeks in a second location, using a “train the trainer” model. And to bridge the gap for those awaiting full MSDO implementations, Waste Management has introduced “MSDO Lite,” which allows new sites to start working right away to improve their maintenance process and prepare for MSDO implementation.

Next we addressed our sales team. Our “Sales Service Delivery Optimization program, “SSDO,” begins with Individual Development Plans (IDP) tailed to every sales employee. The plans are tailored to each individual’s growth needs and identifies areas of strengths and skill gaps. IDPs facilitate the kinds of interactive and positive coaching sessions that are the backbone of the SDO platform. Every sales representative is given a “peer mentor” to help them acclimate into their roles. There are weekly role-play sessions, and each month the teams compete using video technology to help them hone their skills.

We work hard to build understanding of field operations among those in the corporate office who support them. Driver ride-alongs and visits to recycling facilities, landfills and other Waste Management area assets are common, ranging from new hire orientation to refresher experiences for our most senior management. Employees have access to both instructor-led and self-study courses from our online library, and frequently in-person training at Corporate offices for a broader understanding of Waste Management’s scope of services, sales process, pipeline management, negotiation, time management and more.

Ongoing training is tailored based on the employee’s individual development program and future growth plan. The Sales Department has found that this intense training effort pays off in retention when other Fortune 500 companies target our sales employees for recruitment. We try to tie our internal development program to broader engagement with the academic community, taking on projects such as volunteering time to build sales curriculum at Arizona State University (ASU) in Tempe, Arizona, offering ASU business students real-world leadership development programs and mentorships, and participating in sales forums at National Collegiate Sales Competitions.

Managers and corporate staff can sometimes have their own challenges finding time to hone their skills and work toward new opportunities in the company. We offer consistent training for our leaders and managers that supports the skills and behaviors we expect, as well as accelerated learning programs designed for high potentials moving to front-line, mid-level and executive leadership roles. A new “Business and Professional Training Library” was launched in early 2018 that includes 800 online courses. As part of our “I Learn” campaign that focuses on individual growth, employees can access these modules when they want, as often as they want. Even a 10-minute video learning session can break the usual routine and enhance knowledge. Particular focuses are business analysis, project management, communication skills, software skills and customer service.

Training Specifics

COURSE	AUDIENCE	TOTAL TRAINED
Safety Training — Driver and Technician Huddles (Daily)	All Drivers and Technicians	20,500
2016-2017 Code of Conduct Training	All Waste Management Employees U.S. & CAN	42,768
2016-2017 Break Time Is Your Time for Hourly Employees	Waste Management Hourly Employees in U.S.	31,676
2016-2017 Managing the Hourly Employee Meal Break Policy	Managers in U.S.	3,650
Security Awareness Training 2017	All personnel who use company and computer network	18,917
Preventing Harassment/Discrimination Training Sexual Harassment — For Salaried Employees (U.S.) Preventing Discrimination, Harassment and Retaliation — For California Salaried Employees Preventing Discrimination, Harassment and Retaliation — For Canada Salaried Employees Preventing Discrimination, Harassment and Retaliation — For Connecticut Salaried Employees Preventing Discrimination, Harassment and Retaliation — For Maine Salaried Employees	Waste Management Employees with EEOC: A-Executive/Sr Level Officials B-First/Mid-Level Officials	4,478
Professional Training	All employees	12,968

We continually look for ways to provide fresh, profession-specific training. For example, to address workforce shortages in technical fields, our Technician Apprentice Program (TAP) provides us — and its participants — a way to match up talented technicians with long-term careers that can include web-based and augmented reality applications. The TAP program offers part-time apprenticeship opportunities to students enrolled in approved technical training schools. As the program grows across North America, we hope that apprentices will seek long-term careers with Waste Management in essential technical positions.

Transition Assistance

Reorganization is a fact of life in a rapidly changing, dynamic business sector. Waste Management provides transition assistance, including severance benefits and outplacement services, to eligible employees whose employment is terminated in connection with a reorganization event.

Partnership Engages Young Adults

Disadvantaged young adults who had previously dropped out of school are creating paths to secure futures through a unique collaboration between Waste Management of Alameda County, Inc. (WMAC) and Civicorps, an Oakland, California-based education and job training nonprofit organization.

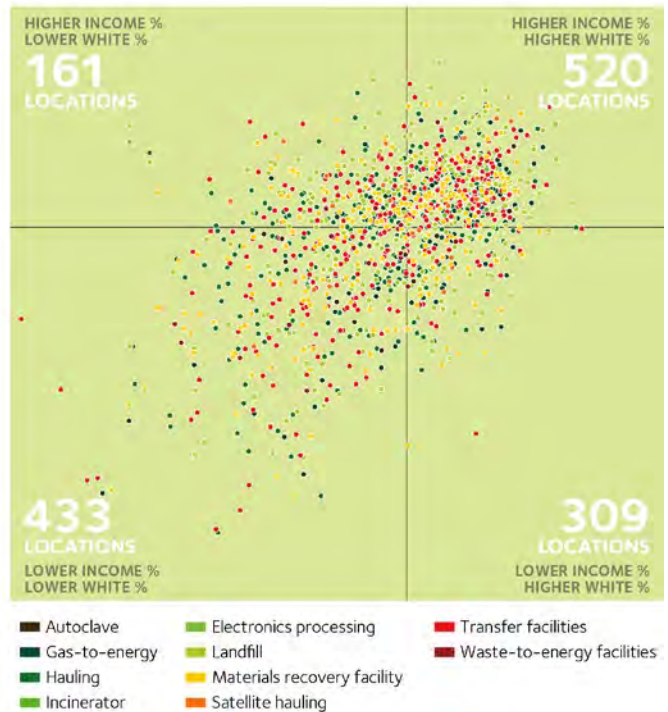
This collaboration provides Civicorps graduates a fast-track to careers as drivers, mechanics and administrative assistants at WMAC's Oakland facility. These positions provide stability and good benefits, helping foster promising livelihoods for vulnerable young adults, ages 18 to 26, in the community. At any given time, WMAC employs at least four Civicorps graduate students under the partnership.

BETTER COMMUNITIES

Environmental Justice

Waste Management continues to engage actively on the important issue of environmental justice.

The scatter graph to the right shows the distribution of all of Waste Management’s operations. In the upper quadrants are our facilities that are located in communities with income above the state average (measured at the 5-kilometer radius); in the lower quadrants are facilities found in communities with lower-than-average income in that state. In the right-hand quadrants are sites located in areas above the state average income in non-Hispanic white representation; the left-hand quadrants show facilities in communities under the state average income. Our methodology is that employed by noted environmental justice academic experts and by U.S. EPA in its regulatory programs. For more information on the methodology used to formulate this graph, please see p. 35 of the Appendix to our 2010 report.



When we first released this type of demographic footprint for our landfills and waste-to-energy facilities in 2010, we reached out to environmental justice experts to determine whether this was useful and whether our disclosure could be improved. The response was a request to expand our reporting to include all of our facilities, and we provide this here. The following table includes the breakdown of the types of waste and recyclables management facilities we operate and their demographics. The entire picture for Waste Management depicted in the scatter chart is generated automatically from a Microsoft Excel chart of our locations, U.S. census data, and state average race and income data.

Facility Type	% of Facilities Above Average Income	% of Facilities Above Average White Representation
Autoclave	64%	45%
Landfill gas-to-energy	35%	72%
Hauling companies	58%	56%
Medical waste incinerator	0%	100%
Electronics processing	50%	100%
Landfill	41%	68%
Materials recovery facilities	59%	47%
Satellite hauling	48%	66%
Transfer stations	54%	55%
Waste-to-energy	76%	41%
Total	48%	58%

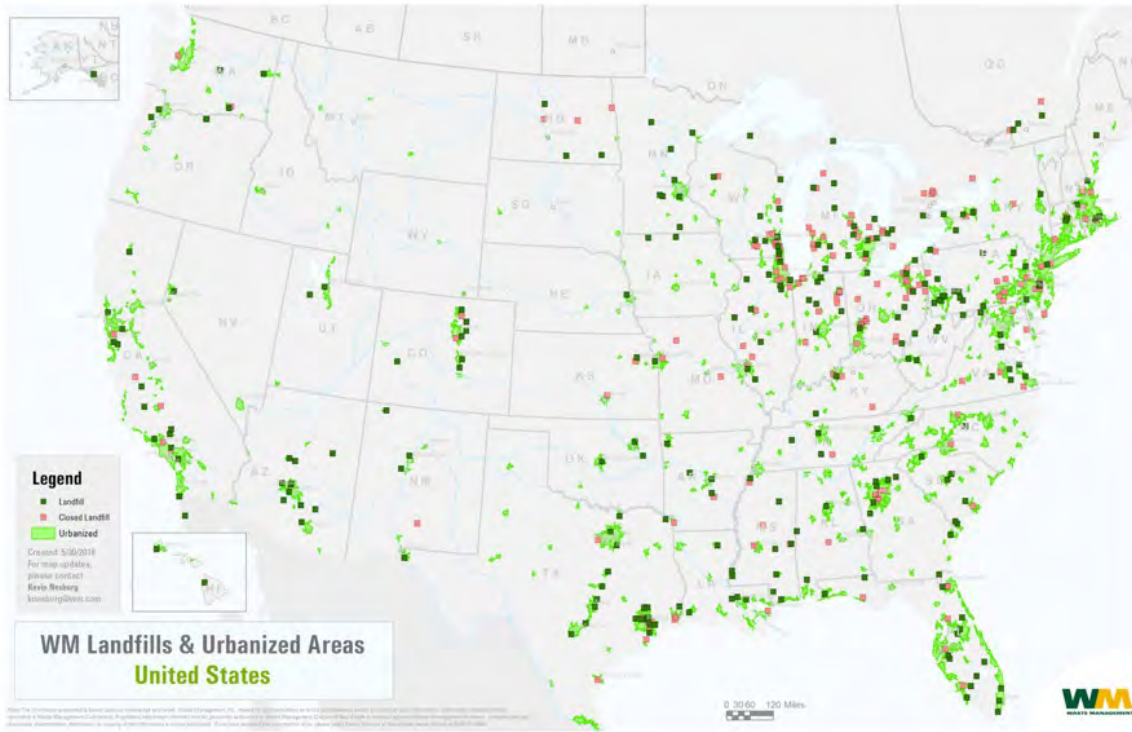
In 2015, our demographic footprint was modified by under five percent due to divestitures and acquisitions, and yearly changes have been smaller since that time. We did not undertake a comprehensive revision of our mapping in 2017 but did review the demographics of both divestitures and acquisitions and found their pattern would be somewhat higher in income and lower in non-white representation than our current footprint. We will update this information when a new census is conducted or when Waste Management undergoes an acquisition or divestiture sufficient to change our demographic footprint (whichever comes earlier).

AREAS OF DENSE POPULATION

Waste Management engaged with the Sustainability Accounting Standards Board (SASB) on consensus reporting standards for waste facilities. There was robust dialogue about means to use GIS-based systems to understand community concerns and potential impacts. SASB determined that the most useful measure across sectors would be mapping of potential air impacts from facilities in urban areas. We have provided the mapping they request. Waste Management has retained the demographic information requested by communities and regulators in prior years, but we also have mapped our landfills for location in areas of dense population. The following map provides the locations of closed and operating landfills Waste Management owns or operates.

Landfills in Urbanized Areas

Urbanization	Status	Total
Within an urbanized area	49 active, 73 closed	122
Within 5 km of an urbanized area	76 active, 59 closed	135
Outside a 5 km perimeter of an urbanized area	133 active, 68 closed	201



Stakeholder Engagement on a Daily Basis

Waste Management is one of hundreds of national, state and local organizations dedicated to solving environmental and social challenges. This diverse, extensive network helps us understand how we can provide value to the communities in which we operate through environmental stewardship and natural resource conservation.

All of our municipal solid waste and hazardous waste landfills and waste-to-energy facilities have some form of stakeholder engagement process — ranging from formal advisory groups to conservation projects, ongoing service to schools, engagement in local community groups, issuance of newsletters and creation of dedicated facility-specific web pages. Customer feedback is actively solicited at www.wm.com/contact-us.jsp.

National Partnerships

BUSINESS ASSOCIATIONS

ALTe Powertrain Technologies (advisory board member)

American Bar Association, Waste and Resource Recovery Committee (vice chair)

American Biogas Council (board member)

American Chemistry Council (affiliate member)

American Diabetes Association (CA)

AMERIPEN (board member)

Association of General Contractors of America

Association of Lighting and Mercury Recyclers (board member)

Association of Plastics Recyclers (board member)

Biomass Power Association

Business Council for Sustainable Energy

Business for Social Responsibility

Business Network for Environmental Justice (chair)

Coalition for American Electronics Recycling

The Coalition for Renewable Natural Gas

Edison Electric Institute (affiliate member)

Energy Security Leadership Council (board member)

Environmental Technology Council

Food Industry Environmental Council

Geosynthetic Institute (board member)

GreenBiz

Green Sports Alliance

Healthcare Waste Institute

Institute of Scrap Recycling, Inc.

Manufacturers Alliance for Productivity and Innovation (MAPI) — Ethics and Compliance Council

National Association of Manufacturers (board member)

National Minority Supplier Development Council

National Waste & Recycling Association (board member)

Natural Gas Vehicles America Council for Responsible Sport (board member)

RCRA Corrective Action Project

The Recycling Partnership

Securing America's Future Energy (board member)

Security Industry Association

Society of Corporate Compliance and Ethics

Superfund Settlements Project

The Sustainability Consortium (CorpExec council member)

Sustainable Brands

Sustainable Packaging Coalition

Sustainable Purchasing Leadership Council

Women In Trucking Association (advisory committee)

Women's Business Enterprise National Council

U.S. DOE National Clean Fleets Partnership

MULTISTAKEHOLDER GROUPS

Air & Waste Management Association

American Institute for Packaging and the Environment (AMERIPEN) (board member)

ASIS International

Association of Climate Change Officers

ASTM E50.04, Green and Sustainable Corrective Action Task Group

The Auditing Roundtable

Board of Environmental Health & Safety

California State University Fullerton, College of Natural Sciences and Mathematics —

Central Station Alarm Association

Chesapeake Bay Foundation

Climate Action Reserve

Conference Board, Council of Corporate Security Executives

Construction Materials Recycling Association (board member)

The Council of State Governments

Crime Stoppers (board member)

Democratic Attorneys General Association

Democratic Governors Association

Democratic Legislative Campaign Committee

Diversity Best Practices

Electronics Recycling Coordination Clearinghouse

Environmental Media Association (corporate board member)

Habitat for Humanity

Institute of Hazardous Materials Management

International City/County Management Association

International Security Management Association

Interstate Technology and Regulatory Council — Green and Sustainable Remediation team

Keep America Beautiful (national board member)

National Association of Counties — Resilient Counties Initiative

National Association of Latino Elected and Appointed Officials

National Association of Local Government Environmental Professionals

National Black Caucus of State Legislators, Corporate Roundtable

National Burglar and Fire Alarm Association

National Conference of State Legislators

National Environmental Conference Board (board member)

National Environmental Justice Conference and Training Program (board member)

National League of Cities

National Organization of Black Elected Legislative Women (NOBEL)

National Recycling Coalition (board member)

Northeast Recycling Council, Electronics Recycling Coordination Clearinghouse (founding member)

Product Stewardship Institute

Society of Former Special Agents of the FBI

Solid Waste Association of North America (three board members)

Sustainability Working Group (Dean's Advisory Council member)

Sustainable Materials Management Coalition

Sustainable Remediation Forum (SURF)

U.S. Composting Council

U.S. Conference of Mayors — Business Council Steering Committee

U.S. Conference of Mayors — Climate Protection Council

U.S. EPA Science Advisory Board Work Group on Environmental Justice in Rulemaking

U.S. Green Building Council

U.S. Zero Waste Business Council

Wildlife Habitat Council (chair and board member)

State Partnerships

BUSINESS ASSOCIATIONS

Arizona Chamber of Commerce (board member)	Indiana Manufacturers Association
Association of Commerce & Industry — Environment Committee	Iowa Recycling Association
Association of Oregon Recyclers	Iowa Society of Solid Waste Organizations
Association of Washington Businesses (board member)	James River Association (VA)
Business and Industry Association — New Hampshire	Latino Caucus of California Counties
California Chamber of Commerce	Leadership New Mexico
California Contract Cities Association	Louisiana Municipal Association
California Natural Gas Vehicle Coalition (board member)	Louisiana Solid Waste Association
California Refuse Recycling Council	Maine Chamber of Commerce
California Resource Recovery Association	Marcellus Shale Coalition (PA)
California Waste Association (board member)	Maryland-Delaware Solid Waste Association (NWRA) — (Board Member)
Californians Against Waste	MASSRECYCLE
CALSTART	Michigan Chamber of Commerce
Chemical Industry Council of Illinois	Michigan Manufacturers Association
Clean Energy Coalition	Michigan Municipal League
Colorado Association of Commerce & Industry	Michigan Recycling Coalition
Colorado Motor Carriers Association (board member)	Michigan Township Association
Delaware Chamber of Commerce	Michigan Waste & Recycling Association (MWRA)
Environmental Business Council Massachusetts	Minnesota Chamber of Commerce
First Tee (local chapters; board member)	Minnesota Chamber of Commerce — Environment and Natural Resources Committee (vice chair)
Florida Chamber of Commerce (Board of Governors and Political Institute)	Minnesota Chamber of Commerce — Waste Subcommittee (chair)
Florida Recycling Partnership (chair)	Minnesota Clerks & Finance Officers Association
Florida TaxWatch	Minnesota Environmental Initiative
Georgia Chamber of Commerce	Mississippi Association of Supervisors
Illinois Food Scrap Coalition (IL Chapter of US Composting Council) (board member)	Mississippi Municipal League
Illinois Manufacturers Association	Municipal Solid Waste and Resource Advisory Council (chair)
Independent Energy Producers Association	National Waste & Recycling Association Chairman — Carolinas, Florida, Maryland, Ohio, Colorado Chapters)
Independent Oil and Gas Association (IW)	New Jersey Business and Industry
	New Jersey State Chamber of Commerce

New Mexico Recycling Association
 New York State Business Council
 North Carolina Chamber of Commerce
 North Central Texas Council of Governments —
 Resources Conservation Council
 North Dakota Chamber of Commerce
 North Dakota Solid Waste & Recycling Association
 Ohio Chamber of Commerce Environmental Initiative —
 Business & Environment Series
 Ohio Environmental Service Industries
 Ohio Manufacturers' Association
 Ontario Environment Industry Association
 Ontario Waste Management Association
 Oregon Refuse & Recycling Association (board member)
 Pennsylvania Business Council
 Pennsylvania Chamber of Business and Industry
 Pennsylvania Resources Council
 Pennsylvania Waste Industries Association (NWRA)
 Police Jury Association of Louisiana
 Professional Recyclers of Pennsylvania
 (board member, president)
 Recycle Florida Today (legislative committee chair)
 Recycling Association of Minnesota
 Rethink Recycling
 Ronald McDonald House
 South Carolina Business & Industry Political Education
 Committee (BIPEC)
 South Carolina Chamber of Commerce
 South Carolina Manufacturers Alliance
 Southeast Recycling Conference
 Southern Waste Information eXchange
 Space Coast Field of Dreams — Brevard County
 State of Texas Alliance for Recycling
 (board member and officer)
 Sustainable Florida (board member)
 Take Care of Texas
 Texas Association of Business
 Texas State Bar
 Utah Trucking Association
 Utilities Telecommunications & Energy Coalition of West
 Virginia (board member)
 VIRGINIAforever (board member)
 Virginia Recycling Association
 Virginia Waste Industries Association (NWRA) (Vice Chair)
 Washington Refuse & Recycling Association
 (board member)
 Washington State Recycling Association
 Waste 2 Resources Advisory Committee
 Waste Cap Resource Solutions
 West Virginia Haulers Association
 West Virginia Landfill Managers Association
 West Virginia Oil and Natural Gas Association
 Western Washington Clean Cities
 Wisconsin Manufacturers & Commerce
 Working Californians

MULTISTAKEHOLDER GROUPS

Alaska Native Village Corporation Association	Greater Oklahoma City Chamber of Commerce (advisory board of directors)
American Public Works Association (New York and Michigan)	Great Plains Institute
Apogee Retail/Lupus Foundation	Greens Bayou Corridor Coalition
Associated Recyclers of Wisconsin	Indiana Hunter Education
Association of Minnesota Counties	Iowa Governor's Anti-Litter Task Force
Association of New Jersey Recyclers	Iowa League of Cities
Association of Washington Cities	Ivy Tech College — Sustainable Energy Advisory Board (Indiana)
Association of Washington Counties	Kansas Energy and Environmental Policy (KEEP) Advisory Group
The California Climate Action Registry	Keep America Beautiful (gold sponsor)
California Cumulative Risk Advisory Committee	Keep America Beautiful — State Chapters (board members and officers)
California Product Stewardship Council	Keep Florida Beautiful
California Stormwater Quality Association	Keep Louisiana Beautiful (board member)
Carolina Recycling Association	Keep Michigan Beautiful
CASA (Court Appointed Special Advocates for Children (LA))	Keep Mississippi Beautiful (board member)
Children's Hospital of Wisconsin Foundation	Keep North Carolina Beautiful (board Member)
Clean Communities	Keep Texas Beautiful
Clean Energy Coalition, Michigan	Keep Virginia Beautiful (board member)
The Climate Registry	Las Virgenes Unified School District — Environmental Stewardship
Colorado Alliance for Environmental Education	Leadership Council of Southwestern Illinois
Colorado Association for Recycling (board member)	League of Arizona Cities and Towns
Colorado Counties Foundation (board member)	League of Minnesota Cities
Colorado Environmental Coalition	Louisiana Motor Transport Association (board member)
Colorado Municipal League	Maine Nature Conservancy
Corona Chamber of Commerce (board member)	Maryland Commission on Climate Change (commissioner)
Denton County Behavioral Health Leadership Team (Texas/Oklahoma)	Maryland Recycling Network (board member)
Environment Virginia	Michigan Association of Environmental Professionals (board member)
Epilepsy Foundation	Michigan Department of Natural Resources — Solid Waste Advisory Committee
Federation of New York Solid Waste Associations	Minnesota Energy Smart (board member)
Federation of Oklahoma Lewisville City Council	Minnesota Environmental Initiative (board member)
Florida Association of Counties	Minnesota Multi Housing Association
Goodwill Industries International	
Greater Gulf Coast Apartment Association	

Minnesota Pollution Control Agency — Construction, Demolition and Industrial Landfill Work Group
 Minnesota Waste Wise Foundation (board member)
 Mississippi American Public Works Association
 Mississippi Economic Council
 Mississippi Hotel Restaurant Association
 Mississippi Manufacturers Association
 Mississippi Recycling Coalition (board member)
 Muscular Dystrophy Association
 National Audubon Society (state chapters)
 Natural Resources Foundation of Wisconsin
 New Mexico Association of Counties
 New Mexico Environment Department — Working Groups on Environmental Justice and Recycling
 New Mexico Governor’s Task Force on Greenhouse Gases
 New Mexico League of Cities and Towns
 New Mexico Recycling Coalition
 New York League of Conservation Voters
 North Dakota League of Cities
 Northwest Florida League of Cities
 Ohio Materials Management Advisory Council
 Oregon Business & Industry
 Pennsylvania Department of Environmental Protection — Water Resources Advisory Committee’s “Total Dissolved Solids” Stakeholder Group
 Pennsylvania Environmental Justice Advisory Committee (board member)
 Pheasants Forever
 Recycle Florida Today (board member)
 Regional Greenhouse Gas Initiative
 Salvation Army
 SHINE Foundation — Board of Directors (Texas/Oklahoma)
 Solid Waste Association of North America, State Chapters (board members and officers)
 Solid Waste Management Districts — Citizens Advisory Boards (multiple — Indiana)
 Solid Waste Steering Committee for Environment (Texas/Oklahoma)
 State of Texas Alliance for Recycling (board member and legislative committee chair)
 Susan G. Komen for the Cure
 Take Care of Texas (TX)
 Texas Association of Environmental Professionals — Treasurer Society
 Texas Audubon Society (board member)
 Texas Commission on Environmental Quality — Pollution Prevention Advisory Committee
 Texas Society for Ecological Restoration
 University of Wisconsin Madison Arboretum
 U.S. Green Building Council — Los Angeles Chapter
 Utah Association of Counties
 Utah League of Cities and Towns
 Utah Recycling Coalition
 Virginia Association of Counties
 Washington Conservation Voters, Western Climate Initiative

Local Partnerships

BUSINESS ASSOCIATIONS

Baton Rouge Chamber of Commerce (LA)

Battle Creek Chamber of Commerce (Michigan)

Boys & Girls Club of East County —
El Cajon/Santee, CA (board member)

Brooklyn Chamber of Commerce (NY)

Broussard Chamber of Commerce

Buffalo Niagara Partnership (New York)

Cajon Valley Union School District Board (El Cajon, CA)

Canton Road Business Association
(board member) (Georgia)

Cardenas Family Foundation — local scholarships (CA)

Carlsbad Chamber of Commerce (CA)

Carson Citizens Cultural Arts Foundation (CA)

Cashmere Chamber of Commerce (Washington)

Catholic Big Brothers/Big Sisters (CA)

Chamber of Commerce of the Mid-Ohio Valley

City of Destin Chamber of Commerce (FL)

City of Madison Chamber of Commerce

City of Niceville-Valparaiso Chamber of Commerce (past
chairman/current board of directors)

Clean Pittsburgh Commission

Clinton River Watershed Council (Michigan)

Detroit Regional Chamber of Commerce (Michigan)

Dothan Chamber of Commerce

Downtown El Cajon Business Partners (El Cajon, CA)

DSNY Columbia Society (NY)

DSNY Emerald Society (NY)

Duluth Chamber of Commerce (Minnesota)

Duvall Chamber of Commerce (Washington)

East County Economic Development Council (El Cajon, CA)

East County Transitional Living Center (El Cajon, CA)

Eastpointe/Roseville Chamber of Commerce (Michigan)

Economic Alliance Snohomish County (Washington)
(board member)

El Cajon Rotary Club (El Cajon, CA)

Evergreen Exchange (NY)

Ferris Main Streets Advisory Board

Festival International de Louisiana

Flowood Chamber of Commerce

Foothill Area Booster Association (Pacoima, CA)

Forest Area Chamber of Commerce

Friends of Los Angeles River (FoLAR) (CA)

Friends of Rouge (Michigan)

Gladstein, Neondross & Associates
(Methane Symposium) (CA)

Golden Chamber of Commerce (Colorado) (board member)

Greater Dallas-Fort Worth Recycling Alliance (secretary)

Greater Elizabeth Chamber of Commerce

Greater Houston Business Ethics Roundtable

Greater Houston Partnership

Greater Jackson Partnership (FL)

Greater Kirkland Chamber of Commerce (Washington)

Greater Spokane Incorporated (Washington)

Greater Spokane Valley Chamber of Commerce
(Washington) (board member)

Green Acres Interactive Therapy (GAIT) (CA)

Green Oceanside Business Network (CA)

Harrison County Chamber of Commerce (Texas)

Hispanic 100 (CA)

Hollywood Beautification Team (CA)

Houston Bar Association

Huron River Watershed Council (Michigan)

Independent Cities Associations (ICA —
Manhattan Beach) (CA)

Irvine Chamber of Commerce (CA)

Irvine Public Schools Foundation (CA)

Jackson County Chamber of Commerce (FL)

Kalamazoo County Council of Governments (Michigan)

King George Family YMCA (VA)
 Kittitas County Chamber of Commerce (Washington)
 Lafayette Rotary (board member)
 Lake Houston Area Chamber of Commerce
 Laguna Beach Chamber of Commerce (CA)
 League of California Cities — Latino Caucus (CA)
 Livingston Parish Chamber of Commerce (LA)
 Local Chambers of Commerce (New Hampshire, Illinois and Indiana) (board members)
 Long Beach Education Foundation (CA)
 Los Angeles Alliance for a New Economy (LAANE) (CA)
 Los Angeles Police Dept (LAPD) Devonshire PALS (CA)
 Madison County Business League
 Maspeth Chamber (NY)
 Mid-Valley Family YMCA (CA)
 Mission Viejo Chamber of Commerce (CA)
 Mobile County Chamber of Commerce
 Newcastle Chamber of Commerce (Washington)
 Niagara USA Chamber (New York)
 North Texas Corporate Recycling Association
 North Valley Family YMCA (CA)
 Oceanside Chamber of Commerce (CA)
 Okaloosa County Chamber of Commerce
 One Acadiana Chamber of Commerce
 One Redmond (Washington)
 Orion Area Chamber of Commerce (Michigan)
 Pacoima Beautiful (CA)
 Pearl Chamber of Commerce
 Phoenix Chamber of Commerce
 Pike Chamber of Commerce
 Portland Business Alliance (Oregon)
 Rainier Valley Chamber of Commerce (Washington)
 Rankin First Chamber of Commerce
 Reno/Sparks Chamber of Commerce (Nevada)
 Ridgeland Chamber of Commerce
 Rio Rancho Regional Chamber of Commerce (New Mexico)
 Saint Madeline's Sophie Center (El Cajon, California)
 Salt Lake City Chamber of Commerce (Utah)
 San Diego Downtown Partnership
 San Diego East County Chamber of Commerce Board Member (El Cajon, California)
 San Diego Regional Chamber of Commerce (CA)
 Santa Ana Chamber of Commerce (CA)
 Santee Chamber of Commerce Board Member (Santee, California)
 Santee Lakeside Rotary Club (Santee, California)
 Santee School District Board (Santee, California)
 Seattle Metropolitan Chamber of Commerce (Washington)
 Seattle Southside Chamber of Commerce (Washington)
 Simi Valley Chamber of Commerce (board member)
 Simi Valley Kiwanis Illegal Dumping Task Force Committee
 Southern California Sustainability Support Group
 Southwest Louisiana Chamber of Commerce
 Spokane Chamber of Commerce
 Sterling Heights Regional Chamber of Commerce & Industry (Michigan)
 Sumter County Chamber of Commerce
 Tempe Chamber of Commerce (Arizona)
 Tree People (CA)
 Texas Society for Ecological Restoration (secretary)
 Tri-City Regional Chamber of Commerce (Washington)
 United Way of Great L.A. (CA)
 USC — Sol Price of Public Policy (CA)
 Vicksburg-Warren County Chamber of Commerce
 Wallington Chamber of Commerce Board Member (Washington)
 Walton County Chamber of Commerce
 Wenatchee Valley Chamber of Commerce (Washington)
 West Seattle Chamber of Commerce (Washington)
 Westside Economic Alliance (Oregon)
 Youngsville Chamber of Commerce

MULTISTAKEHOLDER GROUPS

Air Alliance of Houston

Air & Waste Management Association — Alamo Chapter

Alaqua Animal Refuge (FL)

All-Earth Ecobots Challenge

American Cancer Society — Metro Golf Classic (board member)

American Leadership Forum

American Public Works Association — Monroe County

ARISE Detroit! — Neighborhoods Day

Bayou Preservation Association (board member)

Belleville Area Council for the Arts

Benedictine University — Business with Science Applications Program (board member)

Big Brothers/Big Sisters (board member)

Boy Scouts of America (multiple chapters in many states)

Boys & Girls Clubs

Bremen Food Pantry (Indiana)

The Brunswick Starr (NY)

Bucks County Parks and Recreation Board (chair)

Buffalo Bayou Partnership (board member)

Cannon River Watershed Partnership

Children in Crisis (FL)

Chippewa/Luce/Mackinac Conservation District

Christian County, Illinois — Economic Development Corp. (board member)

Churchville-Riga Chamber of Commerce Executive Board (New York)

City and County of Honolulu — Solid Waste Advisory Committee

City of Baltimore — Cleaner Greener Fund

City of Elgin, Illinois — Sustainability Task Force

City of Oklahoma City — Office of Sustainability (steering committee member)

City of Peoria, Illinois — Sustainability Commission

City of Simi Valley, California — Sustainability Committee

Clare County, Michigan, Solid Waste & Recycling Committee (two board members)

CLEAN (Committing to Litter Enforcement and Adopting Neighborhoods) Initiative (Peekskill, New York)

Clinton River Watershed Council

Cobb County Neighborhood Safety Commission (board member)

Community Character Coalition — Elk Grove Village, Illinois

County of Manitowoc — Clean Sweep Program (Wisconsin)

DeKalb County Economic Development Corporation (Illinois)

Detroit Green Task Force

Detroit Motor City Makeover

Drexel University Office of Research — Biosafety Committee (board member)

EASE (Emergency Assistance Service Effort) Foundation (Davie, Florida) (board member)

Emerald Coast Apartment Association (FL) (board member)

Fairmont Medical Center

Food for Thought Outreach (FL)

Friends of the Rouge (current supporter, former board member)

Greater Houston Partnership (board member)

Green Houston (board member)

Hermann Park Conservancy (board member)

Hopelink (Washington)

Houston Arboretum & Nature Center (board member)

Houston Food Bank

Houston Wilderness (board member)

Humble ISD Education Foundation (Texas/Oklahoma)

Illinois Mathematics and Science Partnerships Program — Aurora University

Intertwine Alliance (Oregon)

Junior League of Houston

Keep America Beautiful Organization — Detroit Keep It Moving

Keep Baton Rouge Beautiful (board president)

Keep Brevard Beautiful (Florida)
 Keep Collier Beautiful (Florida)
 Keep Detroit Beautiful (Michigan)
 Keep Houston Beautiful
 Keep Jackson Beautiful (Mississippi)
 Keep Omaha Beautiful
 Keep Reservoir Beautiful (Mississippi) (board member)
 Keep Saginaw Beautiful
 Keep Shawnee County (KS) Beautiful
 Keep Truckee Meadows Beautiful (Reno, NV)
 King County Solid Waste Advisory Committee
 Kirkland Downtown Association (Washington)
 Lake Orion Education Foundation
 Lake St. Clair South Channel Light Keepers
 Lake Washington School Foundation (Washington)
 LaSalle County, Illinois — Citizens Advisory Board
 Leadership Broward (Broward County, Florida)
 Leadership Houston (board member)
 Life Time Fitness — Torchlight 5k
 Macomb Conservation District (supporter)
 Marquette Area Blues Society
 Merrimack Valley Economic Development Council, Inc.
 (Lawrence, Massachusetts)
 Michigan Alliance of Environment and Outdoor Education
 Michigan Association of Environmental Professionals
 (board member) and chair of environmental education
 grant committee)
 Monroe County Recycling Advisory Committee
 Montgomery County Keep America Beautiful (Ohio)
 Morrison, IL Rotary Club (member)
 Mountains to Sound Greenway Trust (Washington)
 (board member)
 National Wild Turkey Federation (Tioga Chapter, Indiana)
 Nat Moore Foundation
 The Nature Conservancy of Houston (board member)
 Neighborhood House, Peoria, Illinois
 New York City Center for the Urban Environment
 New York League of Conservation Voters Education Fund
 (NYLCVEF)
 Niceville High School Youth Advisory Council
 NY Sun Works (NY)
 Oregon Food Bank
 Oregon Green Schools
 Orion Art Center
 PARA — Pace Athletic and Recreation Association of Santa
 Rose County (FL) (board member)
 The Park People (board member)
 Partners for Environmental Progress (Mobile, AL)
 Partners in Education (Broward County, Florida)
 Pheasants Forever Chapters (board member)
 Portland Metro Solid Waste Advisory Committee
 Recycling Task Force, Solid Waste Agency,
 Lake County, Illinois
 Relay for Life
 Richmond Regional Youth Facility
 Roundy's Foundation/Milwaukee Public Library
 SEARCH (board member)
 Seattle Solid Waste Advisory Committee
 Simi Valley Boys & Girls Club (board member)
 Simi Valley Cultural Arts Association (board member)
 Simi Valley Education Foundation (board member)
 Simi Valley Family YMCA (board member)
 Simi Valley Police Foundation (board member)
 Simi Valley Police Officers Association (board member)
 Six Rivers Land Conservancy
 SoBro (NY)
 South Baltimore Learning Center (board member)
 Southside Manor Apartments, Peoria, Illinois
 St. James Farm Forest Preserve (volunteer)
 St. Nick's Alliance (NY)
 Suburban Cities Association
 Sun Valley Beautiful
 Sustainable DC Working Group
 Swim Teal Lake — Diabetes Benefit

Taylorville, Illinois, Development Association
(board member)

Taylorville, Illinois, Midland Community Bank
(board member)

Taylorville, Illinois, Vision Way Christian School
Board (board member)

Three Rivers Festival Committee (Channahon,
Illinois)

University of Southern California —
Sustainable Enterprise

Executive Roundtable (SEER) Project

Urban League (local board member)

U.S. Green Building Council — Inland
Empire Chapter

Ventura County Economic Development
Association

Village of Lake Orion Downtown

Development Authority

Washington DC Metropolitan Scholars (
board members)

Waterfowl USA (supporter)

Whiteside County (IL) Fair (board member)

Whiteside County Sheriffs Merit Commission (IL)
(board member)

Will County, Illinois, Center for Economic
Development

Wisconsin Clean Cities, Southeast Area

Women in Distress, Inc.

Women's Center (board member)

YMCA of Broward County

YMCA of Miami-Dade County