



# **Giving Resources New Life<sup>®</sup>**

## **Casella Sustainability Progress Report 2010**

*Helping customers and communities conserve, renew,  
and sustain the world's limited resources.*

**casella**  
waste systems, inc.



Dear Friend,  
Nearly a year has passed since we published our first full Sustainability Report. In that report, we painted a picture of a world both recognizing and struggling with the reality of limited environmental and societal resources. We shared our vision of the role we intend to play in shifting toward a sustainable, resource-cycling economy that applies human ingenuity to convert limits into opportunity and abundance.

As we look back today, we see that our assessment was correct, and that the sustainability pathway we laid out for ourselves is exactly where we need to be. The opportunities to solve problems around energy, clean air and water, and resource renewal are becoming foundational to our economy, and new problems – and opportunities – are presenting themselves on a seemingly daily basis.

In light of these trends and others, we still believe the future belongs to those who solve the world's problems of resource limits. We remain firmly dedicated to our focus on sustainability and continue to recognize its potential to help build and strengthen our business. And, we are certain our resource renewal expertise and infrastructure are setting us apart within our industry. Every day our Customers ask us for new resource solutions, and meeting and exceeding their expectations is at the very core of our success and strategic value as a company.

In the following pages, you'll find a brief "progress report" on our journey along the sustainability pathway. We are pleased with that progress, and look forward to sharing a richly detailed, full report with you next year.

Regards,

A handwritten signature in black ink that reads "John W. Casella". The signature is stylized and cursive.

John W. Casella  
Chairman & CEO  
Casella Waste Systems, Inc.



# ***Introduction***

In our 2009 Sustainability Report, we described our commitment to Resource Renewal and we outlined our goals for continuously improving our ability to meet and exceed the expectations of our stakeholders. We concluded with our Sustainability Scorecard, which identifies specific metrics and targets related to our most significant environmental, social, and economic impacts. We intend to publish a full Sustainability Report every other year and a Progress Report, such as this one, in interim years. This Progress Report provides an update of our Scorecard and a brief discussion of our 2010 performance.

## REDUCING AND REUSING

In our 2009 report, we established an ambitious target to be diverting 50% of the material we control by the year 2014. Early in calendar year 2011, we sold 17 of our recycling facilities, which were located outside of our core operating footprint. Making this sizeable reduction in our overall recycling capacity was not an easy decision, but was essential to our long-term financial sustainability. Although the change has reduced our overall recycling tonnage, it has also driven us to increase our focus

on recycling and to broaden the range of recycling opportunities we offer to our customers in the Northeastern US.

This renewed focus on strengthening several resource renewal initiatives, beyond simple recycling, will move us closer to our 50% diversion target.

## 50% DIVERSION



**Zero-Sort Recycling:** We are growing our Zero-Sort recycling business with a focus on operating our remaining recycling facilities at full capacity. We are also building our capacity by converting our existing Rutland, VT dual-stream facility to Zero-Sort.

**Organics Recycling:** We have partnered with AGreen Energy LLC, to recycle organic materials (such as food scraps and food processing residuals) at our new Anaerobic Digester in Rutland, MA. *(learn more on page 5)*

**Used Vegetable Oil Recycling:** We have begun offering Used Vegetable Oil collection and recycling through a process that converts the material into a renewable diesel fuel that can be used in vehicles and for heating buildings.

**Electronics Recycling:** We are building partnerships to provide a more convenient and comprehensive electronics recycling service to our customers.

**Industrial Waste Assessments:** We are working with select industrial customers to identify new and innovative recycling opportunities for large waste streams typically sent to landfill, incineration, or wastewater treatment facilities.

**Transfer Station Diversion:** We are investing in systems and an incentive program to drive increased materials recovery at our transfer and drop-off stations.

## ENERGY GENERATION

In 2010, we produced enough electricity for over 33,000 homes. Our Landfill Gas to Energy power plants produced 98,651 megawatt hours. This includes electricity generated at our power plants at the Pine Tree Landfill, Clinton County Landfill, and Hyland Landfill. It also includes two months of electricity generated at Steuben County Landfill's new power plant, which we operate. Our Waste to Energy facility in Maine produced 121,591 megawatt hours.

We are continuing to develop energy generation projects throughout our operations. By the end of 2011 we will open a new LFGTE plant at our landfill in Southbridge, MA. We are also working to install solar panels on the roofs of our recycling plants, and exploring several innovative heat recovery opportunities at our landfills.

## GREENHOUSE GAS EMISSIONS

We are happy to announce that between 2005 and 2010 we reduced our company-wide carbon footprint by 45%. This represents a reduction of 901,000 metric

tons of carbon dioxide equivalent emissions, which is comparable to taking 175,000 passenger vehicles off the road or planting 192,000 acres of pine forest. Through our commitment to greenhouse gas reductions, we are doing our part to fight climate change.

Our most significant emission reductions were achieved at our landfill facilities. Between 2005 and 2010 our landfill acreage grew by 51%, yet our landfill methane emissions dropped by 51%. We achieved this significant accomplishment by beginning to apply our Low Emission Landfill model, which improves landfill design, construction, and operations to minimize landfill emissions and maximize landfill gas recovery.

In addition to reducing our landfill emissions, we've cut emissions from our vehicle fleet through fuel efficiency measures such as routing improvements and loading optimization. We have also begun strategically converting our collection fleet to run on Compressed Natural Gas (CNG),

which burns cleaner and quieter, and reduces our exposure to fluctuating diesel prices. Today we have CNG fueling infrastructure at three locations, with space to

accommodate 29 vehicles. Five CNG vehicles are now in full operation, and we have more trucks on the way.



## Managing Organics with Anaerobic Digestion

Earlier this year we opened our first anaerobic digester project, which has added a new tool to our tool belt for recycling source separated organics streams. What is anaerobic digestion? It is a process that converts organic wastes such as food scraps, liquid food processing by-products, and animal manure into renewable energy and fertilizer. It is a natural process, in which oxygen-deprived bacteria consume organic materials and generate their own wastes, including methane gas, carbon dioxide and plant nutrients.

All of this occurs at the new anaerobic digester on Jordan Dairy farm in Rutland, Massachusetts. This is the first of three projects we will build with our partners, AGreen Energy LLC and Quasar Energy. When all three sites are up and running, we will be producing over 10,000 Megawatt-hours of electricity, 42,000 MMBtus of thermal energy, 34,000 tons of liquid fertilizer, and 13,000 cubic yards of soil amendment product.

## CHARITABLE CONTRIBUTIONS

We are proud to contribute to the communities in which we live and work. In 2010 we donated over \$300,000 to charitable organizations and events, exceeding our annual goal of \$250,000. In addition to these monetary donations, we regularly donate our services to local volunteer efforts.

Our charitable giving is about more than dollars and cents. Each project we support is special and rewarding, and we'd like to highlight a few of them here.



**Toys for Kids:** Partnering with WPTZ/Channel 5, the Salvation Army, and the Marine Corp League we donated \$12,500 in 2010 towards providing toys for children in need in Vermont and New Hampshire.



**Class Act:** Partnering with WPTZ/Channel 5 and area McDonalds, the University Mall and Jiffy Marts (customers of ours), we collected school supplies at 80+ locations throughout VT and NH that were distributed to area children in need.



**Red Cross:** We donated \$12,500 to help victims of this spring's Lake Champlain flooding and flash flooding in Montpelier, VT.



**Cradles to Crayons:** A Boston based non-profit that distributes roughly \$5 million in supplies to deserving Boston area children from infant age to 12 years old. We provided Cradles to Crayons branded tractor trailers that we parked on city hall plaza in Boston to collect 27,500 backpacks stuffed with school supplies.



**CLiF:** This spring we teamed up with the Children's Literacy Foundation of VT and NH. During Vermont Public Radio's May pledge drive, we donated 1 book for every pledge they received, funding 6,500 books for children throughout the communities we serve.



## Partnering with our Industrial Customers

At Casella we are continuously evaluating the materials we manage and exploring new opportunities for reuse or recovery. We take pride in working closely with our customers to find innovative new solutions to their needs. Here are two examples.

**Paper Mill Industry:** For decades we have been helping paper mills in the Northeast recycle short paper fiber, which is a by-product of the paper manufacturing process. The material contains organic matter, clay fillers, and lime, which can improve soil structure, fertility, and pH when applied to land. We recently secured a patent on a process that prepares this material to be used in a bedding product for dairy cows. We are proud to be supporting the region's economy and environment by helping paper mills recycle their residuals and giving farmers access to low cost bedding for their animals. For more information on FiberBed™, visit [www.newenglandorganics.com](http://www.newenglandorganics.com).

**Oil & Gas Industry:** The recent emergence of the northeast shale gas industry has introduced some new waste streams in our region. The extraction of natural gas from shale deposits creates drilling and production wastes that require attentive management. We are well-positioned to use our facilities and expertise to provide environmentally-responsible management and seek out new waste reduction and recycling opportunities. Some of our waste solutions for the industry, such as water treatment, reuse, and solidification, are in the early stages of development. Look for an update in our next full report.

## CUSTOMERS RECYCLING

As part of our commitment to Resource Renewal, we are working with each of our commercial customers to encourage them to begin recycling. By offering the simplicity of Zero-Sort recycling, we're helping our customers realize that they do in fact have enough time and space to recycle and that it can help them save money.

This is one of the true "sweet spots" of our sustainability effort, where what's right for the environment also saves money for our customers and builds our business. Everyone wins.

Over the next two years, increasing recycling rates among our commercial customers will be a key sustainability effort for us. As of the end of 2010, over 32% of our commercial customers were recycling with us. By 2012, we aim to increase that number to 50%.

## CONCLUSION

2010 was marked by new achievements and new challenges, and most importantly, an ever-growing commitment to providing customer-driven solutions and realizing our sustainability vision.

In the following pages you will find an update of our Sustainability Scorecard, with updated data for our full range of target metrics. We hope that our stakeholders will enjoy this interim update on our biennial sustainability reporting. We look forward to issuing our next full Sustainability Report, which will report 2011 data, in summer 2012.

# Sustainability Scorecard

CASELLA SUSTAINABILITY PROGRESS REPORT 2010

Our Sustainability Scorecard provides a clear and concise overview of our key performance indicators and targets.

## Resource Renewal

DESCRIPTION	DETAILED DESCRIPTION	2005	2006	2007	2008	2009	2010	TARGET
Material Recycled	Recycling tons received, processed, and brokered; consisting of ONP, OCC, ferrous and non-ferrous metals, PET, HDPE, LDPE	468,423	519,020	510,813	515,233	511,724	580,655	Recycling / Diversion Target: By 2014, recycle 50% of the tonnage we handle.
Organic Material Recycled	Organic recycling tons processed for beneficial land use applications, or directly land applied (Fiscal year data)	215,679	218,660	244,250	302,278	269,250	310,934	
Recycling / Diversion Rate	Total materials and organics recycled, as a percentage of total tons handled	19%	19%	18%	19%	20%	21%	○
Material Disposed of in Landfill with Energy Recovery*	Solid waste tons disposed of in Casella landfills with energy recovery	930,516	967,033	931,101	1,886,439	1,872,682	1,701,517	Disposal Target: By 2020, all Casella disposal facilities will include energy recovery.
Material Disposed of in Landfill without Energy Recovery*	Solid waste tons disposed of in Casella landfills without energy recovery	1,750,237	1,889,327	2,251,255	1,331,257	1,125,056	1,546,222	
Material Combusted in Waste-to-Energy	Solid waste tons disposed of at the Casella WTE facility, after processing	209,156	217,905	207,714	211,065	214,263	200,778	
Disposal in Facilities without Energy Recovery	Tons disposed of in landfills without energy recovery, as a percent of all tons disposed	61%	61%	66%	39%	35%	45%	●
Energy Produced from Waste Combustion	Megawatt hours produced and sold	159,913	165,034	162,915	122,783	121,980	121,591	Energy Goal: Diversify our energy portfolio to include LFG direct-use and heat recovery by 2015.
Energy Produced from Landfill Gas-to-Energy	Megawatt hours produced and sold	N/A	N/A	N/A	34,005	91,653	98,651	

\* Solid Waste Tons include amortizable tons and exclude beneficial use and alternative cover materials.

## Energy & Environment

DESCRIPTION	DETAILED DESCRIPTION	2005	2006	2007	2008	2009	2010	TARGET
Landfill Greenhouse Gas Emissions (metric tons CO <sub>2</sub> e)	Total landfill GHG emissions calculated using the EPA Climate Leaders Landfill Inventory Protocol	1,770,356	1,093,056	950,427	1,033,728	929,107	870,362	
Facility and Fleet Greenhouse Gas Emissions (metric tons CO <sub>2</sub> e)	Total GHG emissions calculated using EPA Climate Leaders protocol; includes direct emissions from on-site and fleet fuel combustion, and indirect emissions from electricity purchases	215,826	228,546	222,546	213,412	206,403	213,846	
Total Scope 1 and 2 Greenhouse Gas Emissions (metric tons CO <sub>2</sub> e)	Total Scope 1 and 2 GHG emissions calculated using EPA Climate Leaders protocol	1,986,182	1,321,602	1,172,973	1,247,140	1,135,510	1,084,208	-5% ● Reduce 5% below 2009 by 2012
Electrical Energy Consumption	Megawatt hours consumed in buildings and facilities	43,796	44,142	46,687	18,074	17,561	17,554	0% ● Reduce 5% below 2009 by 2012
Natural Gas Consumption	Therms of natural gas consumed in buildings and facilities	163,449	126,224	172,607	221,231	616,937	569,432	-8% ● Reduce 5% below 2009 by 2012
Fleet Diesel Fuel Consumption	Gallons of diesel fuel consumed by vehicle fleet	6,579,261	7,246,756	7,177,261	7,246,177	5,832,394	5,781,862	-1% ● Reduce to 10% below 2009 by 2013
Environmental Compliance Enforcement Actions	Number of environmental compliance enforcement actions per facility (e.g. 5 enforcement actions divided by 100 facilities = 0.05)	0.05	0.07	0.04	0.05	0.09	0.09	Goal is zero. Strive for continuous improvement
Petroleum Releases	Petroleum spills that meet the criteria of being state or federal reportable	N/A	N/A	N/A	N/A	88	81	-8% ● Reduce to 25% below 2009 by 2011

Progress towards numeric targets: ● Achieved, ● On Target, ○ Needs Improvement

## Our People

DESCRIPTION	DETAILED DESCRIPTION	2005	2006	2007	2008	2009	2010	TARGET	
Employee Retention Rate	Percent of all full-time employees remain with our company annually	70%	75%	74%	77%	84%	85%	●	86% by 2012
401 k Participation	Percent of eligible employees participating in the Company's 401(k) plan	n/a	22%	18%	26%	38%	43%	●	45% by 2012
Stock Purchase Participation	Percent of eligible employees participating in the Company's stock purchase plan	n/a	6%	5%	5%	6%	5%	○	10% by 2012
Automotive Accidents	Total number of fleet claims determined to be preventable	258	228	283	273	312	266		Goal is zero. Strive for continuous improvement
Employee Injuries	Total number of workers compensation claims determined to be preventable	321	285	268	258	223	173		Goal is zero. Strive for continuous improvement
Days Away, Restricted, or Transferred due to injury (DART) Rate Source: Recycling Ops*	Days away from work, restricted activity, or transferred to another job due to an on-the-job injury; this number represents the number of occurrences per 200,000 hours worked (Fiscal year data)	1.67	1.08	0.49	0.76	0.48	1.76	○	Maintain below 1.0

\* The 2010 increase in our DART rate reflects a shift in the composition of our recycling operations, following the divestitures described on page 4 of this report. The facilities that make up our current footprint are more complex operations with numerous processing tasks and multiple shifts. We are pleased to note that none of the injuries reflected in this rate were serious injuries requiring more than one day's absence from work. Nevertheless, we strive to reduce all injuries, regardless of severity.

## Our Communities

DESCRIPTION	DETAILED DESCRIPTION	2005	2006	2007	2008	2009	2010	TARGET	
Charitable Contributions	Charitable cash donations (This figure does not include in-kind services, which are not presently tracked)	\$450,924	\$397,850	\$429,778	\$389,213	\$214,257	\$303,267	●	\$250,000 per year
Employee United Way Donations	Cash value of employee donations	\$14,283	\$12,756	\$15,085	\$14,519	\$12,585	\$10,500	○	\$15,000 by 2012

## Our Customers

DESCRIPTION	DETAILED DESCRIPTION	2005	2006	2007	2008	2009	2010	TARGET	
Commercial Customer Retention	Average number of years commercial customers stay with Casella	N/A	N/A	N/A	7.5	8.0	7.8	○	8.0 by 2012
Residential Customer Retention	Average number of years residential customers stay with Casella	N/A	N/A	N/A	7.4	7.9	7.5	○	8.0 by 2012
Commercial Customers Recycling	Percent of commercial customers recycling	N/A	N/A	32.2%	30.6%	31.4%	32.1%	●	50% by 2012

Progress towards numeric targets: ● Achieved, ● On Target, ○ Needs Improvement

We report our sustainability metrics on an operational control basis, wherein we include all facilities and operations over which we have operational control. When acquisitions or divestitures materially impact our metrics, we adjust our historical data to reflect the change, to allow "apples to apples" comparisons. The recycling facility divestitures described on page four of this report created material shifts in the following metrics: Material Recycled, Recycling/Diversion Rate, Facility and Fleet GHG Emissions, Total GHG Emissions, Electrical Energy Consumption, Natural Gas Consumption, Employee Injuries, and DART Rate. Of these, all have been updated to reflect the divestiture except for the Injury and DART rates, which reflects the divestiture only for the 2010 reporting year. With our 2011 report, where it is relevant to our targets, we will update the remaining historical data. We welcome all of our stakeholders' suggestions and recommendations if there are certain metrics you would like to see updated.



*Learn more about how Casella gives  
resources new life at [casella.com](http://casella.com)*

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