



Pioneering science delivers vital medicines™

# Amgen 2011 Environmental Sustainability Highlights



## Leadership Message



*Left: Kevin W. Sharer (left) and Robert A. Bradway.*

*Right: Amgen's facility in Seattle includes low-water plantings.*

### Leadership Message

Amgen delivered results in 2011—among them, advancing our comprehensive environmental sustainability plan. This environmental sustainability highlights brochure describes how Amgen reduced our environmental impact and integrated sustainable practices across the many complex activities we undertake to bring medicines to patients.

In 2011, Amgen exceeded four of our six 2012 conservation targets—in energy, water, and recycling and reduction of waste—and the Company is on course to meet carbon dioxide and fleet fuel efficiency targets this year. Amgen has cut millions of dollars in costs as a result of conservation efforts.

Staff participation is the key to meeting our environmental sustainability goals. Innovative Amgen staff members have found ways to conserve resources and improve our

business processes—from conserving almost 2,000 cubic meters of water a year in Rhode Island to reusing 72 percent of treated wastewater in Puerto Rico. We're proud of their efforts both within our Company and in our communities.

As we reflect on our achievements in 2011, Amgen is already planning for the next phase of our environmental sustainability program that focuses on new targets for 2020 and continues to build sustainability into the way Amgen operates.

Kevin W. Sharer  
Chairman and Chief  
Executive Officer

Robert A. Bradway  
President and  
Chief Operating Officer

This brochure, a supplement to Amgen's 2011 Environmental Sustainability Report found at [environment.amgen.com](http://environment.amgen.com), highlights how we have successfully implemented an environmental sustainability plan in a data-driven and strategic way. Our approach is to focus on initiatives that both benefit the environment and help us become a more efficient and cost-effective company.

## Our Targets

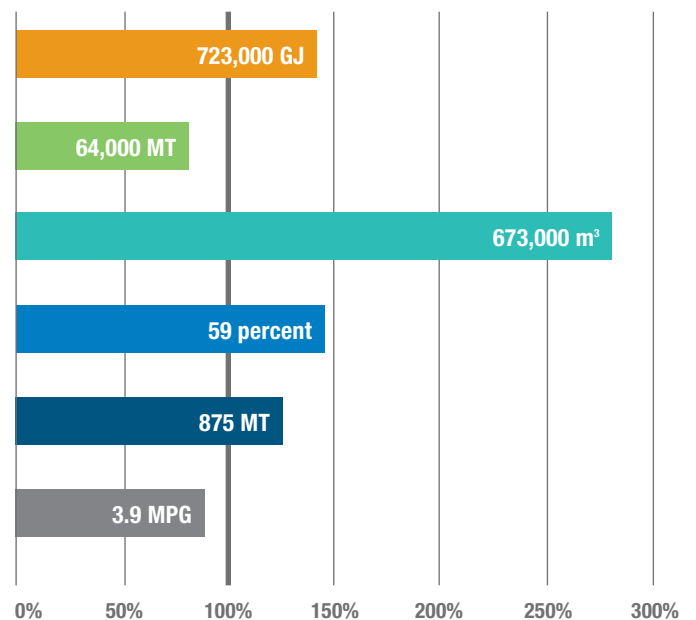


In 2008, we set six environmental targets: energy, carbon dioxide, water, waste recycling, waste reduction, and the fuel efficiency of our U.S. sales fleet. We identified these as areas where we initially could make the most progress in reducing both our environmental impacts and our business costs. We designed our targets so that we track our progress through deliberate efforts we make, without influence from growth or contraction in our business. We use a formal measurement process to confirm results. We're proud that we have exceeded our energy, water, and waste targets, and we're on track to achieve the remaining targets by the end of 2012.

### 2012 Target

### Percentage Complete Through Year-end 2011

- Energy** Reduce 500,000 gigajoules (GJ)  
*12% of 2007 baseline*
- Carbon dioxide** Reduce 75,000 metric tons (MT)  
*18% of 2007 baseline*
- Water** Reduce 235,000 cubic meters (m<sup>3</sup>)  
*7% of 2007 baseline*
- Recycling** Divert more than 40%  
*2007 rate was 38%*
- Waste** Reduce 700 metric tons (MT)  
*7% of 2007 baseline*
- Fuel efficiency** Improve by 4 miles per gallon (MPG)  
*23% of 2007 baseline*



*Amgen operates in 53 countries, with a physical presence in 45 countries. To limit our environmental impact, we share best practices across our global networks, and the projects we pilot at one location are often adapted for use at other facilities.*

## Conservation Progress Across the Network



*Left: Our Colorado facility receives recognition from the state.*

*Center: Our Rhode Island facility makes water conservation a priority.*

*Right: A facility goes all out for composting.*

### **Amgen Named Energy Partner of the Year in Colorado**

In July 2011, Colorado governor John Hickenlooper named Amgen the state's Energy Partner of the Year. The governor recognized Amgen Colorado for reducing energy usage overall by 15.5 percent at facilities in Boulder and Longmont from 2008 through 2010, efforts that have helped make Colorado a leader in energy efficiency. Amgen is one of 13 charter members of Colorado's Industrial Energy Challenge, a voluntary program for Colorado businesses that spend more than \$200,000 a year in energy bills.

### **Staff Resourcefulness Conserves a Vital Resource**

Amgen is one of the largest users of water in Kent County, Rhode Island. As a good neighbor in this community, the facility there has built a culture of diligence and problem solving when it comes to water conservation. Plant technicians closely observe conditions and equipment, ask questions, and pursue solutions to make a positive impact.

As just one of many examples of that ethic, a senior maintenance technician observed that a pipe associated with a cooling tower pump was running water to drain. "What if that water could be recycled?" he wondered. Just one week after reporting his discovery through the

facility's effective program for continuous improvement, the team had rerouted the pipe to send the water back to be used in the cooling tower water system, saving almost 2,000 cubic meters of water a year. The facility estimates it's saved more than 15,000 cubic meters of water total since 2009 from staff ingenuity and input such as this.

### **Making the Leap to Large-Scale Composting**

In 2011, our facility in Colorado switched all disposable food-service items—right down to straws and coffee stirrers—to compostable varieties. This was a choice that made good sense in this location. We're striving as a company to reduce waste sent to landfills, and composting services are widely available for Colorado's residents and businesses. The full-scale food-service composting at Amgen Colorado is not only more environmentally friendly; it also makes life a little easier for staff, who can now toss food-service waste into one place instead of spending time sorting it into various bins.

As the program's manager admits, the program is not without challenges, but feedback has been overwhelmingly positive. Through food-service and other composting programs, the facility diverted more than 30 metric tons of waste from landfills to a new life as garden soil in 2011.

*From developing molecules to constructing our facilities, we are seeking more-environmentally-responsible approaches in alignment with our business goals. Our Design for Environment program is integrating environmental sustainability into many core areas of Amgen's business.*

## Sustainable by Design



*Left: We renovated a building in Thousand Oaks, California, that combines green building techniques with enhanced collaboration approaches.*

*Right: Green chemistry and green biology practices improve efficiency.*

### **Green Biology, Green Chemistry**

Through Amgen's Green Biology and Green Chemistry programs, our scientists are seeking ways to make processes more efficient and to use greener compounds and fewer resources in the development of our medicines.

Staff members are using a guide that assesses environmental properties of raw materials along with new technologies to minimize the use of urea and phosphates. In 2011, we completed an assessment of changes we're considering to make manufacturing our biotechnology medicines more environmentally friendly and efficient.

Our Small Molecule Process and Product Development group has made significant improvements for selected development molecules in reducing waste and enhancing process safety and robustness through green chemistry. Scientists are using e-notebooks, collaboration tools, and solvent-selection guides to make improvements that are more environmentally responsible and efficient for early research and clinical development.

### **Green Building**

Through our Sustainable Design and Construction program, we build features into facilities or retool systems on a case-by-case basis to decrease energy and water use. We've adapted efficient practices to best fit our business, often going above and beyond industry green standards. This program provides guidelines to ensure not only that design, construction, and installation are environmentally

friendly and efficient but also that buildings can continue being efficient as they age.

In 2011, we completed an extensive renovation of an office building on our Thousand Oaks, California, campus, designed to achieve Leadership in Energy and Environmental Design (LEED) Gold status. The project concentrates all the knowledge we've compiled through our Sustainable Design and Construction program in one project. The building—a pilot project that may set a new standard for the Company—combines green building techniques with modern workspace design and technology.

### **Green Packaging**

We are moving forward with plans and programs to reduce the environmental impact of our primary and secondary product packaging.

In 2011, we developed a Green Packaging Assessment Process that evaluates the sustainability of new packaging in the design phase. For existing packaging, we created a plan, for execution in 2012, to include recycling logos on paperboard product cartons that would encourage end users to send this secondary packaging to recycling after product use. In the area of primary packaging, we launched a Sharps Mail-Back program for patients using Enbrel® (etanercept). Through the program, injection materials (sharps) are ultimately converted into a new product, which is used in various industrial applications and kept out of landfills.

# Performance



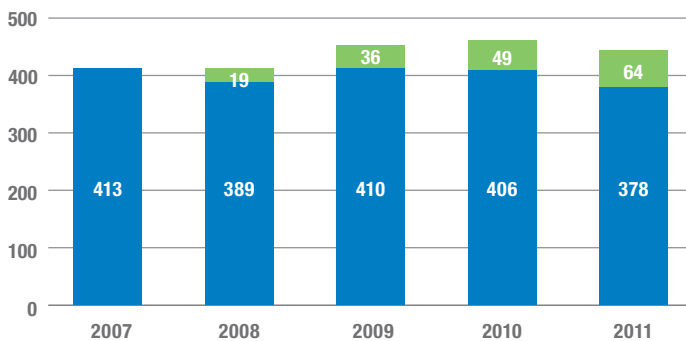
## Conserving Resources

Energy conservation is an important activity for the health of the environment and our Company. Energy conservation also has a direct impact on the amount of carbon dioxide (CO<sub>2</sub>) we emit through operations. These are areas where we've made an active effort to gather the knowledge we've gained and share it across our facilities' networks. In 2011, projects and initiatives we've executed both to limit our environmental impact and to achieve our targets resulted in energy savings of approximately 181,000 gigajoules and a CO<sub>2</sub> reduction of 15,000 metric tons (MT).

Our improvement target for the fuel efficiency of our U.S. sales fleet has driven our approach to fleet management over the years. We've steadily expanded fuel-efficient-vehicle choices available for mobile staff, rotating less-fuel-efficient vehicles out of the fleet for more-efficient options that achieve 23 miles or more per gallon.

## Carbon Dioxide

2007–2011 CO<sub>2</sub> Emissions and CO<sub>2</sub> Emissions Avoided\* Through Conservation Efforts (1,000 MT)

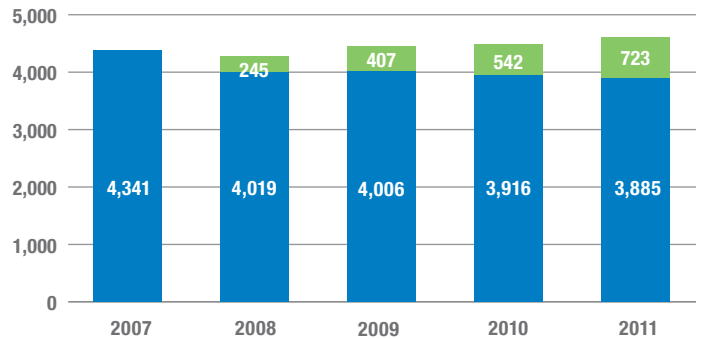


■ Total CO<sub>2</sub> Emissions ■ CO<sub>2</sub> Emissions Avoided\* Through Conservation Efforts

\*Value represents year-over-year, cumulative avoidance.

## Energy

2007–2010 Energy Use and Energy Use Avoided\* Through Conservation Efforts (1,000 GJ)

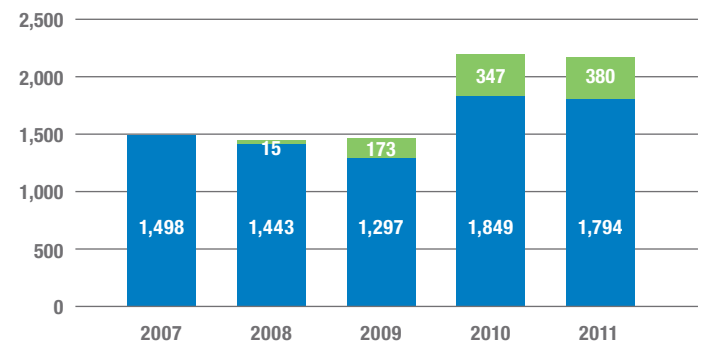


■ Energy Use ■ Energy Use Avoided\* Through Conservation Efforts

\*Value represents year-over-year, cumulative avoidance.

## Fuel Efficiency

2007–2011 U.S. Fleet Fuel Use and Fuel Use Avoided\* Through Conservation (Per 1,000 Gal)\*



■ Fuel Used ■ Fuel Use Avoided Through Conservation Efforts

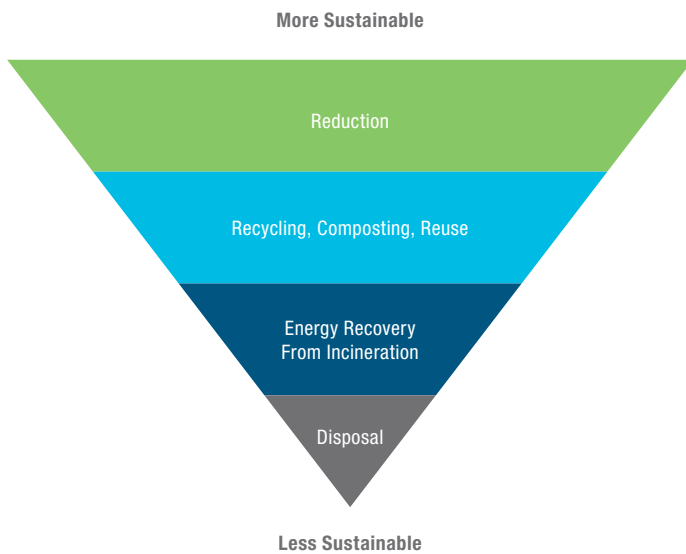
\*Chart represents annual avoidance.

# Performance

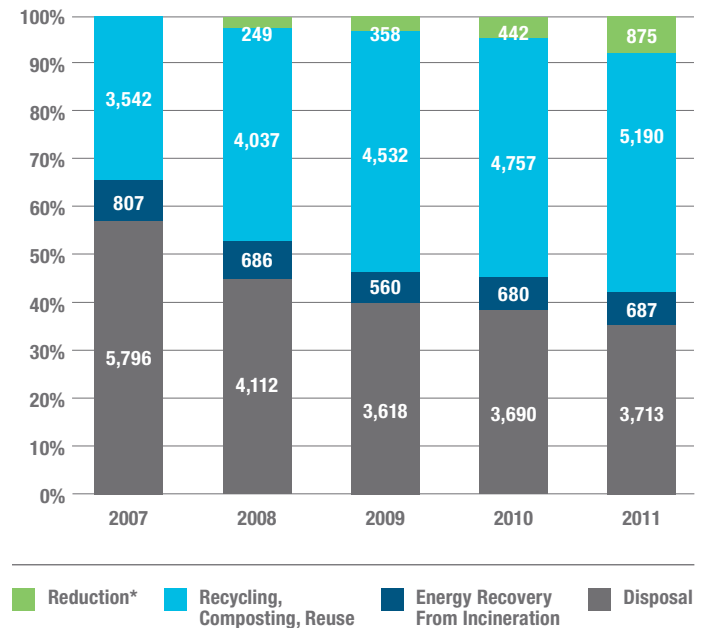


## Waste

### The Waste Hierarchy as a Model for Our Waste-Reduction Goals

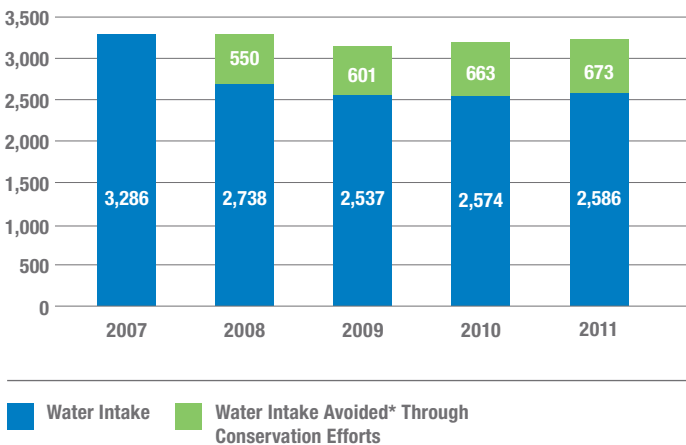


### Routine Waste Chart 2007–2011 by Waste Hierarchy (MT)



## Water

### 2007–2011 Water Intake and Intake Avoided\* Through Conservation Efforts (1,000 m³)



\*Value represents year-over-year, cumulative avoidance.

## Reducing Waste, Saving Water

The commitment of our staff members to the recycling programs we've implemented has been impressive. By year-end 2011, we had exceeded our 2012 target for recycling by 50 percent. We've identified a multitude of ways to recycle, including composting landscape, food, and disposable food-service waste; sending lab plastics and other hard-to-recycle items like Styrofoam to be converted to new items; and reusing equipment and office supplies on-site. With this success as a foundation, we are actively shifting to the practice of reducing the waste we generate in the first place.

Amgen continuously strives to conserve water, a vital component of our medicines. Water conservation solutions we've implemented include a wastewater treatment plant in Puerto Rico that enabled approximately 318,000 cubic meters of treated wastewater to be recycled on-site in 2011 and low-water landscaping and smart-irrigation controls at a variety of facilities.

*Amgen makes an impact in the communities in which we operate through direct volunteer work by staff members and through financial support from the Amgen Foundation. We are a good neighbor in the communities where we work and live.*

## Volunteering and Giving



*Left, far right: We removed more than two metric tons of trash during the 2011 International Coastal Cleanup.*

*Center: The Amgen Foundation supports environmental education and habitat conservation.*

### **Volunteering for the Environment**

Working in a life sciences organization, many Amgen staff members share a deep appreciation for the natural world and enthusiastically volunteer for a range of activities to help protect and sustain the environment. In 2011, staff members from California, Canada, Puerto Rico, Rhode Island, and Washington participated in International Coastal Cleanup (ICC) events as part of a worldwide effort to clear debris from coastal and inland waterways. Staff members removed more than two metric tons (4,400 pounds) of debris in 2011 — quadruple the amount from Amgen's efforts in the 2010 ICC. Individual facilities participated in many other cleanup and restoration events throughout the year such as Save the Bay in Rhode Island, Anacapa Island plant restoration events in the California Channel Islands, and a cleanup of the Charles River watershed in Massachusetts. Amgen has recognized the passion and commitment of staff environmental volunteers through Volunteer of the Year and Environmental Champions awards programs.

### **The Amgen Foundation Supports the Environment**

The Amgen Foundation seeks to advance science education, improve quality of care and access for patients, and support resources that create sound communities where Amgen staff members live and work.

The Foundation has funded a variety of environmental organizations for several years, but in 2011 a focus was placed on water quality, a key resource for Amgen's business. The Foundation gave grants to the following nonprofit organizations in the region surrounding the Thousand Oaks, California, headquarters: Heal the Bay, for education and outreach projects; the Surfrider Foundation, for grassroots environmental education efforts; Santa Barbara Channel Keeper, for the Ventura River Watershed Protection program; and The Nature Conservancy, for protection and restoration of Santa Cruz Island.

Additionally, the Amgen Foundation funded other environmentally oriented nonprofits such as NatureBridge, for environmental education programming; the National Wildlife Federation's Eco-Schools USA program for expanding the program's presence in K–12 schools in Ventura County, California; and the Washington Trails Association's Youth Trail Stewardship program, for trail maintenance by youth volunteers.

See the Amgen Foundation 2011 Charitable Contributions Report for more information on the wide variety of nonprofits the Foundation supports in communities across the United States, Puerto Rico, and Europe.





“Environmental sustainability makes good business sense; it’s an important investment in our future.”

— Kevin Sharer, Chairman and CEO, Amgen  
Robert Bradway, President and COO, Amgen



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For more information about environmental sustainability at Amgen, visit [environment.amgen.com](http://environment.amgen.com).  
We welcome your feedback at [esfeedback@amgen.com](mailto:esfeedback@amgen.com).

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