TODAY, WE'RE REINVENTING **OUR BUSINESS** Sustainability Report 2010 RE-ENVISIONING THE NATURE OF WASTE ITSELF. **WELCOME TO WASTE** MANAGEMENT.



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This report is structured in three "books." The first provides context and introduction to our business, with a letter from our CEO that highlights our approach to sustainability. The second outlines our core business activities, our impacts and how we are driving improved performance across our company. The third speaks to how we're partnering with our customers and others to recover more of the value in waste and help power a sustainable future.



Throughout this report, this icon indicates that additional information on a topic can be found on that page in the Appendix. The Appendix can be found at www.wm.com/sustainability/index.jsp.

This report covers the sustainability activities of Waste Management's North American operations. It builds on a tradition of reporting that began nearly two decades ago when we started publicly reporting our environmental impacts. It provides valuable information on our environmental, economic and social performance and tells how we are helping communities, businesses and individuals progress on their sustainability journeys.



LETTER FROM THE CEO

Dear Valued Stakeholder,

The business of managing wastes used to be straightforward. A generation ago, we were a company that picked up trash – and disposed of it.

Today, we're reinventing our business model and reconsidering the nature of waste itself. They say that one man's trash is another's treasure. At Waste Management, this is literally true. An estimated \$8-10 billion in value may reside in the waste we manage each year in North America. Our focus is on recovering that value – and that's what sets us apart from our competitors. Using our expertise and capabilities, we are capturing value from waste streams - whether by processing wastes to provide recycled raw materials that have lower carbon and water footprints, or by generating clean energy from waste-to-energy and landfill gas plants. Waste is no longer something to get rid of - it's a resource.

## Providing Valued Environmental Solutions to Our Customers

Our customers are recognizing that environmental sustainability can help them cut costs and improve their operations. Some are even setting "zero waste" goals. Our Upstream and Green Squad businesses help customers reach their sustainability goals by looking at their wastes and resource use in a holistic

way. We evaluate every aspect of their operations and recommend overall strategies for operating more sustainably – from maximizing recycling to reducing waste to avoiding the generation of waste in the first place.

#### Extracting More Value from the Materials We Manage

You may be surprised to learn that our company produces more renewable energy than the entire solar industry, simply by making energy from waste. According to the U.S. Energy Information Administration, in 2009 just over 800,000 megawatt-hours of power were produced from solar energy in the United States. That same year, Waste Management's waste-based energy operations produced 8.6 million megawatt-hours of power.

In addition to our waste-to-energy plants that use garbage as clean-burning, renewable fuel, we've pioneered a process that capitalizes on a simple biological process. When bacteria break down trash in a landfill, the resulting methane can be captured and used as fuel to make heat or electricity.

#### **Setting Ambitious Sustainability Goals**

Two years ago, I committed that by 2010 we would measure and disclose our carbon footprint. I am pleased to say that this effort is complete and included in this report.

We also announced four aggressive sustainability goals for our business:

To increase waste-based energy production: Today we create enough energy through our waste-to-energy operations to power almost 1.1 million homes, and our goal is to double that by 2020. By the end of 2009, we had increased our landfill-gas-to-energy plants to 119. 2009 was a year of planting the seeds for future growth in waste-to-energy with Wheelabrator's expansion into Europe and China and the addition of a 17th waste-to-energy plant in the U.S. finalized in 2010.

To increase the volume of recyclable materials we process: We continue to be North America's largest residential recycler. In 2009, we managed 8.5 million tons of recyclable commodities. The last quarter of 2008 and early 2009 were challenging as recyclable commodity prices took a nosedive along with the economy. Fortunately, we saw great improvement in late 2009, and our commitment to recycling remains strong. In 2010, we acquired new organics processing capacity, bringing our total to 34 facilities processing 1.25 million tons of organics annually. Our goal is to manage more than 20 million tons each year by 2020.

To invest in cleaner technologies: We continue our work with suppliers to lower the emissions and increase the efficiency of our fleet and to invest in technologies for greener ways to manage waste. Over the next 10 years, our goal is to reduce emissions and increase fleet efficiency 15 percent. We are implementing a range of technologies to make our trucks more efficient, including controlling emissions, using alternative fuels and optimizing truck design. By the close of 2010 we expect to approach our target of having 1,000 natural-gas-powered trucks in our fleet, and 80 percent of our truck buy for

2011 is planned to be natural gas. We also are working on green technologies to convert waste to fuel, investing in plants that convert landfill gas to liquefied natural gas, plants to convert organic waste to high-octane transportation fuel, and a plasma gasification joint venture, to name just a few.

To protect more wildlife habitat across North America: I am pleased to say that we have already achieved our fourth goal of providing wildlife habitat at our landfills – 10 years ahead of schedule. During 2010 we completed Wildlife Habitat Council certification at 100 landfills protecting more than 25.000 acres.

#### Looking Ahead

The path to a more sustainable future is about all of us who stand at the intersection of business and the environment. At Waste Management, our charge is clear. We will strive to find new and better ways to provide our customers with valued environmental solutions. We will extract more value from the materials we manage. And we will continue to challenge ourselves to minimize our own operational footprint and improve the environment, even as we help our customers do the same.

Our business has never been more relevant to the world we live in and the challenges our customers face than it is today. And our opportunity has never been greater. That opportunity excites me – and inspires all of us at Waste Management, each and every day. We look forward to sharing that journey with you.

Respectfully,

Paren

**David P. Steiner**Chief Executive Officer

#### WASTE MANAGEMENT IN SUMMARY

Waste Management is the largest provider of comprehensive waste and environmental services in North America, as well as North America's largest municipal waste recycler and a leader in waste-based energy technologies. Headquartered in Houston, Texas, the company is publicly traded (NYSE:WM). We serve over 20 million customers with environmentally sound management of solid wastes and transformation of waste into usable resources.

+20 MILLION CUSTOMERS	390 COLLECTION OPERATIONS	1 ACTIVE HAZARDOUS WASTE UNDERGROUND INJECTION WELL	345 TRANSFER FACILITIES
CONSTRUCTION & DEMOLITION RECYCLING FACILITIES	INDEPENDENT POWER PRODUCTION PLANTS, 2 PRODUCE RENEWABLE ENERGY	119 LANDFILL- GAS-TO- ENERGY PROJECTS	273 ACTIVE MUNICIPAL SOLID WASTE LANDFILLS, 5 ARE
91 TRADITIONAL	8 ELECTRONIC WASTE &	34 ORGANIC PROCESSING FACILITIES*	ACTIVE HAZARDOUS WASTE LANDFILLS
RECYCLING FACILITIES 31 ARE SINGLE STREAM*	RECYCLING SECONDARY PROCESSING FACILITIES	17 WASTE- TO-ENERGY PLANTS*	OVER 43,000 EMPLOYEES

<sup>\*</sup>As of September 2010

#### SUSTAINABILITY GOALS AND KEY PERFORMANCE INDICATORS, 2007-2009

2020 GOAL: 20 Million Tons  Waste-Based Energy Production 1,073,000 1, 2020 GOAL: 2 Million Households  Fleet Efficiency¹ 2 mill 2020 GOAL: 15% Improvement 853 1,2,200  Number of Wildlife Habitat sites 24	natural gas	8.5 million  1,073,000  hours reduced; vehicles added; using biofuels  73  24,000
2020 GOAL: 2 Million Households         Fleet Efficiency¹       2 mill         2020 GOAL: 15% Improvement       853 i         2,200         Number of Wildlife Habitat sites       24	lion driver natural gas 0 vehicles 49	hours reduced; s vehicles added; using biofuels
2020 GOAL: 15% Improvement 853 2,200  Number of Wildlife Habitat sites 24	natural gas 0 vehicles 49	vehicles added; using biofuels
	21,000	24,000
Number of Acres Protected 17,000 2020 GOALS: 100 Sites; 25,000 Acres		
Other Key Indicators		
	,385,000	5,591,000
	,890,000	21,563,000
Greenhouse Gas (GHG) Emissions <sup>3</sup> (metric tons carbon dioxide equivale • Process	ents)	21,552,559
Transportation		1,754,977
• Energy use		357,141
Potential avoided GHG emissions from:		
Renewable energy generation		3,504,234
Waste-derived fuels produced and sold		23,976
Reuse and recycling of materials		5,621,788
• Carbon permanently sequestered in landfills <sup>4</sup>		17,703,584
Resource Savings Achieved through Recycling		
Energy savings – equivalent     (number of households/year)     1.4 million     1.4 million	1.3 million	1.4 million
• GHG savings – per passenger car equivalent 4.8 million 4.0 (number taken off the road/year)	1.8 million	4.8 million
Total Recordable Injury Rate 4.3 (decline represents improvement)	3.6	3.1
Vehicle Accident Rate 8,974 (rise indicates improvement)	10,379	12,066
Percent of Waste Management's Modern 0 Landfills that Have Contaminated Groundwater	0	0
Charitable Giving \$11,279,775 \$14	,485,838	\$12,861,665

<sup>&</sup>lt;sup>1</sup>We have made important progress toward our fleet efficiency and emissions goals, reducing driver time through efficient routing, replacing older engines with new engines equipped with diesel particulate filters and selective catalytic reduction technology, reducing vehicle weight, employing 853 natural gas vehicles and employing 2,200 vehicles that run on various blends of biodiesel. In 2012, we will be able to quantify the impacts on our fleet in terms of fleet efficiency and emissions. <sup>2</sup>Equivalent number of households that could be powered by Waste Management's energy production. Note that standard industry assumptions about household energy use differ for the waste-to-energy and landfill-gas-to-energy sectors. See pages 15 to 19 for details.

<sup>32009</sup> is the base year for Waste Management's carbon footprint so data from previous years are not available. Changes to the footprint will be reported in our next sustainability report. Please see pages 34 to 37 for discussion of the footprint and data notes.

<sup>&</sup>lt;sup>4</sup>See the Appendix, page 28 for discussion of the protocol used for this indicator. We are not presuming to characterize how emerging regulatory programs will allocate credit for these avoided emissions, so we do not claim these greenhouse gas reduction benefits as our own, nor attempt to deduct these reductions from our carbon footprint.

#### ABOUT THIS REPORT

Waste Management is committed to issuing a detailed sustainability report every two years. This report updates our 2008 Sustainability Report, providing data trends for 2008 and 2009 with key developments in 2010 where information was available prior to publication. All quantitative data in the report were audited by Waste Management's Corporate Internal Audit Department. Notes on the scope of the data are included with the data charts.

This report covers Waste Management's wholly owned operations, all of which are located in North America. In 2009, Waste Management entered into new business partnerships to develop waste-to-energy projects in the United Kingdom, Western Europe and China. Information on those partnerships will be included in the next sustainability report.

We focus our reporting on the following themes that we have identified through internal and external consultation to be most material:

- · Focusing on our customers' sustainability needs
- · Reducing and recycling wastes generated by others
- · Converting waste into renewable energy, fuels and chemicals
- Managing our waste treatment, materials processing and disposal facilities to exceed regulatory obligations
- · Serving as responsible stewards of the land

This report will be valuable to our key stakeholders, including customers, investors, regulators and other government officials, community members, business partners, nongovernmental organizations, and most importantly – our employees. We continuously consult with these stakeholders, who have influenced the content of this report.

#### GLOBAL REPORTING INITIATIVE

This report is aligned with the Global Reporting Initiative (GRI) G3 Sustainability Reporting Guidelines, released in October 2006, at a self-checked application level of "B." The Appendix contains a complete index of GRI indicators at 2. More information on the GRI and the application levels can be found on the GRI website.



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We welcome your feedback on this report, as it helps us to improve future reports. Please contact:

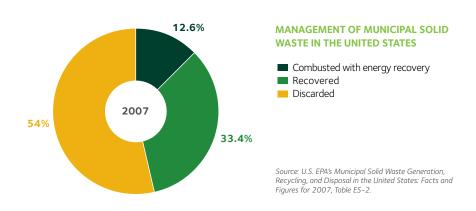
**Lynn Brown** Vice President, Corporate Communications Lynnbrown@wm.com (713) 394-5093



#### PROVIDING ENVIRONMENTAL SERVICES

At Waste Management, we see the garbage we collect as a resource. From the moment waste leaves the curb, it can go to a recycling center to be repurposed for further use; to a clean power plant for use as fuel to provide renewable energy; to a composting facility where organic waste can be converted into a nutrient-rich soil amendment or a high-octane vehicle fuel; or to a landfill where it creates energy as it decomposes.

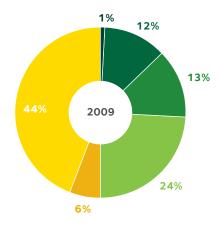
We work with municipal customers and manufacturers alike to develop strategies to reduce, reuse, recycle and recover the value from waste, which minimizes environmental impact on the planet and saves our customers money.

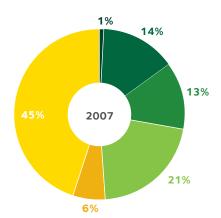


Every day in the United States, each person produces about four and a half pounds of garbage. That adds up to one ton of waste per person each year, more than half of which goes to landfills. Historically, particularly in the United States, products were simply discarded at the end of their use. But demand for scarce resources and rising energy costs have started to change the way the world works. Companies are scrambling to satisfy consumer demand for environmentally friendly products, meet changing governmental regulations and achieve cost savings through manufacturing processes that use energy and materials efficiently. Increasingly, trash is seen as too valuable to just throw away.

Our business mix is evolving from traditional waste collection and disposal to various forms of resource recovery (see figures below). During 2009, our revenues were split almost evenly between traditional collection and disposal and green services. The most significant change in our mix of business between 2007 and 2009 was the increase in the proportion of revenue from collection and transfer to green facilities (by nearly three percentage points). Our proportion of revenues from recycling declined two percent during the reporting period.

During 2008 and 2009, recycling rates were challenged by global economic turmoil. For part of this period, a collapse in the market price for recyclable commodities, particularly paper, turned recycled materials from a valuable asset to a nearly worthless commodity. This affected support for municipal recycling programs — suppressing both demand for recycling services and revenues from the sale of commodities. Fortunately, in 2010, markets are improving and demand for recyclables increasing. Through it all, Waste Management continued to be fully committed to remaining North America's largest recycler and even made strategic acquisitions to increase capacity. We significantly expanded the range of our recycling capabilities through the acquisition of traditional recycling, e-waste, organics and compact fluorescent lighting (CFL) recycling capacity.





#### **WASTE MANAGEMENT MIX OF BUSINESS**

#### **GREEN SERVICES**

#### Newest Innovative Service Lines

Includes Organic Growth Group/Upstream revenues.

#### Recycling

Includes Waste Management Recycle America, Recycling Material Sales and Brokerage, landfill revenues from Revenue Generating Cover and Redirected Waste, and recycling revenue within the collection line of business.

#### Green Energy Production Facilities

Includes Wheelabrator green energy facilities, Waste Management renewable energy and landfill-gas-to-energy facilities, and landfills with bioreactors.

#### Green Collection/Transfer

Includes inter-company revenues from collection/transfer station operations to Waste Management "green" facilities (landfills generating energy, waste-to-energy facilities, recycling facilities).

#### TRADITIONAL SERVICES

#### Traditional Landfill

Includes revenues from disposal in landfills not used for energy recovery. Hazardous waste revenue is included in this category.

#### Traditional Collection/Transfer

Includes traditional collection and transfer station lines of business.

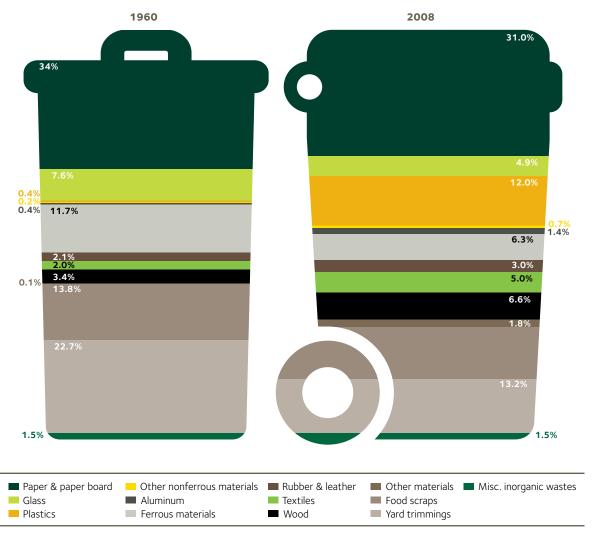
Source: Full year 2007 and 2009 revenue data

#### What's In Our Trash?

In today's increasingly resource-constrained world, what people throw away reveals a great deal. Municipal solid waste (MSW), better known as "garbage" or "trash," is the waste generated by industries, businesses, institutions and residences. The figure below shows the growth in MSW in the United States over time, by type of material. By analyzing the contents of the waste stream, Waste Management, in partnership with customers, is working on solutions to reduce, divert and recycle more materials. How we do this is described in detail later in this report.

#### U.S. MUNICIPAL SOLID WASTE GENERATION, BY MATERIAL

Percentage of Total Generation Before Recycling



Source: U.S. Environmental Protection Agency

Most of Waste Management's operations focus on the recycling, recovery and ultimate disposal of municipal solid waste. MSW is only part (less than 10 percent) of the universe of wastes generated in the United States, and our services extend beyond the MSW stream. Our Industrial, Construction, Green Squad and Upstream service teams help business customers find sustainable ways to reduce and manage their commercial and industrial waste and transform it into usable resources.

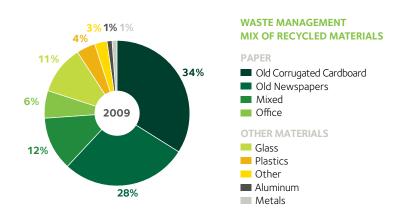
#### Where Does the Trash Go?

As the leading provider of comprehensive waste and environmental services in North America, Waste Management collects on average 100 million tons of waste per year. Our goal is to determine the best end use for the materials we are charged with handling. In partnership with our customers, we provide expertise on reducing and repurposing waste, and we are striving to expand our recycling programs to reclaim raw materials that can be introduced back into the supply chain. Our waste-to-energy facilities reduce the volume of trash by up to 90 percent, save valuable landfill space and generate electricity using waste as fuel. Where the disposal of waste is necessary, our landfills are a secure disposal alternative and are tapped as a source for renewable energy.

#### RECYCLING SERVICES

Waste Management is North America's largest recycler. In 2009 we managed more than 8.5 million tons of material that was recycled or reused. By the year 2020, our goal is to nearly triple the amount of recyclable materials we manage from our 2007 baseline – to more than 20 million tons a year.

The end of 2008 and much of 2009 proved challenging in pursuing this goal. Recycling commodity market prices declined along with the economy in the fourth quarter of 2008. Fortunately, commodity markets steadily recovered through 2009 and into 2010 such that those markets are at or near their pre-October 2008 levels. Moreover, we are working with our customers to revise contracts so that our customers share more in the benefits of strong commodity markets as well as more of the risk in weaker markets. Our commitment to recycling is stronger than ever, because we are convinced that our customers' desire to tap the value in waste will continue and increase in the future. Consequently, we continue to invest in new ways to recycle – including things we have never recycled before.



Waste Management has been recycling many materials, including paper, glass and metals, for decades. Recently, we have begun capturing more value from the waste stream by expanding our recycling capabilities to include new materials, and working with customers to increase overall recycling volumes.

## **PAPER**

WE RECYCLED **6 M TONS** OF PAPER PRODUCTS AND PACKAGING IN 2009



- Waste Management has been separating and recovering paper and cardboard for more than 20 years.
- A whopping 68% of everything we recycled was old newspapers, office paper and old corrugated cardboard.
- Recycling paper conserves landfill space and reduces raw materials and energy needs. Today's recycling facilities efficiently process paper alongside other recyclables, with minimal residual contamination.

## **ORGANICS**

WE PROCESSED **1.25 M TONS**OF ORGANIC WASTE IN 2010



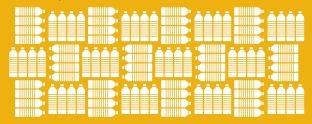
- Waste Management has 34 organics composting facilities.
- We are working with customers and partners to maximize the beneficial reuse of organics to develop products such as soil amendments, organic fertilizers, renewable energy, advanced biofuels and renewable chemicals.

# **PLASTICS**

WE RECYCLED NEARLY

175,000 TONS OF PLASTICS IN 2009

- Nearly **72,000 tons** of this were polyethylene terephthalate (PET), used for soft drink and water bottles, among other things.
- Waste Management recycled more than 2 billion PET bottles. If these were all 20 ounce bottles, the recovered plastics from these bottles could make 106 million square feet of recycled carpet.
- We are working with suppliers to find new uses for waste plastics.



# **E-WASTE**

**2 M TONS**/YEAR RECYCLED (U.S. EPA ESTIMATE)



- Fastest growing commodity within the municipal solid waste stream
- 5 million tons of e-waste, mostly consumer electronics, are stored in garages and basements.
- Waste Management operates
   214 eCycling collection depots.
- Our goal is to establish drop-off locations in all states where we operate to provide recycling for e-waste within 20 miles of 95% of the U.S. population.

## **GLASS**

WE RECYCLED OR REUSED NEARLY **550,000 TONS** OF GLASS IN 2009

- Our glass recycling saved as much energy as taking nearly 14,000 cars off the road.
- A glass container can go from a recycling bin to a store shelf in as little as 30 days. An estimated 80% of recovered glass containers are made into new glass bottles.
- Recycling just one glass bottle saves enough energy to light a 100-watt light bulb for four hours, power a computer for 30 minutes, or a television for 20 minutes.



## **METALS**

WE RECYCLED **402,000 TONS**OF FERROUS AND NON-FERROUS
METALS IN 2009

- Tin, steel and aluminum recovered through recycling can have second lives as cans, siding, storm window frames and other products.
- We are working with our commercial customers to make it easier to separate metals to increase metal recovery efficiency.



# CONSTRUCTION & DEMOLITION WASTE

- Recycling of construction and demolition (C&D)
  waste is growing. Waste Management helps
  contractors, builders and their customers achieve
  green building and sustainability goals by providing
  waste management and environmental solutions
  from the design phase through construction.
- As state incentives for C&D recycling increase and more LEED-certified facilities are built, we expect to add facilities like our California Wood Recycling unit at the Simi Valley Landfill and Recycling Center, where we sort materials for maximum recycling and provide documentation sufficient to satisfy LEED standards.

## COAL COMBUSTION RESIDUALS

- Finding a beneficial use for coal combustion residuals is increasingly valued.
- Our landfills **provide a controlled, contained environment** for the use of these residuals as daily cover and as a medium to stabilize liquids at landfills.
- We are developing monofills specifically tailored for disposal of coal combustion residuals, and we are actively evaluating new ways we can help our customers put this waste stream to beneficial use.



Increasingly, manufacturers – including many of our commercial and industrial customers – are incorporating the idea of recyclability into the design of consumer goods. Using recycled materials in the creation of new products has the potential to reduce the water and air impacts that come with making those new products from raw materials, and can help to cut greenhouse gas (GHG) emissions. When products are disposed at their end of use, it's ideal if we can extract the value of those discards to use as raw materials in new manufacturing production. Waste Management is actively working with our customers to help them design with recyclability in mind. Our knowledge of recycling processes makes us a valuable partner in this effort. (To learn more about our activities in these areas, see p.56 of this report.)



#### PARTNERING WITH TROPICANA TO INCREASE JUICE CARTON RECYCLING

We are always looking for new ways to divert materials from the municipal solid waste stream and recycle them instead. In November 2009 we partnered with Tropicana (a leading producer of fruit juices in the United States), Dean Foods and the Carton Council to launch a juice carton recycling initiative. Until recently, juice cartons, made of a combination of paper and plastic, could not be recycled. In a pilot program in Tampa, Florida, Waste Management began collecting these containers to be processed by our end-use partners through "hydropulping," which "blends" the cartons so the non-paper and paper layers separate. The recovered paper fibers can then be recycled themselves, into items such as tissue and paper towels.

#### **GROWTH OF ELECTRONIC WASTE SPARKS RECYCLING INNOVATION**

Consumer electronics – including TVs and other video equipment, phones, computers and peripherals – make up a small (under 2 percent) but growing part of the municipal solid waste stream. If disposed of in an environmentally negligent manner, the heavy metals present in this so-called "e-waste" can harm the environment. Though modern landfills are environmentally engineered and monitored to prevent the release of harmful materials, recycling is preferable because valuable raw materials can be recovered and used to make new products.

At Waste Management we have rapidly expanded our e-waste management capacity to help consumers recycle responsibly, to help governments meet their goals for e-waste recovery and to help electronics manufacturers take responsibility for their products at the end of their useful lives. (See responsibility for more information.) In the last two years, we have partnered with Sony Electronics and LG Electronics in the nation's first voluntary take-back electronics program. Through these partnerships, customers were encouraged to recycle their Sony and LG products (the latter including the LG, Zenith and Goldstar brands) for free at any one of our 214 drop-off locations around the country.

#### WASTE-BASED ENERGY PRODUCTION

As demand for renewable energy grows, so does the search for reliable, cost-effective methods of production. We are a pioneer in the extraction of energy from waste. We built the first commercially successful waste-to-energy plant three decades ago just outside of Boston, and we pioneered landfill-gas-to-energy technology 20 years ago.

In our specially engineered plants, we use garbage – ordinary household trash as well as business and industrial nonhazardous waste – to create energy. We do this in two ways: by recovering the energy in trash through "waste-to-energy" combustion, or WTE, and by harvesting landfill gas as a combustible fuel, known as "landfill-gas-to-energy," or LFGTE. Landfill gas, comprised of 50 to 60 percent methane or natural gas, is a naturally occurring byproduct of the disposal of waste in landfills.

In our modern world, garbage is plentiful and is considered by the Federal Energy Regulatory Commission as a renewable energy source – the same as wind or solar power.<sup>10</sup> Waste-based energy is highly valued by utilities because it is a base load resource available 90 percent of the time (in contrast to wind and solar, which ebb and flow).

In 2009, Waste Management facilities created enough energy from waste to power nearly 1.1 million homes. That's the equivalent of over 21.5 million barrels of oil or 5.6 million tons of coal. According to statistics compiled by the U.S. Department of Energy for 2009, our production of renewable energy from landfill gas was more than 60 percent of the U.S. total reported, and nearly 23 percent of the renewable energy from waste-to-energy projects. Combined, these Waste Management renewable fuels created an order of magnitude more renewable energy than that produced by the solar industry, and more than half the amount of energy produced by geothermal sources nationwide.

### **RENEWABLE ELECTRICITY PRODUCTION IN 2009 BY ENERGY SOURCE** (Measured in Megawatt Hours)



U.S. Energy Information Administration Independent Statistics and Analysis

While the concept of generating energy from waste is not new in the United States, it is more common in other regions. In Europe, approximately 430 waste-to-energy plants work in combination with recycling as an integrated waste management system, supplying enough electricity to power 7 million households. Waste Management is currently pursuing new waste-to-energy projects with our partners Shanks Group plc and Cory Environmental in the United Kingdom, and in early 2010 we formed a joint venture with Shanghai Chengtou Holding in China.

#### Waste to Energy

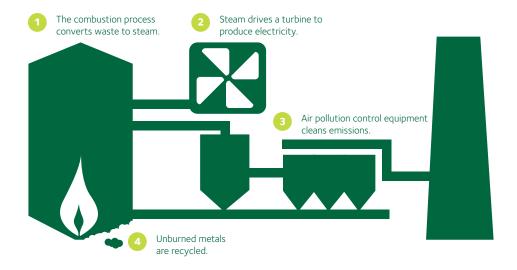
Using trash as fuel to generate clean, renewable power, our wholly owned Wheelabrator unit operated 16 waste-to-energy plants in 2009, with the capacity to process over 21,000 tons of waste per day. With the addition of a 17th plant in 2010, capacity is projected to be 749 megawatts, capable of powering 680,000 homes.

Waste-to-energy plants can also provide steam to municipal district heating systems or nearby industrial facilities. For example, our Baltimore plant supplies 40 percent of the steam for heating and cooling downtown buildings, including Ravens Stadium.

Modern waste-to-energy facilities use municipal solid waste as a fuel to generate electricity in almost the same way as traditional power plants produce energy. Waste-to-energy facilities convert trash to energy through controlled combustion, using advanced emissions-control equipment. Waste-to-energy plants reduce the volume of the waste up to 90 percent, saving valuable space in landfills, and provide a clean alternative to the use of fossil fuels. In fact, the U.S. Environmental Protection Agency (U.S. EPA) has stated that waste-to-energy plants produce electricity "with less environmental impact than almost any other source of electricity." (See 7 for more on Wheelabrator's other plants.)

#### THE SAFETY OF MODERN WASTE-TO-ENERGY PLANTS

In the United States, early experiences with older technologies for waste incineration caused concern due to potential environmental and human risks. The earliest plants emitted pollutants at levels that would not be tolerated today. In the 1990s, U.S. EPA regulations helped to reduce dioxin emissions from waste-to-energy facilities by more than 99 percent below 1990 levels and mercury emissions by over 90 percent.<sup>15</sup> Today's waste-to-energy facilities use advanced emissions-control equipment, including scrubbers to control acid gas, fabric filters to control particulates, selective non-catalytic reduction to control nitrogen oxides, and carbon injection to control mercury and organic emissions.<sup>16</sup> The U.S. EPA has noted the low environmental impacts.<sup>17</sup> All Waste Management waste-to-energy facilities meet both the U.S. EPA's standards and the strict European standard for control of dioxin. For more information, see www.wte.org.



Many of the communities we serve have implemented progressive waste prevention and recycling programs with ambitious goals for encouraging public participation and increasing recycling rates. Studies demonstrate that communities with waste-to-energy facilities have higher recycling rates on average than those that do not have such facilities. <sup>18</sup> For example, Wheelabrator's plant in Westchester, New York, began its operations in conjunction with a recycling program, and in 2009 Westchester achieved a record-breaking 61 percent of all solid waste recycled.

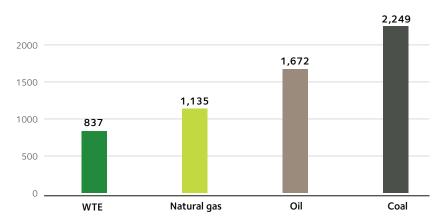
From 1975 through the end of 2009, Wheelabrator's waste-to-energy facilities processed 164 million tons of MSW into 86 billion kilowatts of clean, renewable electricity, avoiding the use of 293 million barrels of oil or 68 million tons of coal that would have been used to produce that amount of electricity.

WHEELABRATOR RENEWABLE ENERGY PRODUCTION, 2007 - 2009<sup>19</sup>

	2007	2008	2009
Kilowatt-hours sold <sup>20</sup>	4.58B	4.57B	4.47B
Number of households this could power <sup>21</sup>	699,000	633,000	632,000
Coal use this could avoid (tons)	3,470,000	3,425,000	3,431,000
Oil use this could avoid (barrels)	14,970,000	14,760,000	14,793,000

#### **AIR EMISSIONS**

(pounds CO<sub>2</sub> per MWh)



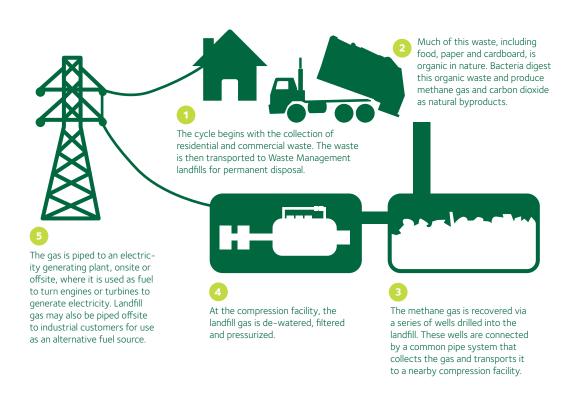
Every ton of waste processed at a WTE plant prevents one ton of carbon dioxide  $(CO_2)$  equivalents from entering the atmosphere.

#### Landfill Gas to Energy

Biodegrading waste in a landfill naturally emits methane, a greenhouse gas. At most landfills in the United States, the methane is simply burned off in flares. By capturing this methane gas and using it instead to produce power at LFGTE facilities, we reduce methane emissions and the environmental impact of their release into the air. We also create an alternative power source, offsetting the impacts of power that otherwise occur by burning fossil fuels.

As of September 2010, we had 124 projects that use landfill gas for fuel (up from 119 in 2009); these projects account for over one-quarter of all LFGTE sites in the United States. In 2007, we announced a goal to bring our total installed generating capacity to 700 megawatts of electricity. From 2007 through September 2010, we completed 33 new projects and expanded 10 projects, adding the equivalent of 180 megawatts and bringing our total installed capacity to almost 600 megawatts.

Our LFGTE capacity is important to our customers' attempts to meet their own sustainability goals. As part of a commitment to become carbon neutral, computer manufacturer Dell began powering its global headquarters with 100 percent green power, 40 percent of which is supplied by a nearby Waste Management landfill-gas-to-energy project. The Dell facility will round out its power needs from existing wind farms.



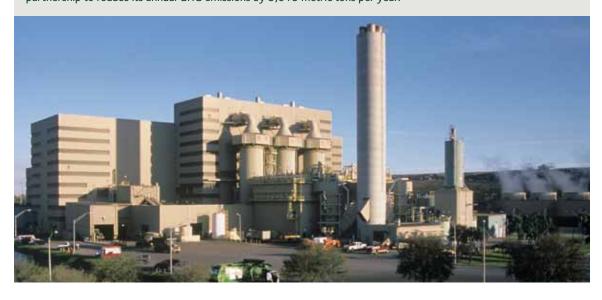
#### **WASTE MANAGEMENT LFGTE PRODUCTION, 2007 - 2009**

	2007	2008	2009
Megawatts installed at end of year	459	491	542
Kilowatt-hours sold	3.51B	3.76B	4.14B
Number of households this could power <sup>22</sup>	374,000	400,000	441,000
Coal use this could avoid (tons)	1,830,000	1,960,000	2,160,000
Oil use this could avoid (barrels)	5,730,000	6,130,000	6,770,000

#### FROM WASTE TO FUEL: LANDFILL GAS TO LIQUEFIED NATURAL GAS

The U.S. EPA's Methane Outreach Program gave us two awards in 2009: one to our Altamont Landfill in Livermore, California, for its efforts to convert landfill gas to natural gas, and the other to our cogeneration project at the University of New Hampshire. That project supplies the university's campus with energy generated from our Turnkey Landfill in Rochester, New Hampshire. See 7 for more on the Altamont Landfill effort.

In Seattle, we are helping the community attain carbon neutrality. Our liquefied natural gas/compressed natural gas (LNG/CNG) fueling station not only fuels our trucks, but also the city's taxis and police force. The city expects this partnership to reduce its annual GHG emissions by 3,015 metric tons per year.



#### MATERIALS MANAGEMENT

#### **Collection Services**

We provide solid waste collection services to more than 20 million customers across North America, from single, residential households to large companies with hundreds of locations. To handle this volume, we operate nearly 19,000 transfer and collection vehicles, the largest trucking fleet in the waste industry. Our fleet routes are designed to maximize collection efficiency and reduce fuel use. One way we achieve this is through compactor monitors that help our customers arrange for pickup service only when they need it, eliminating unnecessary trips for us and saving our customers money.<sup>23</sup>



Our new Waste Management Solar Compactor is advancing the efficiency and reducing the carbon footprint of waste collection in high-traffic areas and urban centers. The Waste Management Solar Compactor is self-powered from solar panels. Internal sensors trigger the compactor when the trash needs to be compacted, giving these 35-gallon receptacles five times the capacity of traditional trash barrels. When the compactor reaches capacity, a wireless system signals for pickup, cutting the need for vehicle service miles and fuel use for collection by up to 80 percent. The compactors also include receptacles for collecting plastic bottles, newspapers, glass and other recyclables, to make recycling easier.<sup>24</sup>

#### **Transfer Services**

With much of the waste we collect going to our own recycling centers and landfills, a supporting network of transfer stations provides an important link for efficient disposal. Strategically located transfer stations serve to consolidate, compact and load waste from collection vehicles into long-haul trailers, barge containers or rail cars for transport.

We are actively pursuing ways to increase the volume of materials coming through our transfer stations that can be recycled. We are conducting 37 pilot projects investigating how wet versus dry loads can be handled to recycle wastes customers had simply disposed.

#### **Disposal Services**

**Landfill Capacity** Waste Management operates the largest network of landfills in our industry and manages the disposal of approximately 100 million tons of waste each year. Our sites are operated in accordance with internal company safety and environmental policies intended to ensure that our landfills go beyond regulatory requirements to anticipate and deter conditions that may not be included in our regulatory obligations but nevertheless cause concern (e.g., odors, noise).

The first sanitary landfills built in the 1920s and 1930s replaced open trash dumps that posed significant threats to human and environmental health. In the decades that followed, landfill design evolved to include protective linings and other safety features to minimize the potential for leakage of untreated water and waste into the environment. A far cry from the first sanitary landfills, today's landfills are highly engineered containment systems where waste is placed for secure storage on properties that can provide valuable future use for commerce, conservation and recreation. To learn more about new advances in landfill technology, see www.thinkgreen.com/how-we-think-green, as well as our website.<sup>25</sup>

Medical Waste Handling Waste Management's focus on our customers' needs leads us to innovate ways to make managing their waste streams easier, safer and more cost-effective. In 2009, Waste Management Healthcare Solutions acquired the assets of PharmEcology Associates, including its PharmE® Waste Wizard and PharmE® Inventory Analysis. PharmEcology® worked with 219 hospitals in 2008 and 2009. These hospitals have an estimated 400,000 pounds of hazardous pharmaceutical waste and 2.6 million pounds of nonhazardous waste that need to be secured in lawful and protective disposal.<sup>26</sup>

Waste Management also brings safe disposal options to small medical practices and consumers by offering MedWaste Tracker, which enables the disposal of "sharps" (e.g., needles and syringes) and small quantities of medical waste in secure packages. These secure packages can be returned to a participating pharmacy or shipped by the U.S. Postal Service.<sup>27</sup>

Household Renovation Waste Management also helps make home improvement and renovation projects easier for homeowners and small businesses. Waste Management's "Bagster" – or "dumpster in a bag" – is a unique retail service offering. It combines a high-strength polypropylene bag with a flat pickup and disposal service fee, and is a convenient option for projects too small to require a larger dumpster. Customers can purchase the bag themselves on a routine shopping trip, eliminating the need for dumpster delivery. Waste Management can pick up 12 to 15 full bags before delivering them to a transfer station, eliminating 75 percent of truck mileage and associated emissions compared to the typical dumpster service.<sup>28</sup>







#### MANAGING A SUSTAINABLE ENTERPRISE

How we govern and manage our own business and footprint are issues that are vital to the communities in which we operate, the people we employ and the customers we serve. They're also vital for 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.

In this section of our report we discuss the governance and management systems that help us to: identify emerging opportunities to capture additional value from waste streams; deliver services to the highest environmental standards; provide opportunities to our more than 43,000 employees; actively address community needs; and play a constructive role in public policy development. We also take a look at how we apply sustainability principles to our own facilities and value chain.

#### INTEGRATING SUSTAINABILITY INTO OUR BUSINESS

Two important tools for integrating sustainability into our business have been our Strategic Business Framework and its evolution into a "scorecard" process. (See figure below.) Environmental excellence and compliance are hallmarks of sustainability and core elements of our management framework.<sup>29</sup> Through the strategy and scorecard processes, we align stakeholder perspectives and market opportunities into a plan and a set of targets that guide the entire organization over the course of a year. 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. See for more on our strategy and management processes.



#### CODE OF CONDUCT

Waste Management's Code of Conduct is entitled Focusing on Our Values. Compliance with our Code is central to our business success. Details on how we make the Code of Conduct integral to our operations appear on 10.



#### STAKEHOLDER ENGAGEMENT

We recognize that accountability is important, and we value open dialogue with the diverse stakeholders that have an interest in our business. Waste Management engages broadly and at every level with business peers and with multi-stakeholder groups to discuss all issues affecting our business and all ways in which our operations may affect others. Insights from these engagements help inform our strategic plans and business targets.

In the past two years, Waste Management has been part of more than 60 federal, nearly 100 state and more than 100 local organizations dedicated to bringing parties from very different perspectives to the table to solve environmental and social challenges. This extensive network helps us understand how we can provide value in terms of environmental stewardship, natural resource conservation and sustainability.

Over 90 percent of our MSW 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, issuance of newsletters and creation of dedicated facility-specific web pages. Customer feedback is actively solicited.<sup>30</sup> See 10 for more on our stakeholder engagement efforts.

#### WASTE MANAGEMENT A "MOST ETHICAL COMPANY"

For the third consecutive year, Waste Management in 2010 was named one of the world's most ethical companies by the Ethisphere Institute. Thirty-five industries were represented among 99 global companies listed; Waste Management was the only environmental services or waste industry company to be named. The Ethisphere Institute is a research-based organization that advances recognition of corporate social responsibility, business ethics, anti-corruption and sustainability best practices.



#### **ENVIRONMENTAL MANAGEMENT**

Safeguarding the environment is the foundation of our business. It's our promise to customers, our competitive advantage and our license to 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 require unwavering focus, expertise, comprehensive systems and internal checks and balances. We have evolved our systems over decades, with a focus on integrating environmental functions into the core of our business. The figure below shows how the key components of environmental management work at Waste Management. Because environmental stewardship is the core of our business, we post our environmental policy and information on our management team, practices and training on our website for public review.<sup>31</sup> (See also for more on the below figure and our environmental management processes.)

#### OVERVIEW OF WASTE MANAGEMENT'S ENVIRONMENTAL MANAGEMENT APPROACH

		EXPERTISE, GUIDAI	NCE AND CAPACITY		
Departments specializing in environmental protection					
Environmental Protection	Groundwater Protection	Environmental Engineering	Air/Landfill Gas Management	Laboratory Services Program	Environmental Information Services

	ENVIRONMENTAL MANAGEMENT SYSTEM	М
Compliance Management & Assurance	Environmental Self-Assessment Program	Environmental Training

PERFORMANCE TRA	CKING/EVALUATION
Environmental Dashboard	Independent Compliance Audit

#### SUSTAINABILITY AT OUR FACILITIES

We have implemented sustainability practices at our own facilities to improve operational efficiencies and achieve cost savings. Signaling our commitment to sustainable development, our company headquarters in Houston, Texas, is certified by the U.S. Green Building Council (USGBC) according to Leadership in Energy and Environmental Design (LEED) standards. LEED provides independent third-party verification that a building meets environmentally friendly design and performance standards, as established by the USGBC. We are beginning to incorporate LEED standards into new construction. See [21] for more.

#### **EL CAJON TRANSFER STATION: SUSTAINABILITY IN ACTION**

Our El Cajon transfer station in Southern California has long been a leader in implementing sustainability practices based on LEED design principles and serves as a model for future construction for Waste Management. El Cajon features landscaping with locally adapted plant materials, also known as "xeriscaping"; has a white roofing system that effectively reflects solar radiation to cool the building (achieving 20 - 40 percent reduction in air conditioning load); and employs sustainable purchasing in housekeeping items, bathroom fixtures and lighting control. In December 2009, El Cajon began tracking energy performance and consumption using a state-of-the-art metering system. In June 2009, the facility unveiled a modern Construction and Demolition (C&D) Processing and Recycling Center. Using the latest technology, the facility will recover and process up to 130,000 tons of commercial construction waste annually, as well as traditional recyclables. From sheet rock and concrete to wood and metal, the \$7 million, state-of-the-art sorting line separates C&D recyclable items from the waste stream collected at commercial building sites and home remodeling projects. The line also has high-tech "TiTech" optical sorting capabilities for the processing of dry recyclables such as aluminum cans, glass and newspapers from commercial trash loads. Since 2008, the station has been recognized repeatedly for its contribution to sustainability and the environment, receiving awards that include the California Department of Toxic Substances Control's Pollution Prevention (P2) Model Green Shop Award; inclusion in the U.S. EPA's Waste Wise Program; the California Integrated Waste Management Board's Waste Reduction Award Program: the American Lung Association's 2009 Clean Air Circle Award: the Industrial Environmental Association's 2008 and 2009 Sustainability Awards; the 2008 San Diego EarthWorks Award; and a 2009 Orange County Best Place to Work Award.

#### **Sustainability in Procurement and Operations**

Like most businesses, Waste Management has the opportunity to demonstrate its environmental and social commitment by making green purchases and supporting disadvantaged businesses. 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.

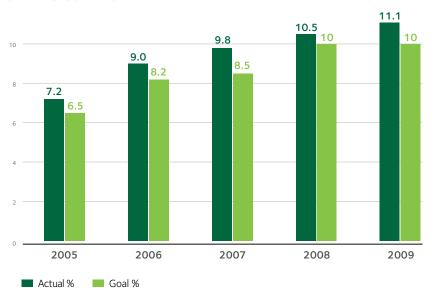
Waste Management's guidelines for suppliers set forth five criteria: product and technology leadership, service and support leadership, quality, delivery and lead-time performance, and total cost performance. For third-party waste service providers, Waste Management requires environmental assessments that ensure compliance with all applicable environment, health and safety requirements. (For a discussion of Waste Management's role in the global supply chain, see <a href="https://www.thinkgreen.com/sustainable-growth-goals">www.thinkgreen.com/sustainable-growth-goals</a>.)

For more on our sustainability efforts in procurement and operations, see 22.

#### SUPPLIER DIVERSITY

In 2009, Waste Management purchased more than \$300 million in products and services from diverse suppliers, including woman-owned, minority-owned and service-disabled, veteran-owned businesses. This volume represents approximately 11.1 percent of our total subcontracting budget for goods and services. This marks the fifth consecutive year the company has exceeded our corporate supplier diversity goals. To facilitate our use of diverse vendors and suppliers, Waste Management provides online registration for small businesses, including those owned by minorities, women and service-disabled veterans.<sup>32</sup>

## PERCENT OF SUBCONTRACTING BUDGET FOR GOODS AND SERVICES SPENT ON DIVERSE SUPPLIERS



Waste Management has been recognized for its sustainability governance and programs in a number of third-party assessments, as shown in the table below. See [23] for a list of additional awards and recognitions.

#### WASTE MANAGEMENT RECOGNITION

GOVERNANCE EVALUATOR	WASTE MANAGEMENT RANKING
GovernanceMetrics International	Highest rating 2009 and 2010 (one of only 42 companies out of 4,196 to receive a 10)
Ethisphere Institute: World's Most Ethical Companies 2010	Only environmental service company included
Dow Jones Sustainability Index	2006 through 2010
Newsweek Green Rankings	Highest-ranked waste and environmental service company in 2009 and 2010
Human Rights Campaign	Only waste and environmental service company included, score 100% in 2010
Sustainable Productivity Seal of Approval, SUPR Seal™	Top Business to Business Companies

#### **ENSURING ENVIRONMENTAL PERFORMANCE**

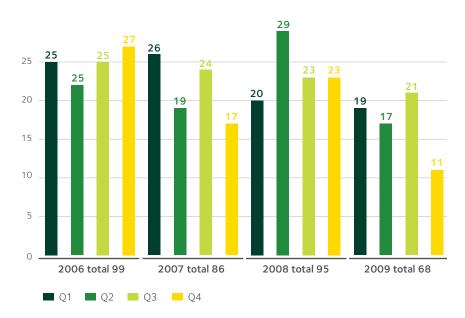
For Waste Management, safeguarding the environment means conducting our operations responsibly so that we maintain compliance with requirements; avoid spills and adverse impacts on land, groundwater and surface water; conserve water and energy; and reduce our greenhouse gas emissions. We also have opportunities to improve the environment, for example, by enhancing the value of our properties as wildlife habitat.

#### **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 saw in 2008 and 2009 improving trends in several key indicators. We continue to take every departure from regulations, no matter how small, very seriously.

The figure below charts our year-over-year performance in environmental notices of violation (NOVs)<sup>33</sup> received since 2006.

#### NOTICES OF VIOLATION, 2006 - 2009



Our internal environmental metrics have also shown an improving trend. (See [25] for detail.)

#### PROTECTING GROUNDWATER

Our modern MSW landfills are performing as designed and are protecting our natural resources, including groundwater at neighboring properties. **None of Waste Management's modern landfills have had to undertake corrective action to clean up groundwater under a neighboring property**.

Modern landfill standards, developed under the federal Resource Conservation and Recovery Act (RCRA), apply to our landfills across the country and mandate rigorous siting evaluation, site characterization and scientific engineering design. These standards, called the "RCRA Subtitle D" standards, require a comprehensive permitting process with public notification and comment, as well as extensive regulatory approvals. The current RCRA Subtitle D standards, revised and comprehensively upgraded from earlier requirements in 1981 and effective since 1993, have resulted in modern MSW landfills that are highly regulated and protective of the environment through mandatory use of engineered liners and covers, leachate (rainwater that accumulates in waste) collection and treatment systems, landfill gas collection and control systems, and monitoring and reporting. These systems interact to provide overlapping levels of protection as well as dependable monitoring of performance throughout the life of the landfill and after it closes.

Groundwater conditions surrounding our facilities are monitored on a routine basis by a comprehensive, regulated network of more than 6,000 groundwater monitoring wells to ensure protection of this valuable resource. More than 16 years of experience with federal requirements have proven the effectiveness of the national RCRA baseline standard in protecting human health and the environment.

We work with experts in the public and private solid waste sectors to understand what happens within landfills after they are closed. The resulting studies have documented the fact that conditions at MSW landfills improve in predictable patterns over time, with landfills steadily producing less gas as well as less and cleaner leachate.<sup>34</sup> In 2009, we commissioned Geosyntec, a consulting firm with extensive experience with the public and private environmental service sector, to provide an independent review of the data and literature assessing the performance of the modern landfill. This research is important in establishing the safety of modern landfills long after they close, and it demonstrates that landfill properties can be converted safely to a wide range of recreational, conservation, commercial and industrial uses.<sup>35</sup>

#### **CONSERVING WATER**

Over the next few decades, many scientists and policymakers expect freshwater supplies to come under increasing stress due to the demands of growing populations, threats to water quality and shifting water availability due to climate change. Because our services do not require extraction of the volumes of water used by many industrial businesses, we have not set corporate targets for water use reduction beyond those included at our LEED-certified sites. However, we recognize the importance of using water sparingly and protecting its quality. Many of our facilities are taking steps in this direction. Examples of innovative operational practices our facilities use to reduce and recycle potable water are included on

"Landfill properties can be converted safely to a wide range of recreational, conservation, commercial and industrial uses."

#### SAVING WATER AND ENERGY IN SPOKANE VALLEY

In June 2009, Waste Management celebrated the grand opening of a new, environmentally progressive 23,000-square-foot operations center in Spokane Valley, Washington. The facility incorporates a number of innovative design elements that make it worthy of its LEED Gold certification.

The building's design achieves water savings of 40 percent for the building, while irrigation is cut 72 percent by using native, drought-tolerant plants and an efficient irrigation system. The facility's automated truck wash incorporates a recycling system that dramatically reduces potable water use and discharge to the sewer. The stormwater management plan ensures that all water falling on the facility is captured and treated: water is directed to swales, which directly infiltrate into the ground or into a drywell centered in each swale to allow cleansed surface water to percolate back into the ground. The facility also achieves a 31 percent energy savings and uses a solar photovoltaic system to meet some of its energy needs.



#### PROTECTING AND ENHANCING WILDLIFE HABITATS

Waste Management owns properties that range from small administrative offices and transport service shops in urban, industrial areas to properties of several hundred acres in suburban and rural settings. At our larger properties, which are mostly open and closed landfills, a portion of the site is permitted for landfilling while substantial areas are set aside as a clean buffer zone. In these areas, we have the opportunity to manage the land to enhance its natural value, provide habitat for wildlife and offer educational and aesthetic amenities of value to the surrounding community.

Waste Management in 2007 set an ambitious goal to provide wildlife habitat on its properties: by 2020, to have at least 100 facilities certified by the Wildlife Habitat Council (WHC) and approximately 25,000 acres of land set aside for conservation and wildlife habitat. The WHC is a nonprofit, non-lobbying group of corporations, conservation organizations and individuals dedicated to restoring and enhancing wildlife habitat. The WHC's Corporate Wildlife Habitat Certification/International Accreditation recognizes commendable wildlife habitat management and environmental education programs at individual sites through the organization's Wildlife at Work program. The WHC also recognizes community-oriented educational efforts through its Corporate Lands for Learning program, which fosters a clear understanding of the interdependence of ecology, economics, social structures and political process.

By the end of 2009, Waste Management facilities across North America had provided more than 24,000 acres of protected land for wetlands and wildlife habitat, and by October 2010 we met our goal of 100 locations certified and 25,000 acres protected. Fourteen of our sites received Corporate Lands for Learning certification. We were recognized in 2006 as the first organizational recipient of the WHC's President's Award, and in 2008 became the first recipient of the WHC's William W. Howard C.E.O. Award, in recognition of our efforts in conservation, education and outreach. More information about our certified wildlife habitat sites and other uses of closed landfills is provided on and on our website.<sup>36</sup>



#### CREATING A HOME FOR THE NEXT GENERATION OF WILDLIFE

Our Grand Central Sanitary Landfill in Pen Argyl, Pennsylvania, was certified in 2007 by the WHC for its 200 acres dedicated to wildlife habitat.

One project at the site has been installing nesting boxes for Eastern Bluebirds, along with American Kestrels – colorful birds of prey that are the smallest of the North American falcons. Grand Central has three boxes positioned around the 537-acre property where kestrels have nested and raised about a dozen young. In the summer of 2009, employees of Grand Central worked with federal bird bander Paul Karner to gently capture and band four young kestrels. Banding helps researchers track and monitor birds – another contribution Grand Central is making to wildlife conservation.

#### **CONSERVING ENERGY**

We disclose our energy use as part of our Climate Care inventory. We are a major supplier of renewable energy and increasingly use wind, solar, waste heat and landfill gas to power our own facilities. Energy conservation is required at our LEED-certified sites and encouraged throughout the company. Current examples of conservation and renewable energy initiatives include use of:

- · Wind- and solar-driven landfill gas control devices
- Wind- and solar-driven leachate extraction pumps
- Waste heat to power other devices on site (in design)
- · Variable frequency drives to reduce electricity use
- Landfill gas produced on site for greenhouse and horticultural education centers nearby
- Energy-efficiency audits conducted at California-facilities, resulting in energy savings from heat pump and lighting retrofits

Our landfill properties are also being used to generate wind energy, which can be used by us and sold to others. The Altamont landfill in California has 40 acres of property set aside for turbines, roads and pads – 180 working turbines generating on average 11 megawatts. In Oregon, the Leaning Juniper Wind Generation facility produces more than 100 megawatts and serves more than 30,000 homes per year. The Columbia Ridge landfill in Oregon is home to 67 windmills generating more than 100 megawatts of electricity to Portland-based PacifiCorp.

#### **OPERATING A CLEAN AND EFFICIENT TRUCK FLEET**

With more than 32,000 collection and support vehicles on the road throughout North America, our trucks are a familiar sight. As they make their rounds, our trucks use fuel and generate greenhouse gases and other emissions. We're committed to reducing the environmental impacts of these vehicles: in 2007, we set a goal to spend up to \$500 million a year over a 10-year period to increase our fleet's fuel efficiency by 15 percent and reduce our fleet emissions by 15 percent by 2020.<sup>37</sup> Achieving this goal will yield significant benefits by that time, including savings of:

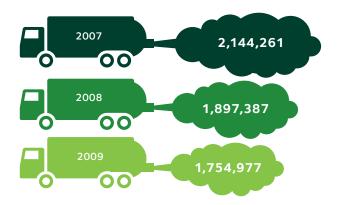
- · 350 million gallons of fuel,
- · about 3.5 million metric tons of CO<sub>2</sub> emissions, and
- \$1 billion in operational costs.

Our first step toward the goal was to establish a baseline by estimating the 2007 emissions level for our entire fleet, including collection, support and heavy equipment. This inventory was accomplished in December 2009. This information will allow us to track our progress over time toward our 2020 goal. Key to developing this inventory has been our work with the U.S. EPA's SmartWay Transport Partnership and NONROAD groups.<sup>38</sup> We were awarded SmartWay Partnership status in 2010. Waste Management is the first company with a vocational fleet (e.g., construction, heavy hauling, mining, logging or refuse) to become a SmartWay Partner.

WASTE MANAGEMENT FLEET SNAPSHOT, 2009		
Number of vehicles	32,000	
Fleet maintenance investment	\$600 million	
Mobile source CO <sub>2</sub> emissions	1,754,977 tons	
Fuel efficiency	2 million driver hours reduced; 853 natural gas vehicles; 2,200 vehicles using biofuels	
Average yearly driver training	80 hours (40 classroom, 40 on road)	

#### **OUR MOBILE SOURCE EMISSIONS**

Tons CO<sub>2</sub>e



We are implementing a range of technologies in the short and long terms to reduce emissions from our fleet by routing trucks efficiently, controlling emissions, using alternative fuels, optimizing truck design and converting our vehicles to run on methane generated at our landfills. Some of these technologies are discussed here; see [26] for more.

**Alternative Fuels and Hybrids:** Waste Management has the world's largest fleet of heavy-duty natural gas refuse and recycling trucks. In 2009, we purchased 125 natural gas vehicles, raising our natural-gas-fueled fleet size to 853. Our natural gas fleet includes 351 compressed natural gas and 491 liquefied natural gas vehicles. This represents about 3.5 percent of our collection vehicles. We also have over 2,200 vehicles that run on various blends of biodiesel. By the end of 2010, we plan to have purchased an additional 150 CNG-powered vehicles. Using natural gas as a fuel reduces emissions, including particulate matter, nitrogen oxides and greenhouse gases, and also reduces our dependence on imported fuels.

#### COMPRESSED NATURAL GAS HELPS KEEP SEATTLE CLEAN AND GREEN

In 2009, we began to convert our entire Seattle fleet to natural gas. Within five years, all 180 collection trucks serving Seattle will be fueled by CNG. We are investing \$29 million in the new vehicles and an additional \$7.5 million to build the fueling station.

An independent environmental review produced by Gladstein, Neandross & Associates, an environmental consulting firm, determined that Waste Management's equipment upgrade will reduce smog-causing nitrogen oxides by 97 percent, toxic diesel particulate matter by 94 percent and greenhouse gases by 20 percent over current levels. Switching to advanced CNG vehicle operations will provide significant environmental, public health and community benefits to the region. The collection trucks will also reduce noise pollution.

Waste Management has partnered with Peterbilt and Eaton to field test the industry's first parallel hydraulic hybrid waste collection truck to be deployed as a collection vehicle. Significant weight increase due to current hybrid technology remains a challenge. Due to this weight increase, waste collection vehicles haul less refuse per truck, and fuel consumption and emissions per ton of refuse rise. We continue to work with hybrid technology manufacturers to overcome this challenge. When we set our fleet efficiency goal in 2007, we realized that we would have to rely on our manufacturers to help us develop and deploy the emissions-reducing trucks of the future. Three years later, we have confirmed that we cannot achieve this goal by ourselves, and much remains to be done.

**Producing Our Own Fuel:** Running trash trucks on trash has a compelling logic. In 2009, we began producing LNG from the bio-methane in landfill gas and using it to power our collection vehicles. In 2010 we expect to produce 2 million gallons of bio-methane LNG and to purchase an additional 100 LNG-powered vehicles. Please see p.31 for further information.

**Promoting Progressive Policies:** Complementing our own internal efforts to improve our fleet, we are working collaboratively with others to promote progress across all sectors. This includes supporting increased fuel efficiency for heavy-duty trucks like ours. Through our participation in Securing America's Future Energy, a nonpartisan organization that seeks to reduce America's dependency on oil, we supported provisions that became law in the Energy Independence and Security Act of 2007. This legislation will require a study of ways to increase the efficiency of work trucks and promulgate regulations that will increase their fuel efficiency. We also supported provisions in the Senate's climate change bill of 2008 that would have provided rebates to purchasers of heavy-duty hybrid trucks that use less fuel than conventional trucks.

#### CONTAINING HAZARDOUS SUBSTANCES AND REDUCING EMISSIONS

Waste Management owns seven hazardous waste treatment and disposal facilities subject to the U.S. EPA's Toxics Release Inventory (TRI), a data repository compiled to inform the public about the presence of chemicals in their communities.<sup>39</sup> TRI compiles information on what are termed "releases" of over 650 chemicals. These releases take two very different forms:

- **Actual releases:** releases of chemicals into the ambient environment, as specifically authorized by permit or regulation, from designated industrial sources.
- **Containment:** disposal of chemicals at hazardous waste landfills and underground injection wells, as specifically authorized by permit. This requires permanent isolation in an engineered disposal unit.

Waste Management's emissions are reported annually to the U.S. EPA and are provided on [27]. These data reveal a 41 percent decline in air releases over the nine years TRI has been applicable to our facilities, despite the addition of three nonhazardous waste handling units adjacent to hazardous waste landfills that became newly subject to reporting in facility-wide totals in 2007 and 2008. Our water releases declined 85 percent over the nine-year period.

With regard to the hazardous wastes contained within our landfills, annual figures have increased and declined intermittently over the years, but reflect a significant downward trend. Fluctuations reflect relative activity in customer remediation projects and brownfield cleanups, as well as relative productivity in some heavy industrial sectors. Declines also reflect positive initiatives to avoid generating hazardous waste in the first place — initiatives for which Waste Management is a leading service provider.

#### **GREENHOUSE GAS EMISSIONS**

Climate change is a global issue of growing importance to our company and our customers. We recognize our obligation as an industry leader and environmental steward to identify our company's carbon footprint, voluntarily reduce our greenhouse gas emissions and help our customers do the same.

#### Our Greenhouse Gas Footprint - An Overview

In early 2010, we completed the first comprehensive assessment of our GHG "footprint," which showed that:

- The vast majority (91 percent) of our 23.5 million metric tons of CO<sub>2</sub> equivalent (CO<sub>2</sub>e) GHG emissions are direct emissions related to our business processes, including landfilling and power generation.
- Next most important (7 percent) is our use of fuel for our trucks and other transportation.
- Indirect emissions from our use of electricity accounts for the remaining 2 percent of our GHG emissions.

We also analyzed how our activities contribute to avoiding GHG emissions.  $^{40}$  Most of the 26.8 million metric tons  $\mathrm{CO_2}\mathrm{e}$  of annual avoided emissions is attributable to permanent storage of carbon-containing waste in our landfills.  $^{41}$  Next most important is the energy savings associated with the reuse and recycling of materials, followed by emissions avoided due to the renewable energy we generate and the waste-derived fuels we produce and sell. See [28] for a closer look at our GHG footprint and a description of the methodology we use.

WASTE MANAGEMENT'S GREENHOUSE GAS FOOTPRINT	2009
Greenhouse Gas Emissions (metric tons carbon dioxide equivalents)	
Process	21,552,559
Transportation	1,754,977
Energy Use	357,141
Potential Avoided Emissions from	
Renewable Energy Generation	3,504,234
Waste-Derived Fuels Produced and Sold	23,976
Reuse and Recycling of Materials	5,621,788
Carbon Permanently Sequestered in Landfills	17,703,584

#### WASTE INDUSTRY GREENHOUSE GAS FOOTPRINT

Overall, the waste sector is a very small contributor to total U.S. GHG emissions – less than 3 percent. From 1990 to 2008, net methane emissions from landfills decreased by 15 percent (23.0 Tg  $\rm CO_2$  equivalent), with small increases occurring in interim years. This downward trend in overall emissions is the result of increases in the amount of landfill gas collected and combusted, which has more than offset the additional methane emissions resulting from an increase in the amount of municipal solid waste landfilled over the past 19 years.

Source: U.S. EPA, Inventory of U.S. Greenhouse Gas Emissions and Sinks, 1990-2008, EPA 430-R-10-006 (Washington, DC: U.S. EPA, April 15, 2010).

### We are working to reduce the use of fossil fuels in our facilities and our fleet,

**improve energy efficiency** and **use renewable energy sources**, including those produced by our own operations. Three of our four sustainability goals help to drive progress toward GHG emission reductions for our company and our customers: **doubling our renewable energy generation; tripling the amount of recyclable materials we manage; and challenging our truck suppliers to** 

These goals build on a binding commitment we made as a founding member of the Chicago Climate Exchange (CCX) to reduce GHG emissions at least 6 percent below our baseline of average annual emissions from 1998 to 2001 by 2010.<sup>42</sup> We have reported annually to the CCX and are on track to meet our GHG reduction obligation by the end of 2010. In addition, we have voluntarily measured and reported GHG emissions from our California-based operations to the California Climate Action Registry (CCAR) for the reporting years 2006 through 2008. Waste Management was the first solid waste company to join the CCAR and was designated a "Climate Action Leader" by the CCAR each year of participation.<sup>43</sup>

#### Risks and Opportunities for Waste Management Related to Climate Change

help us cut our fleet emissions by 15 percent.

Climate change presents both risks and opportunities for Waste Management:

- Regulatory Risks: Emerging GHG policies at the state and federal levels will likely
  affect our operations; however, it is uncertain at this time what specific impacts
  possible future regulations may have on our operations. 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.
- **Opportunities:** Emerging renewable energy and GHG cap-and-trade policies may provide opportunities for Waste Management to develop more landfill methane offset projects and waste-based energy projects. Similarly, emerging low-carbon fuel standards and other incentives may allow us to realize benefits from our continuing investment in innovative alternative fuel technology development, including converting landfill gas to liquefied natural gas and biodiesel. In addition, a large number of states are developing or considering programs to promote waste recycling as a GHG reduction measure. These opportunities represent some of the exciting new directions for our company discussed in Book 3. See also the discussion of our participation in public policy discussions on [29].

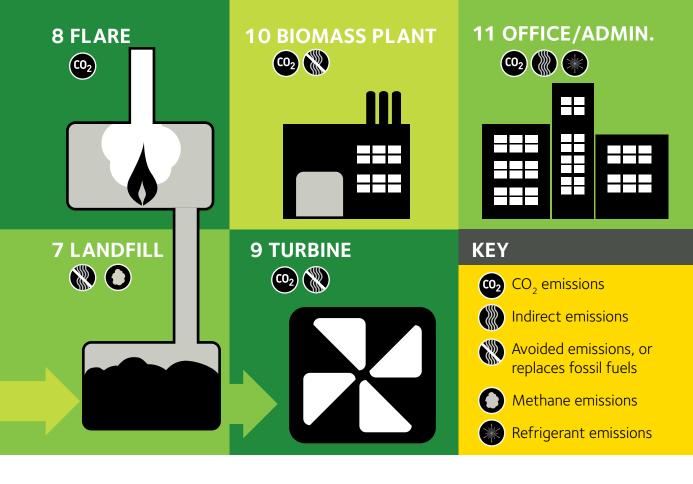


#### Here's a guided tour of our GHG footprint

- **1** Many of the **goods** people buy, use and eventually discard contain carbon. When these items are burned or decompose, they release CO<sub>2</sub> and/or methane, two important greenhouse gases.
- **2 Waste** typically includes a mix of biogenic<sup>44</sup> carbon-containing materials (e.g., paper, wood, food waste), manmade carbon-containing materials (e.g., plastics, tires, synthetic textiles) and non-carbon-containing materials (e.g., metal, glass, stone).

**Biogenic** CO<sub>2</sub> emissions are viewed as having a neutral greenhouse gas impact because they result from

- biological processes in which emissions from the decomposition or burning of waste are balanced by the uptake of carbon dioxide from living and growing plant materials. Burning manmade (anthropogenic) carboncontaining materials like plastics or synthetic textiles releases carbon that was stored eons ago in fossil fuel deposits. Likewise, burning fossil fuels releases carbon dioxide that is not balanced by the biosphere and is thought to be the primary source of the greenhouse gas effect. Our carbon footprint, therefore, reports only the manmade or anthropogenic GHG emissions from our operations.
- 3 Our collection trucks emit CO<sub>2</sub> from the combustion of diesel and other fossil fuels.
- 4 Our recycling facilities process wastes to recover resources that can be used to make new goods. These facilities have direct CO<sub>2</sub> emissions from the use of fuel onsite and indirect GHG emissions due to their use of electricity. Recycling paper, plastics, aluminum, glass and other materials can avoid GHG emissions by decreasing the amount of energy needed to convert raw materials into usable commodities, conserving landfill capacity, preventing the mining and initial processing of petroleum products, metal ores and sand, and preventing the harvesting of trees, thereby allowing forests to continue to sequester (i.e., store) carbon dioxide from the atmosphere.



- **5 Transfer facilities** process wastes and direct them to wasteto-energy plants or landfills. These facilities have direct CO<sub>2</sub> emissions from the use of fuel onsite and indirect GHG emissions due to their use of electricity.
- **6** Waste Management's 16 wasteto-energy plants<sup>45</sup> emit about
  65 percent biogenic CO<sub>2</sub> and 35
  percent manmade CO<sub>2</sub> as carboncontaining waste is burned to
  produce renewable electricity.
  These plants also avoid CO<sub>2</sub> emissions that would result from burning
  fossil fuels to generate the same
  amount of electricity. Metals are
  recovered at waste-to-energy
  plants for recycling, thereby
  avoiding additional GHG emissions
  needed to produce metal from ore.
- **7** Some of the carbon-containing waste in **landfills** decomposes, creating GHGs mostly methane and CO<sub>2</sub>. Other waste remains intact, sequestering the carbon indefinitely. Modern landfills prevent most of the methane from escaping through use of gas collection and landfill cover management systems. We are working with the U.S. EPA and the California Energy Commission to better understand and quantify methane emissions from landfills (see 28).
- **8** Collected landfill gas may be **flared** (burned), which converts methane into biogenic CO<sub>2</sub>.

- **9** 119 of our landfills use landfill gas as fuel for **landfill-gas-to-energy** plants, releasing biogenic CO<sub>2</sub> but preventing the release of methane and avoiding CO<sub>2</sub> emissions that result from burning fossil fuels to **generate electricity**.
- 10 Waste Management operates one power plant fueled by waste (not purpose-harvested) biomass. This plant emits biogenic CO<sub>2</sub> and also avoids the CO<sub>2</sub> emissions that would result if fossil fuels were used to generate the same amount of electricity.
- 11 GHG emissions associated with Waste Management's offices and similar facilities include CO<sub>2</sub> from onsite energy use, indirect emissions from electricity use and emissions of greenhouse gases associated with refrigeration.<sup>47</sup>

#### CREATING A GOOD PLACE TO WORK

Our employees are critical to the success of our business, and we work hard to ensure that we provide them with the tools they need to succeed in their careers. One of our strategic business goals is to be a "best place to work." To achieve that, we seek to develop an engaged workforce and a positive work environment. Engaged employees work more safely, are more productive and stay in their jobs longer.

We strive to exhibit the highest ethical standards – as a company and as individuals. We aim to be defined by a culture that reflects our core values. (See 29.) We train all of our employees in our company Code of Conduct, and we expect them to comply.

For the last three years, we have been named to the Ethisphere Institute's list of the "World's Most Ethical Companies." For 2010, we were the only company listed in the environmental services category.

#### **DIVERSITY AND INCLUSION**

We believe it is important to maintain a vibrant and diverse workforce, reflecting the diversity of the customers and communities we serve. We are an equal opportunity employer, committed to an environment free from discrimination. We provide equal employment for all persons by placing the most qualified person in each job without regard to race, color, sex, sexual orientation, gender identity, religion, marital status, age, national origin, disability, veteran status, citizenship status or other protected group status as defined by applicable federal, state or local laws.

About 40 percent of our employees are minorities, and 17 percent are women. Twenty-two percent of our executive leadership team is minority or female. Among company officers and managers, about 17 percent are minority and 16 percent are women. Our Board of Directors is 25 percent minority and 12.5 percent female. (See of additional diversity data.)

#### **TOTAL EMPLOYEES**

One icon = 500 employees (over 43,000 total; 40,377 U.S. employees; 2,642 Canadian employees)



82% HOURLY EMPLOYEES

18% SALARIED EMPLOYEES

#### WORKFORCE SAFETY

Historically, trash collection, processing and disposal have ranked among the most dangerous occupations in North America. Our employees who collect trash spend much of their workday in traffic and lift heavy items that can lead to injuries. Residents depend upon us to pick up and safely recycle or dispose of their wastes; but when they get in their cars, they often fail to notice our workers performing these essential tasks. Employees at our facilities must be constantly alert to avoid serious injury as they work with sophisticated heavy equipment. Our worker safety efforts focus on developing best practices to help workers avoid vehicle accidents and to safely operate heavy equipment.

Overall injury rates in our industry have improved substantially in recent years — and Waste Management's performance in this area has ranked among the best. Nonetheless, we are constantly looking for ways to improve the safety of our employees and enhance worker safety in our industry overall. We work actively with our trade association, the National Solid Wastes Management Association, in its efforts to educate the general public on how they can make day-to-day sanitary service operations safer for everyone.<sup>48</sup>

#### **Continuous Improvement**

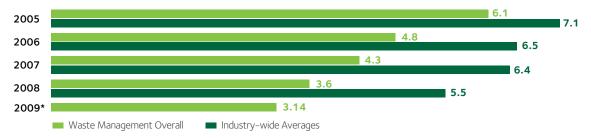
About a decade ago, we made a commitment to overhaul our safety culture and to put processes and systems in place that would make every site and each individual responsible for safe behaviors. This commitment led to the launch of an internal safety philosophy that we call "Mission to Zero™" or M2Z™. The core of the M2Z™ philosophy is zero tolerance for unsafe behaviors by employees and managers, with a goal of zero accidents or injuries. All operational employees benefit from the program's safety training, rulebooks, fleet processes and standard practices. Over the years, the M2Z™ approach has resulted in programs that have improved safety performance, including worker injury and vehicle collision prevention.

M2Z™ seeks to change behaviors and develop company leaders who can train and lead others. The program, which includes among the most far-reaching and comprehensive worker safety plans in our industry, involves classroom instruction, route observation, monitoring of safety data and driver training. Since its adoption, we have seen significant improvements, including:

- A decrease of 85 percent in our Total Recordable Injury Rate (TRIR) i.e., non-fatal illness and injuries – between 2000 and 2009. In 2009, our TRIR rate of 3.14 put us well below the 2008 industry average of 5.5, according to the most recent government statistics.
- An improvement of 60 percent in our Vehicle Accident Recordable Rate (VARR) between 2005 and 2009.

See [30] for more on our workplace safety initiatives.

#### **TOTAL RECORDABLE INJURY RATE<sup>49</sup>**



Source: Bureau of Labor Statistics: Waste Management and Remediation Services for non-fatal injuries and illnesses

#### Vehicle Safety and Driver Training

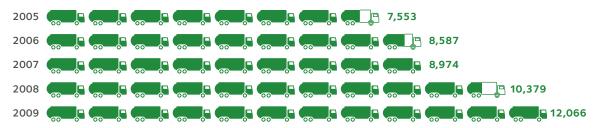
We have been demonstrating our commitment to employee safety by investing approximately \$500 million on the maintenance of collection vehicles and \$100 million on maintenance and repairs for heavy equipment each year. We believe our investment has contributed to our 60 percent decline in reported vehicle accidents between 2005 and 2009. Our vehicles are serviced monthly and inspected twice annually to ensure proper operation.

Our extensive on-the-job training and routine evaluation programs for our drivers go well above U.S. Department of Transportation (DOT) requirements. Newly hired drivers go through 80 hours of training: 40 in the classroom and 40 on the job with an experienced driver. All drivers participate in safety briefings each morning before routes begin.

As part of the new-hire training process, drivers receive an on-the-job evaluation on days 30, 60 and 75. We follow federal regulations for the maximum number of hours spent behind the wheel. In addition, all Waste Management drivers must pass a general physical and meet DOT physical requirements.

In 2010, we began an initiative to identify and address drivers at risk for Obstructive Sleep Apnea (OSA). Waste Management provides onsite driver health screenings to detect factors that may lead to cardiometabolic-related diseases such as heart disease, diabetes and kidney disease. Onsite health coaches identify individuals potentially at risk and direct them to our preferred vendor for an OSA evaluation, treatment and compliance program.

#### **VEHICLE ACCIDENT RECORDABLE RATE<sup>50</sup> (VARR)**



Miles driven without accident; 60% improvement since 2005

<sup>\*</sup>Government data on the industry-wide average for 2009 has not yet been released.

#### Collaborating with OSHA

Waste Management is one of just eight companies – and the only member of the waste industry – asked by the U.S. Occupational Safety and Health Administration (OSHA) to participate in its Voluntary Protection Program (VPP) Corporate Pilot, an invitation-only program designed to test new processes for companies that have already demonstrated a strong commitment to employee safety and health. All 21 Waste Management waste-to-energy plants are VPP certified. In August 2007, Waste Management's Carlsbad, California, facility became the first waste and recycling service hauling company in the nation to achieve VPP Star designation. In 2010, the Waste Management transfer station in Irvine, California, became the first of its kind to receive California OSHA's "Star Certification."

#### LEARNING PROGRAMS

Waste Management conducts formal skill mapping and development processes for 100 percent of top and mid-level management and 90 percent of first-line managers and supervisors. In 2009, more than 32,400 employees recorded nearly 310,000 hours of training; our training budget was \$12 million.



Since we launched Waste Management University in April 2009, more than 32,000 employees have taken at least one online training class or instructor-led course. In addition to our own courses, we offer up to \$4,000 of tuition reimbursement each year to Waste Management employees for approved courses and degrees through our Learning and Educational Assistance Program.

In 2009, Waste Management University was selected as runner-up for a CUBIC (Corporate University Best-In-Class) Award for "Best New Corporate University." The award, which recognizes corporate universities, is granted by a panel of leading corporate university experts who base their decisions on alignment of learning to business strategy and enculturation of learning throughout the organization.



#### **EMPLOYEE ENGAGEMENT**

We encourage communication between company leaders and employees at all levels. Our senior leaders operate with an open door (and open email) policy. Each quarter, our senior leadership team hosts a town-hall-style meeting at our Houston headquarters. Employees unable to attend are invited to submit questions by email, and direct responses are sent in reply. Responses are often included in our company's weekly newspaper.

Our top officers and group senior vice presidents also host "Trash Talk" meetings when they travel to local Waste Management sites. In these smaller settings, employees can pose questions directly to senior management. Our managers, meanwhile, gain the benefit of hearing ideas and recommendations directly from field employees.

One hundred percent of our employees participate in some form of coaching, feedback, annual performance review and development plan programs. We believe environmental excellence and compliance are the hallmarks of sustainability and reflect Waste Management's core values, and both are part of the performance review structure for all employees, according to their roles and responsibilities.

We believe that engagement with employees helps keep our employee turnover rate relatively low. In 2009, our voluntary employee turnover was 6.84 percent, compared to 12.5 percent for all industries overall.

#### **Employee Surveys**

We give our employees an opportunity to tell us about their work experiences through our annual Employee Survey, conducted by the Gallup Organization. In 2009, a record-setting 87 percent of our employees completed the survey – four percent more than in 2008. The survey plays an important role in our goal of becoming a "best place to work" and in measuring our employees' opinions about their workplace.

We assess engagement based on the answers to 21 questions about how employees feel about their jobs and their work environment. Engagement is higher when employees feel they:

- · Have the tools they need to do their jobs
- Understand what supervisors and managers expect of them
- · Are recognized when they do a good job
- Are generally satisfied with their jobs, managers and workplace

Our overall company engagement score improved over 2008. Based on the latest data, we believe we have three "engaged" employees for every one actively "disengaged" employee. By contrast, the U.S. working population overall has 1.5 engaged employees for every one actively disengaged employee.

"One hundred percent of our employees participate in some form of coaching, feedback, annual performance review and development plan programs."

#### **COLLECTIVE BARGAINING**

We recognize and strictly adhere to the principle that our employees have the 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.

Through our various subsidiaries, our company successfully negotiated 145 collective bargaining agreements with unions during the three-year period ending in December 2009. The agreements cover about 10,000 employees – or about one-quarter of our workforce – in approximately 234 facilities.

We work with our unions to achieve mutually beneficial objectives. One good example took place at three facilities in Alameda County, California, which collectively had one of the worst safety records of any Waste Management facility in the United States. Local management and officers from Teamsters Local 70 worked together to implement new safety programs, and the results have been remarkable. The number of lost days from new worker compensation claims decreased from 1,169 in the first quarter of 2009 to 20 in the fourth quarter – a 98 percent improvement.

A quarter of our workforce is unionized, and we do not believe any of our operations are at risk with regard to possible infringement of the right to freedom of association. Nor do we believe our workforce is at risk for incidents of child or forced/compulsory labor.

#### **Our Workplace Recognitions**

- Named to the Ethisphere Institute's list of "World's Most Ethical Companies" for 2010
- Recognized by G.I. Jobs magazine as a "Top 100 Most Military Friendly Employer" for 2010
- Received the Better Business Bureau of Upstate New York's 2009 Torch Award (for Waste Management of New York)
- Named a Human Rights Campaign "bronze partner," with a 100% rating in 2010

See [31] for information on employee benefits, talent acquisition and other workplace-related issues.



#### **PARTNERING WITH COMMUNITIES**

We are a large company with facilities that span the North American continent. But when it comes to delivering our services, we're a local business. We provide services to more than 20 million customers, but we do it one city, one neighborhood, one business, one home at a time. This makes us an integral part of every community in which we operate.

We give through corporate donations, employee volunteerism and in-kind services. More important, we look for ways we can partner with our communities every day of the year to make them better places to live – by, for example, turning closed landfills into parks, or leading cleanup efforts.

We recognize that healthy, thriving communities depend on involved citizens, organizations and corporate partners. We lend our support and services to causes that promote civic pride, foster economic development and boost community revitalization. We value national partnerships and support numerous problem-solving initiatives at the local level to protect the environment, support environmental education, foster community restoration and beautification, and meet other community needs.

#### COMMUNITY ENGAGEMENT

These days, excellence in operations and environmental protection are no longer sufficient to drive business success. Today's customers and the communities in which we operate want to know that the waste they generate is handled in the smartest ways possible and that the company handling their waste is a good neighbor and a steward of the environment. Our community relations efforts are structured to meet these expectations. Our field personnel, who typically have an operational background, work with corporate, regional and market area teams to ensure they are employing best practices and maximizing the communication of useful information to those who live and work in our communities. In each of our major markets, Waste Management has at least one employee who is dedicated to working and communicating with members of the local community. These employees report to our senior vice president for government affairs and communications. In addition, each major facility and major municipal contract has a formal community engagement plan to facilitate ongoing dialogue with community members, particularly on issues of concern.

At the corporate level, our community relations staff provides guidance, tools and training to our employees in the field who interact with their communities and who respond to community concerns. Increasingly, we're using social media to provide real-time information about our operations, enhance community conversations and engage more directly with local residents and community organizations to address their questions. Links to our Facebook and Twitter platforms are provided at www.wm.com/index.jsp.



Most community concerns reflect the need to understand our operations more thoroughly – to get a sense of how we're monitoring groundwater quality, for example, or how our environmental management system is implemented. Concerns sometimes arise with odor or dust around Waste Management facilities – concerns we track and have a formal system to resolve. (See [20] for more information on how we do this.) Communities also want educational programs – tours, speakers and partnership opportunities – and we continually work to provide the information community members seek. Many of our landfills have their own websites to help keep their communities current on operations and environmental topics of interest. We will also announce the availability of this report on Facebook, Twitter and wm.com, and will request feedback from the communities we serve.

We have a dedicated budget for charitable contributions, multidisciplinary review of applications for funding, and formal standards for contributions to ensure that all comply with applicable regulations. This includes review to ensure compliance with our internal Code of Conduct, as well as conformance with our business goals of environmental stewardship and partnering with our local communities. <sup>51</sup> Our local operations make decisions about which community organizations to support, drawing on the expertise of our community relations staff.

See [32] for more on our charitable contributions.

#### WASTE MANAGEMENT CHARITABLE CONTRIBUTIONS, 2007 - 2009

YEAR	IN-KIND'	CORPORATE GIVING	IN-KIND/CORPORATE GIVING TOTALS	CHARITABLE FOUNDATION"	GRAND TOTALS
2007	\$1,618,938	\$7,944,872	\$9,563,810	\$1,715,965	\$11,279,775
2008	\$3,192,706	\$9,270,834	\$12,463,540	\$2,022,298	\$14,485,838
2009	\$3,414,401	\$8,772,223	\$12,186,625	\$675,040	\$12,861,665

<sup>\*</sup>Numbers for the in-kind component of charitable giving are not centrally coded because Waste Management does not claim a tax deduction for these services. As a result, there may be some variability in definition for the in-kind component from area to area and year to year.

<sup>\*\*</sup>In 2010, we phased out our separate charitable foundation to combine our giving under the corporate office.



#### **Volunteering Our Services**

The Waste Management Community Partners Volunteer Program is an employee benefit that provides paid time off for our employees to get involved with a nonprofit of their choice. All full-time employees can take up to eight hours of paid time off each year to volunteer at an eligible not-for-profit. The program formally kicked off in August 2009 after a two-year pilot. In 2008, employees from 10 pilot locations donated more than 28,500 hours. In addition, employees who volunteer more than 40 hours per year of their own time are eligible to apply for Waste Management to make a \$250 contribution to that nonprofit.

#### Spreading the Word

We believe we can play an important role in helping to educate the public about more sustainable practices. So in 2007, we launched **www.greenopolis.com**, an interactive social network dedicated to sustainability where individuals learn and teach each other how to be more environmentally responsible in their daily lives. The site promotes issues such as conservation, recycling and renewable energy awareness. People earn points by either using Greenopolis recycling kiosks (see p.62) or simply by participating in the network. Greenopolis.com has seen over 1 million visitors to date, and Greenopolis-related recycling kiosks have collected over 1 million items. We also offer educational tools, including classroom tips for teachers, on **www.thinkgreen.com**.

#### **Partnerships**

Habitat for Humanity, Keep America Beautiful and the Wildlife Habitat Council are important national partners of ours. To read more about these efforts as well as our hundreds of other partnerships and associations, see 10 33.

#### TRASH TRACK

Waste Management funded project "Trash Track" at the Massachusetts Institute of Technology. Through this project, a five-year-old "Sensible Cities" group has attached tracking devices to thousands of pieces of garbage generated in Seattle and New York City in an effort to study where recyclables go and the degree to which recycling benefits the climate.

#### **Enhancing Our Communities**

At Waste Management, we do much more than haul away waste. We strive to keep our communities clean, productive and more beautiful.

Our landfills provide for the safe, responsible disposal of waste and provide power to our communities through landfill-gas-to-energy projects. They also supply tens of thousands of acres for community parks, recreation centers, athletic fields and wildlife habitats

In Ball Ground, Georgia, our Pine Bluff Landfill donated over 30 acres to Cherokee County. This land is now used as a recreation area and includes two ball fields, a walking path, concession pavilions and parking for local county residents to enjoy. Recently, the landfill donated enough land to add 60 parking spaces and native tree plantings to surround the recreation area.

In Campbellton, Florida, our Springhill Landfill and Dothan Hauling facility provide an educational retreat where visitors can enjoy a journey through pristine wetlands and native wildlife habitat while walking on a 1,650-foot-long elevated boardwalk made of recycled plastic. Tours include operation of the landfill and close interactions with nature – including alligators. This facility also has a gas-to-energy plant that generates enough electricity from trash to power over 3,500 homes through the local electric cooperative.

In 2009, Waste Management entered into agreement with the Centre de Formation en Entreprise et Récupération en Québec to construct a new training center that will enable high school dropouts to earn a professional degree in the recovery of electronic materials. The center housed 110 students and nine teachers in the 2010 school year. The building itself is designed to meet LEED standards and will make use of renewable fuel generated by a biogas recovery system at Waste Management's Saint-Nicephore Landfill nearby.

In many regions where we operate, we contribute to our communities by leading efforts to combat illegal dumping. In the Antelope Valley of California, for example, our community relations department has been working with the area's Illegal Dumping Task Force to help reduce the amount of litter tossed around the desert. In many places, Waste Management offers area residents a free – and legal – alternative to illegal dumping, including community cleanup days, dump days and electronic waste disposal days.

See [34] for more about our partnerships with communities.

"Our landfills supply tens of thousands of acres for community parks, recreation centers, athletic fields and wildlife habitats"

#### **ENVIRONMENTAL JUSTICE**

In the United States, there's a common perception that waste disposal facilities are more likely to be located in low-income neighborhoods and minority communities. Such areas are frequently referred to as "environmental justice communities."

For more than 15 years, Waste Management has been collaborating with regulators, community groups, academics, advocates for environmental justice and others in the industry to resolve concerns that such communities bear a disproportionate environmental burden. We have also examined the locations of our own facilities with regard to minority and low-income communities.

Our commitment to being a constructive partner in the work to further environmental justice is longstanding. Since 1994, we have been an appointed member of the U.S. EPA's National Environmental Justice Advisory Council. In this capacity, we have worked with stakeholders from all perspectives on ways environmental programs could ensure justice for all communities, focusing in particular on brownfields revitalization; incorporating environmental justice into environmental permits; best practices for waste transfer stations; ways to enhance pollution prevention; and methodologies and best practices to identify and then reduce cumulative risk in local communities. During the reporting period (2007–2009), Waste Management was a member of state environmental justice advisory councils in Pennsylvania and California as well.

Waste Management was also the principal sponsor of scholarships from 2007 through 2009 for an annual summit on environmental justice convened by the U.S. EPA, the U.S. Department of Energy and the U.S. Department of Labor. Prior to that time, we also co-chaired two National Environmental Policy Commissions convened by the Congressional Black Caucus to develop recommendations on how economic growth could go hand-in-hand with environmental justice.

#### **Analyzing Our Facilities**

Using methodologies reviewed as a member of the U.S. EPA's Advisory Council and now incorporated into the agency's own environmental justice evaluations of its rule-makings, we evaluated our locations in the spring of 2009 and updated our review in 2010 to understand whether our landfills and waste-to-energy facilities are unfairly concentrated in low-income neighborhoods and communities of color. We found that no Waste Management facilities are located in communities below the federal poverty level, and that half of our facilities fall above and half below the median state income. With regard to race, only 34 percent of our facilities are located in communities with higher minority representation than the state average. This pattern holds true for our municipal waste landfills, hazardous waste landfills and waste-to-energy facilities. For more information and a description of our methodology, see

Although our analysis shows that our demographic footprint does not follow a pattern of siting in environmental justice communities, this does not lessen our commitment to work with others in pursuit of environmental justice in public policy forums and at every site in which these issues are raised. We remain fully committed to working with community members, environmental advocates, academics, governmental officials and businesses to find ways to ensure that all communities are healthy and live where the environment is protected. For a list of the many groups with which we collaborate on these topics, see

"... only 34% of our facilities are located in communities with higher minority representation than the state average."

#### **INCOME/RACE WITHIN 5 KM OF WASTE MANAGEMENT LANDFILLS**



#### **PARTICIPATING IN PUBLIC POLICY PROCESSES**

Waste Management is actively engaged in the political process at the local, regional and national levels. We believe this engagement is an important part of leadership for our industry, and it ensures that we represent the best interests of our business and our employees. We aim to contribute positively to the national dialogue on environmental policy, partnering with other stakeholders to paint a full picture of topics material to our business, including: environmental standards and best practices, emerging technology, greenhouse gas emissions, conversion of waste into resources, optimal environmental facility design, and the operation and production of renewable energy.

#### **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. Each year, our Board of Directors receives a detailed accounting of all contributions.

#### **OUR APPROACH TO PUBLIC POLICY OVERSEAS**

To ensure compliance with international law, Waste Management has adopted an antibribery and corruption policy and established a Foreign Corrupt Practices Act (FCPA) Compliance Committee. All employees involved in foreign business projects must receive FCPA training.

#### STANCES ON KEY POLICY ISSUES

The environmental services industry is highly regulated and complex. And it's in flux. More and more, Waste Management and other companies like us are 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. 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.

#### Sound Regulatory Frameworks for Emerging Technologies

Our industry is undergoing a transition to incorporate new technologies capable of transforming wastes into valuable resources. A key example is the diversion of organic material to composting operations rather than landfills. We welcome new ways to turn organics into valuable product. Currently, however, many of these technologies (both older composting practices and innovative techniques) lack strong regulatory standards mandating sound environmental practices. Our longstanding experience with federal, state and local oversight of our core operations, including our collection fleet, landfills and waste-to-energy facilities, has taught us that the competitive market, our customers and the communities in which we operate gain enormously when there are governmentally sanctioned standards for environmental performance. When municipalities want to embrace new technologies that improve how organics or other wastes are handled and turned into resources, they can find themselves stymied by a lack of guidance about who regulates what kind of project and what standards apply to ensure environmental protection. This slows down the pace of our innovation as well as our ability to service our customers' sustainability goals. We will continue to advocate for the development of strong standards to guide emerging organics management technologies.

"Waste Management believes strongly in the need for clear national guidelines around climate change reporting."

#### Standardized Greenhouse Gas Reporting

In calculating our carbon footprint, Waste Management has become acutely aware of the myriad challenges that exist throughout the supply chain in measuring comprehensive greenhouse gas emissions from the commercial sector. In the absence of clear national procedures, many entities must grapple with complex accounting, inventory and recordkeeping requirements. The financial costs of doing so are significant, and inconsistencies among various reporting methods increase the likelihood of miscalculations. As estimates of the impact of greenhouse gases continue to be refined at the national policy level, Waste Management believes strongly in the need for clear national guidelines around climate change reporting.

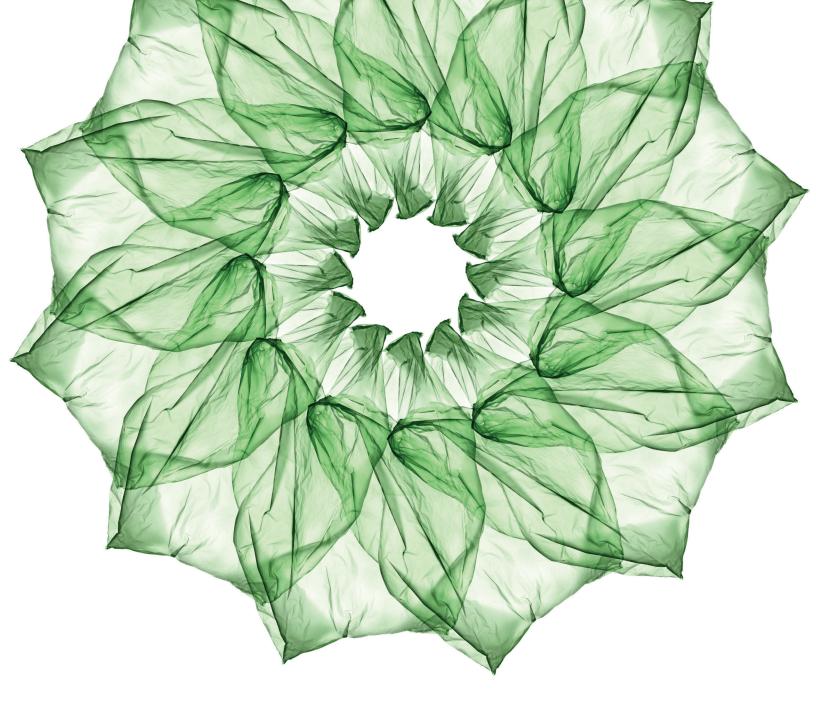
#### Cleaner Heavy-Duty Vehicles

Waste Management is working with the organization Securing America's Future Energy to advocate for federal legislation to increase the efficiency and fuel efficiency of work trucks. Although we have been a leader in partnering with truck manufacturers to reduce emissions and fuel consumption, we remain dependent on engine manufacturers for technology improvements.

#### **COMMUNITY ENGAGEMENT AND MEMBERSHIPS**

Waste Management is an active participant in many business associations and multistakeholder groups. Our business associations inform us of what our customers think and need from us. We find multi-stakeholder forums and associations particularly meaningful because they are the best way to develop environmental solutions that are beneficial from all perspectives. For a list of memberships and associations, see [10] [33].

- <sup>8</sup> U.S. Environmental Protection Agency (U.S. EPA), Municipal Solid Waste Generation, Recycling, and Disposal in the United States: Facts and Figures for 2008 (Washington, DC: U.S. EPA). The U.S. EPA's most recent characterization of municipal waste estimates generation in 2008 at 250 million tons. Waste Business Journal, also generally cited, calculates its estimates differently, based upon industry measures, and estimates annual municipal waste generation in 2008 at 365 million tons.
- 9 See www.wm.com/products-and-services/residential-other-waste-solutions/electronics-recycling.jsp.
- 10 See www.wte.org/fag.
- 11 Note that Waste Management's figure includes landfill gas used to generate electricity as well as its direct use as a fuel (for example, by a nearby manufacturing plant).
- 12 Note that the Waste Management total includes landfill gas used as electricity as well as direct use of landfill gas as fuel substituting for a fossil fuel.
- 13 See www.cewep.eu
- <sup>14</sup> See www.wte.org/userfiles/file/epaletter.pdf.
- $^{15} \ \ See \ www.epa.gov/ncer/publications/research\_results\_needs/combustionEmmissionsReport.pdf.$
- 16 See www.wte.org/fag.
- 17 See www.wte.org/userfiles/file/epaletter.pdf.
- 18 Eileen Brettler Berenyi, Recycling and Waste-to-Energy: Are They Compatible? 2009 Update (Westport, CT: Governmental Advisory Associates, Inc., 2009).
- <sup>19</sup> Renewable energy figures include 16 WTE plants and two plants using waste wood and tires. Output in any given year will fluctuate somewhat, reflecting economic trends that are positive or negative as manifest in the generation of more or less waste. With the addition of a 17th plant in 2010, Waste Management is projected to sell an additional 140,000 MW, powering an additional 30,000 households and avoiding 166,400 tons of coal or 717,200 barrels of oil.
- $^{20}$  Note that this number includes only energy sold, not generated and used to power the facility itself.
- <sup>21</sup> Calculations based on standard WTE industry reporting 1,000 households per installed megawatt.
- <sup>22</sup> Calculations based on standard LFGTE industry reporting 815 households per installed megawatt.
- <sup>23</sup> See www.wm.com/products-and-services/residential-curbside-pickup/index.jsp.
- 24 See www.wm.com/products-and-services/small-business-commerical-pick-up/compactor-monitoring.jsp.
- <sup>25</sup> See www.wm.com/sustainability/protection-and-management.jsp.
- <sup>26</sup> See www.wm.com/products-and-services/small-business-medical-waste-solutions/index.jsp.
- <sup>27</sup> See www.wm.com/enterprise/healthcare/index.jsp and www.thinkgreenfromhome.com/SyringesAndLancets.cfm.
- <sup>28</sup> See www.wm.com/products-and-services/residential-on-demand-disposal/bagster-dumpster-in-a-bag.jsp.
- 29 Through the Strategic Business Framework, we have identified five major stakeholder categories Employees, Customers, Environment, Community and Shareholders. For each stakeholder category, we have established long- and short-term strategies and specific targets and measures.
- 30 See www.wm.com/contact-us.jsp.
- <sup>31</sup> See www.wm.com/about/company-profile/corporate-governance/pdfs/Policy-Environmental.pdf.
- 32 See www.wm.com/wm/procurement/diversity.asp.
- 33 NOVs may be given for anything from a short delay in receipt of a required report to a deviation from any aspect of regulatory standards or permit conditions. Some violations could have the potential to impact the environment, but most do not. Upon investigation, not all NOVs are ultimately found to represent an actionable violation.
- 34 UIC, Terra-Dynamics, and Geosyntec, Municipal Solid Waste Landfill Leachate Characterization Study (Raleigh, NC: Environmental Research and Education Foundation, 2007).
- 35 See www.wm.com/sustainability/protection-and-management.jsp.
- 36 See www.wm.com/about/community/wildlife-habitat.jsp.
- <sup>37</sup> A small amount of the 15 percent reduction results from U.S. EPA-mandated standards for 2007 and 2010 engines. The longer-term reductions will require new technology.
- <sup>38</sup> Emissions were estimated using the U.S. EPA's NONROAD 2008 and SmartWay 1.0 models for particulate matter and nitrogen oxides, while California Climate Registry conversion factors were used to estimate emissions of carbon dioxide, methane and nitrous oxide, the primary greenhouse gases. Since Waste Management vehicle duty cycles are significantly different from the on-road long-haul vehicles for which SmartWay is designed, we are taking the lead in working with SmartWay in the near future to refine their model to better address our vocational fleet.
- <sup>39</sup> The seven facilities include five active landfills, one landfill no longer accepting commercial waste and one underground injection well. In addition, our Wheelabrator Frack-ville waste coal plant reports under TRI as a utility. That facility's air emissions have held relatively steady at 55,000 pounds per year on average, and it has no releases to water or containment in a RCRA Subtitle C unit.
- 40 We are reporting this data to inform our customers and the public about the potential GHG reduction benefits associated with carbon storage in landfills, our renewable energy production and the recyclable materials we collect and process. We are not presuming to characterize how emerging regulatory programs will allocate credit for these avoided emissions, so we do not claim these greenhouse gas reduction benefits as our own, nor attempt to deduct these reductions from our carbon footprint.
- <sup>41</sup> For a discussion of the protocols that govern this calculation of carbon storage or sequestration, see the Appendix at p.28.
- <sup>42</sup> The CCX commitment covers our North American CO<sub>2</sub> emissions from fuel consumption in our vehicles and stationary facilities, as well as from combustion of non-biogenic materials (wastes not produced from a biological process, e.g., plastics or synthetic textiles) at our waste-to-energy facilities with rated capacity of 25 megawatts or larger. These annual inventories are third-party audited by the Financial Industry Regulatory Authority at the direction of the CCX, and then certified. Waste Management committed to Phase II of the CCX, which ends in 2010, and in 2010 the exchange was acquired by IntercontinentalExchange. We are evaluating our continuing participation in light of our focus on new federal climate inventory obligations.
- 43 The CCAR is scheduled to cease in 2010, and for 2009 we shifted our data-collection efforts to assembling our national footprint, anticipating federal collection data needs.
- 44 Substances produced by living organisms or biological processes.
- <sup>45</sup> Our 17th facility, acquired in 2010, is not included in the 2009 data summary.
- <sup>46</sup> Both the UN Intergovernmental Panel on Climate Change and the U.S. EPA's National GHG Emissions Inventory account for carbon sequestration of undecomposed wood products, yard trimmings and food wastes disposed of in landfills.
- <sup>47</sup> GHG emissions from refrigerant use are de minimus and therefore are not reflected in the summary of GHG emission types by percent presented above.
- 48 For more information, visit www.environmentalistseveryday.org/solid-waste-management/environmental-waste-garbage-safety-first/index.php.
- <sup>49</sup> The TRIR reflects the number of injuries that occur for every 100 employees annually.
- <sup>50</sup> The VARR reflects the number of driver hours between accidents. A higher number of hours reflects improvement.
- 51 See www.wm.com/wm/community/giving.asp.



# TRANSFORMING OUR BUSINESS

#### **CAPTURING THE VALUE IN WASTE**

Increasingly, our customers are turning to us not only to manage their waste, but to help them create less of it. We are happy to oblige, because we see this as an important part of the future of our company. In fact, we have transformed our business model to become a more dynamic and integral part of our customers' business models. Building on our history of recycling and waste-to-energy technologies, we are actively working with our customers and their suppliers to find innovative ways to reduce waste generation and turn waste into energy or back into raw materials suitable for reuse.

## Helping our customers succeed in extracting more value from waste helps us to succeed as well.

In 2010, to provide the specialized expertise our customers need, we reorganized ourselves into segments, each focused on environmental solutions tailored to the specific needs of a business sector.

Under this new structure, service teams are focused on helping customers incorporate sustainability principles throughout their operations – from using materials more efficiently in production to considering (during the design phase) the potential for product reuse and the ease of dismantling and recovering materials at the end of a product's life. We also work with service providers to help them safely recycle and reuse as many materials as possible from their waste streams.

#### REORGANIZING TO BETTER SERVE OUR CUSTOMERS

MATERIALS MANAGEMENT	RECYCLING SERVICES	RENEWABLE ENERGY	SUSTAINABILITY SERVICES				
Collection Services	Single-Stream Recycling	Waste to Energy	Upstream				
Transfer Services	Electronics Recycling	Landfill Gas to Energy	Green Squad				
Disposal Services	Organics Recycling						
Commercial Property Solutions							
Construction Solutions							
Food & Retail Solutions							
Healthcare Solutions							
Manufacturing & Industrial Solutions							
Public-Sector Solutions							

While we have used waste for years to produce clean, renewable energy through our waste-to-energy and landfill-gas-to-energy plants (as discussed beginning on p.15), our Renewable Energy operations are at the forefront of pioneering new approaches. We are investing in multiple technologies to advance our renewable energy goals, including new conversion technologies and new uses for organic waste streams. Extracting value from the organic waste stream, one of the largest waste streams we handle, is an area in which we see enormous growth potential through the conversion of biogenic material to power, advanced biofuels and renewable chemicals.

On the pages that follow, we highlight some of our efforts that are providing value to our customers, including product design consultation, renewable energy projects, recycling initiatives and composting programs. For further information, visit our website.

## FROM SUPPLY CHAIN TO SUSTAINABILITY CHAIN

We see the material supply chain as circular: when we pick up a box from a consumer, that isn't the end of the chain – it's the beginning of a new chain that turns one-time waste into a valuable resource. By expanding our focus on the customer to include an advisory role, we can better serve our customers, as well as our broader communities and local governments, as they set their own waste management goals.

As public interest in sustainable products grows, producers of goods are being asked to meet the twin demands of economic growth and environmental stewardship. Accomplishing this is no easy feat. Many products that feature sustainable attributes involve trade-offs that impact their overall environmental performance. A good example is compact fluorescent light bulbs. These use less energy than other bulbs, yet the plastic used by some manufacturers to make these bulbs is not recyclable. Waste Management's Lamptracker® business recycles and recovers the mercury in CFLs and advises how to increase recycling of the other materials these bulbs contain.

If we are truly to convert our waste streams into value streams, it will take working together to achieve innovation at every step of the creation of goods. We think of this shift as an evolution from a linear "supply chain" to a more holistic and integrated "sustainability chain." In the future, we believe companies will collaborate on the design, production, packaging and even transport and disposal of goods to maximize efficiency throughout a product's lifecycle. Waste Management is poised to provide solutions for our customers at every step — evolving our role from waste management to materials management. To learn more, visit: www.wm.com/enterprise.jsp.



"In the future, we believe companies will collaborate on the design, production, packaging and even transport and disposal of goods to maximize efficiency throughout a product's lifecycle."



#### WHAT IS "ZERO WASTE"?

Customers know the importance of setting goals to drive sustainability progress. A number of our customers (and potential customers) have set "zero-waste" goals for their cities, individual facilities or entire businesses. Definitions of zero waste are often as varied as the customers that aspire to it. Zero waste may mean avoiding direct disposal in landfills, but it may also mean reducing, reusing and recycling to the extent that no residuals – not even ash from waste-to-energy combustion – remain unreclaimed.

We don't see zero waste as a threat – in fact, it's an opportunity. Helping customers achieve their zero-waste goals requires exactly the kind of expertise, insight and practical solutions that Waste Management offers. It requires the ability to look upstream to a company's supply chain and production processes and work collaboratively with the customer's experts to recommend changes that will eliminate waste streams and increase recoverable resources. It means that we offer municipalities creative solutions to make waste recycling, reuse and recovery practical. To date, we have helped several major companies and are helping cities achieve their zero-waste goals.

#### THE SUSTAINABILITY CONSORTIUM

In 2009, Waste Management became a founding member company of the Sustainable Product Index Consortium, an initiative launched in 2009 that brings together business suppliers, retailers, nongovernmental organizations and government leaders. Led by co-chairs Dr. Kevin Dooly, a Distinguished Professor of Supply Chain Management in the W.P. Carey School of Business at Arizona State University, and Dr. Jon Johnson of the Sam M. Walton College of Business at the University of Arkansas, the Consortium aims to develop a global database on the lifecycle of consumer products – from raw materials to disposal. Ultimately, the Consortium seeks to create an all-encompassing "green label" that will account for everything from labor conditions to end-of-life disposal. Waste Management is a key participant and partner in this effort, contributing expertise in post-consumer materials, waste reduction and recycling. Other companies involved include Walmart, P&G, Best Buy, Tyson, Unilever, Monsanto, Cargill, Clorox, Dell, HP, Dial, Henkel and PepsiCo.



#### HELPING CUSTOMERS REDUCE COSTS, BUILD BETTER BRANDS AND PROTECT THE PLANET

We pride ourselves on helping our customers achieve their environmental goals – even goals that aren't directly related to managing their waste streams, like conserving energy or reducing water use. We help customers to "rethink" waste by showing them how to eliminate or find higher value for the things they used to throw away. This approach can lead to lower costs, less energy use and reduced GHG emissions.

LAMPTRACKER®: RECYCLING OPTIONS FOR SPECIAL WASTES

LampTracker®, launched in 2007, provides a safe way for commercial, industrial and residential customers to recycle all types of fluorescent lighting and other types of special wastes (e.g., batteries and mercury-containing devices). LampTracker is now the largest lamp recycler in North America, with operational facilities throughout the United States. In 2009, LampTracker recycled over 58 million lamps. To offset emissions generated by shipping recycling kits to businesses, we announced in January 2010 that we would purchase Voluntary Carbon Standard certified carbon offsets from Green Mountain Energy Company. The initial purchase will offset approximately 478,000 pounds of CO<sub>2</sub> emissions – as much as 28,000 trees would absorb in one year, or the equivalent of taking 15,000 cars off the road for a day.

To learn more, visit: www.thinkgreenfromhome.com/closeloop.cfm.

#### **UNCOVERING VALUE WITH GREEN SQUAD**

A growing part of Waste Management is our comprehensive Green Squad sustainability consulting service. Launched in 2008, Green Squad helps businesses identify all manner of sustainable business practices that mitigate risks, build better brands and protect the environment. Green Squad works with clients to uncover resource value all along their supply chain, in many cases enabling them to realize significant cost savings. All aspects of a company's operations are assessed, providing solutions that help meet a variety of needs — from simple recycling programs to complex zero-waste initiatives.

Green Squad professionals are equipped to address the broadest range of customers' sustainability needs. In addition to waste solutions, Green Squad provides sustainability solutions for greening properties, meeting state or local producer responsibility requirements, green performance tracking and reporting, as well as helping architects design properties with features that minimize waste and optimize resource management. In the first two years of its existence, Waste Management's Green Squad helped hundreds of clients in the United States achieve their sustainability goals by recommending business practices that reduce waste, save energy and provide a "next life" for resources they no longer need.

#### REDUCING WASTE WITH OUR UPSTREAM SERVICE

Upstream is the professional services division of Waste Management and provides environmental solutions that are sustainable, cost-effective and ISO 9001/14001 certified. Upstream works with businesses to minimize their environmental impacts by assessing the current state of their operations and developing sustainable, green practices that deliver significant business results. For businesses wishing to enhance their sustainability efforts, Upstream provides a practical guide online to help the company get started. From there, we are able to progress to complex evaluations of how companies can reduce what used to be wasted. For example:

- A major brewing company was looking to recover more value from materials both inside their facilities and out, with the ultimate goal of becoming a "zerowaste" company. They tapped Waste Management to help them formulate a plan, and we enhanced recycling participation by establishing metric-driven programs. This approach resulted in landfill diversion rates of 90 percent and a reduction in costs of more than 20 percent. Waste Management and the company also collaborated to create a national reverse-logistics program to recover commodities from non-saleable goods. The result was a closedloop recycling option that reduced the cost of logistics by 15 percent. The company awarded us its Gold Supplier Award.
- A manufacturing plant in Illinois turned to Waste
  Management to help the facility improve their recycling programs and save money. In just over one year,
  our comprehensive program improved the facility's
  landfill diversion rate from 30 percent to 80 percent,
  moved more than 3.6 million pounds of material into
  a reuse and recycling program and saved the facility
  over \$320,000.

To learn more, visit: www.wmupstream.com/documents/SustainabilityWhitepaper.pdf. See also 36.

#### REDUCING WASTE WITH OUR MUNICIPAL PARTNERS

Waste Management is working through public/private partnerships with governments at the local and state levels to address waste and sustainability goals. These partnerships can take unusual and rewarding turns. For example:

- We have used the equivalent of "money-back coupons" to incentivize recycling in Battle Creek, Michigan. Waste Management partnered with that city to create and pilot Think Green Rewards, a new customer rewards program, designed to help the city meet long-term sustainability and recycling goals. The program offered residents an extra incentive to recycle by tracking their recycling activities online and earning points for using their recycling bin to divert materials including aluminum, plastic, glass and cardboard for reprocessing and reuse. Waste Management tracked recycling rates by neighborhood and offered points redeemable through an online catalog.
- Organizers of major public events such as concerts and sports tournaments – increasingly want to conform their practices with sustainability goals.
   In early 2010, Waste Management sponsored the Phoenix Open professional golf tournament and met the challenge to "green" that event. We increased the recycling rate at the event from 28 percent to 50 percent.

Additional success stories and case studies about these partnerships can be found on our website.

#### **GREEN BUILDING: SERVICES FOR A GROWING TREND**

In the construction industry, green building is gaining popularity. Waste diversion is increasing despite the recession: 20 percent of firms are diverting half of their construction waste on 60 percent or more of their projects, and 25 percent of firms expect to do so in 2010. The LEED green building certification system has become the de facto standard for design and construction, in order to:

- · Reduce the amount of building material waste going into landfills,
- Design buildings to maximize the efficiency of the materials used, and
- Encourage the reuse, recycling and recovery of construction materials.

Waste Management managed or consulted on more than 900 LEED-registered projects from 2008 through 2009. Each of these projects actively engaged in diverting construction and demolition materials from landfills and used our services to recycle approximately 75 percent of the materials generated.



## CREATING RENEWABLE ENERGY AND NEW PRODUCTS FROM WASTE

The more our customers ask us to help them find value in their waste streams, the more we recognize that "waste" simply is no longer the right term for the materials we collect and manage. Nowhere is this more evident than in energy generation. We are exploring numerous new technologies for converting waste into alternative fuels, as well as looking into wind, solar and other emerging technologies at our landfill facilities.





#### ORGANICS RECYCLING REPRESENTS NEW GROWTH

In 2010, in response to customer demand, we expanded our Organics Recycling Group. Every year, homes and businesses in North America generate around 55 million tons of organic waste, not including sewage. About half of this waste is grass clippings and other biomass from yards; the other half is food scraps. Most yard waste is recycled, but most of the food is not. In the coming years, we will be developing new approaches to convert this resource into energy, advanced biofuels and renewable chemicals. As we invest in new technologies and approaches, we have one guiding principle: how can we extract the highest value from the wastes we receive? We are looking into partnerships and new ventures offering different approaches. We know some will prove more practical and environmentally productive than others; when we have determined that, we will expand the scope of the most promising.

#### **GREEN ENERGY AT "NEXT-GENERATION" LANDFILLS**

Traditionally, landfills have been "dry tombs," sealed up to minimize exposure to outside air and water. While helping to ensure that these landfills are environmentally secure, this approach also tends to prevent the breakdown of waste inside the landfill. By contrast, "next-generation" or "bioreactor" landfills reinvent the goal of landfilling from the storage of waste to the treatment of waste.

In a next-generation landfill, microbial degradation is encouraged by adding aqueous liquid wastes, nutrients or rich air to the waste. The result: a much faster decay of waste and transformation of the waste into water and gases (including methane and carbon dioxide). These byproducts can then be harvested to generate energy, as in other landfill-gas-to-energy processes. Once the waste it contains is fully degraded, a landfill is stabilized and available for a broad range of beneficial uses.

Waste Management currently operates 10 next-generation landfills in the United States and Canada, and six additional landfills are in the permitting stage. All of our sites are being studied under a Cooperative Research and Development agreement with U.S. EPA.

#### IN ORDER TO FURTHER OUR RENEWABLE ENERGY GOALS, WE ANNOUNCED THE FOLLOWING STRATEGIC INVESTMENTS IN 2009 AND THE BEGINNING OF 2010:

IN APRIL 2008, we announced a joint venture with the Linde Group to create a facility at our Altamont Landfill near Livermore, California, that would convert landfill gas into liquefied natural gas to power our trucking fleet. This plant – the largest of its kind – is now producing up to 13,000 gallons of fuel per day. Using bio-methane LNG results in 90 percent fewer greenhouse gas emissions compared to natural gas from fossil fuel.



**IN 2010**, we plan to produce 2 million gallons of bio-methane LNG and purchase an additional 100 LNG-powered vehicles. We are also investigating technology that could convert gas from landfills into a synthetic diesel fuel.

IN MAY 2009, we undertook a joint venture with InEnTec to develop projects for processing nonhazardous waste, such as medical waste and other segregated industrial and commercial wastes. InEnTec uses a technique called "plasma enhanced melter gasification," which processes waste to produce renewable energy and environmentally beneficial fuels and industrial products, as well as to generate electricity. The first project of the joint venture, called S4, is being built at Waste Management's Columbia Ridge Landfill in Arlington, Oregon. In 2010, InEnTec received the top energy prize in the Wall Street Journal's annual Technology Innovation awards.



**IN FEBRUARY 2010**, we made a strategic investment in Enerkem, a Canadian company which, through proprietary thermo-chemical technology, helps convert waste materials into advanced biofuels such as ethanol, as well as renewable chemicals. Enerkem's technology is able to process diverse carbon-based feedstocks, including sorted municipal solid waste, construction and demolition wood, and agricultural and forest residues.





IN AUGUST 2009, we invested in Terrabon, a Texas-based startup. Terrabon's MixAlco™ technology is an acid fermentation process that converts biomass into organic salts. The organic salts can be converted to a high-octane gasoline that can be blended directly into a refiner's fuel pool, avoiding many of the blending and logistics challenges presented by ethanol.

**IN AUGUST 2010**, we finalized a controlling investment in Garick, LLC, a leading producer of lawn and garden supplies from organic residuals. Garick's operations will add over 1 million tons of processing capacity as well as commercial and consumer organic products to Waste Management's organics recycling business.



**EARLY IN 2010** we made an investment in Harvest Power, a Waltham, Massachusetts-based company that generates high-quality compost with a proprietary technology that controls odors and potential emissions. We're providing the raw materials for Harvest Power's composting, biogas and syngas operations and helping the company expand to more cities. We're also working with them on developing high-solids aerobic and anaerobic digestion and composting technologies, which accelerate the decomposition of organic materials to produce renewable energy.

**IN MARCH 2008** in Pennsylvania, Waste Management partnered with Excelon and Epuron on the fourth-largest solar energy installation in the United States and the largest on the East Coast. The installation is on property adjacent to the GROWS landfill in Morrisville, Pennsylvania, and will provide enough power to supply 400 homes in Bucks County.



#### **GREENING HOMES AND COMMUNITIES**

Making it easy for our customers to reduce their environmental impact is one of the most important things we can do as a company. Through interactive websites and residential recycling programs, we provide a variety of ways for individuals to take action in their own homes and communities.



#### THINK GREEN FROM HOME

We launched www.ThinkGreenFromHome. com in 2008 to encourage our residential customers to safely and conveniently dispose of common items that contain heavy metals, like certain household batteries, compact fluorescent bulbs and e-waste, as well as medical needles and syringes. Customers can purchase specially designed boxes online to facilitate simple returns to Waste Management processing facilities via the U.S. Postal Service. The idea is to encourage recycling so that potentially hazardous items don't end up collecting dust in a garage, or worse, getting accidentally tossed into a landfill. To learn more, visit: www.thinkgreenfromhome.com.

#### **GREENOPOLIS**

Greenopolis is a green information platform and revolutionary material recovery system in one. It is designed to educate, foster ecofriendly collaboration and bring together physical and digital infrastructures.

The Greenopolis Recycling System makes personal recycling goals both achievable and desirable. The system includes interactive kiosks – at grocery stores, retail outlets and high-traffic venues like stadiums – where users can recycle. For every item recycled, points are earned, which can be redeemed for rewards at **www.greenopolis.com**. Rewards include coupons or discounts on entertainment, dining, travel, personal services and more. Some locations (like

Whole Foods supermarkets) give in-store coupons whenever a user recycles, offering even more incentives for participation.

Greenopolis.com is a Waste Management-sponsored online community featuring a daily stream of stories and tips on sustainability. In addition to earning points for recycling through the kiosks, participants can earn points simply by participating in the online community. Since the program's inception in 2008, Greenopolis recycling kiosks have collected more than 1 million items, and more than 1 million visitors have visited the website.

The birth of Greenopolis traces to four likeminded companies – Waste Management, Nestlé Waters North America, Whole Foods and McDonough Braungart Design Chemistry – that teamed up to find a way to "reincarnate" plastic bottles and create a "cradle-to-cradle" recycling chain. The collaboration led to a new brand of natural spring water from Nestlé called re-source®, sold in recycled PET plastic bottles, which can be recycled endlessly through the Greenopolis Recycling System.

In 2010, the Greenopolis Recycling Program expanded to include a partnership with PepsiCo. Through PepsiCo's Dream Machine recycling initiative, Waste Management is supporting the company's goal of increasing "recycling on the go," to grow the U.S. beverage container recycling rate from 34 percent to 50 percent by 2018. As of mid-2010, Greenopolis kiosks were launching across California, Florida, Arizona and North Carolina, to give consumers points for each container recycled. Greenopolis's companion Facebook game, Oceanopolis, is an entertaining way to learn about sustainable living. In Oceanopolis, players build and manage a sustainable environment comprised of their own island, surrounding ocean waters and the habitats of their friends.

For more on how we are investing in new ways to recycle, see 36.





#### SINGLE-STREAM RECYCLING

Single-stream is a recycling system that allows consumers to put all their recyclables into a single bin. Instead of the traditional two streams found in most curbside recycling programs - mixed paper and comingled containers – single-stream recycling simplifies the process and allows mingled recyclables to be sorted later, at a state-of-the-art materials recovery facility. The simplicity of this collection has been shown to increase rates of recycling an average of 30 percent. In fact, a 2009 study conducted for Waste Management by the Earth Engineering Center of Columbia University at facilities in Massachusetts and New Jersey saw an increase of 40 percent when single-stream recycling replaced dual stream. Single stream not only makes recycling easier and increases participation, it also helps reduce collection costs and emissions.

The city of Springfield, Massachusetts, is a great example of single stream's benefits. In cooperation with the state's Department of Environmental Protection and Waste Management Recycling Services, the city launched the first curbside single-stream pilot program in Western Massachusetts in September 2008. The city more than doubled the amount of recycling in the pilot area.

The program's goal was to encourage residents to recycle more, not only for the environmental benefit, but to conserve city resources. For every ton of trash residents recycle, the city saves \$75 on trash disposal costs. Springfield's Department of Public Works conducted a survey of the pilot area to garner residential feedback, and the comments were overwhelmingly positive:

- 97% of respondents said the 95-gallon recycling carts made recycling easier;
- 96% thought the city should expand the system;
- 89% thought the system kept the city cleaner; and
- · 82% said they disposed of less trash;

After the successful pilot program, citywide single-stream recycling was introduced, featuring the same 95-gallon wheeled carts used in the pilot. Early citywide figures show that the 95-gallon cart areas (about 38 percent of the city) recycled more than double what the non-cart areas recycled.

In 2009 Waste Management operated 30 single-stream recycling facilities across the country; an additional four will be in construction or open by the end of 2010. Some of our newest single-stream recycling processing plants are capable of recycling more than 1,000 tons on an average day. In commercial markets, we believe single-stream technology will allow us to extract larger amounts of higher-value commodities such as office paper, plastic and aluminum.

97% said it "made recycling easier"

96% said the "city should expand the system"

89% said the system "kept the city cleaner"

82% said they "disposed of less trash"

SURVEY RESULTS FROM FIRST CURBSIDE SINGLE-STREAM RECYCLING PROGRAM IN SPRINGFIELD, MASSACHUSETTS



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