

WASTE

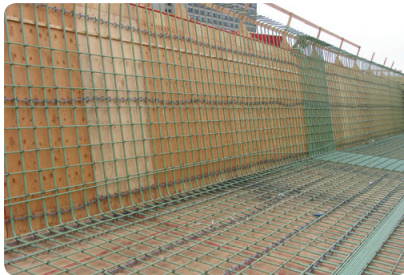
Managing our trash and wastewater—the water we use for washing, flushing and manufacturing—emitted nearly 2.3 million tons of greenhouse gases in 2010. While our waste-handling emissions have risen, towns and businesses are working to decrease pollution, turning waste into opportunity. Most waste-related emissions are from methane-producing landfills. Minnesotans can help by reducing their waste and reusing, recycling and composting more. Reducing electricity we use to manage our waste and wastewater is also critical.

WHAT'S HAPPENING?

Reduce, Reuse, Recycle and Compost—And Boost Our Economy

An effective way to reduce greenhouse gases from landfills is to put less in them. Reducing what we consume; recycling and composting more of what we throw away; and reusing items or repairing and renting what we need (rather than buying new) can significantly reduce emissions. These practices also provide tens of thousands of jobs and billions of dollars in economic activity in Minnesota.

Recycle More, Add Jobs



From 2004 to 2011, nearly 6,200 direct jobs were created by Minnesota recycling manufacturers—companies that make products from recycled materials and their suppliers. **Gerdau Ameristeel**, South St. Paul, is one of 200 Minnesota recycling manufacturers that prefer locally sourced recyclables for their products. The company uses steel cans from your curbside collection to make steel rebar, 7 million pounds of which was used to help rebuild the 35W bridge.

Lost Opportunity

Minnesota recycling programs collected material worth almost \$700 million in 2010, yet Minnesotans discarded 1 million tons of recyclables worth \$210 million and spent \$200 million to dispose of it.

Composting Together



Full Circle Organics Recycling Cooperative and Dodge County collect food waste from grocery stores and restaurants, combining it with yard waste to produce garden and landscape compost. In a two-year pilot, **Erdmans County Market** in Kasson diverted 56 tons of food trimmings and waste. That's 28 tons of rich soil for gardeners and landscapers.

Rethinking Curbside Recycling



Since switching to single-sort recycling in 2013, **Minneapolis** has experienced a 33% increase in the volume of recyclables collected in about one year. **Winona County** has added curbside collection countywide, both single-sort and expanded-plastic collection. Ninety-six percent of Winona County residents are participating in the new program. Cities and counties with single-sort recycling can maintain participation at these levels with continuous and regular education.



More than 70% of landfill waste could be recycled or composted, conserving resources and preserving landfill capacity.

LOOKING AHEAD

“Doing more of everything”—from recycling to composting in any town, home or business—will greatly reduce our emissions from waste. By 2030, seven metro-area counties hope to achieve aggressive waste-related goals. To that end, they are now implementing a number of activities, such as assisting businesses in expanding what they reuse and recycle and offering fix-it clinics for anyone wanting to repair small appliances, electronics and more. At a state level, an adjustment to Minnesota’s composting rules aims to increase opportunities for people to compost at home. Certain composting facilities will face fewer regulatory requirements when accepting organics, such as food and yard debris, separated from other waste.

By the Numbers

CAPTURING POLLUTION



2.1 Million Tons GHGs Captured

Over the last decade, Minnesota has steadily captured and controlled more methane emissions from solid-waste landfills. In 2011, about 2.1 million tons of greenhouse gas emissions were captured, a roughly 50% increase from 2000.

ECONOMIC IMPACT



46,000 Full-Time Jobs

More than 46,000 full-time workers are employed by Minnesota businesses that deal in rented, repaired or reused goods. The businesses generate \$1 billion in wages and \$4 billion in sales annually.



\$8.5 Billion in Economic Activity

Minnesota's value-added recycling manufacturers generated approximately \$8.5 billion in total economic activity, including sales, compensation and tax revenue, and supported nearly 37,000 jobs in 2011.

Landfill Gas—Converting a Problem into Power

As landfill-waste decomposes, it produces methane, a greenhouse gas with global warming potential more than 20 times as potent as carbon dioxide. To tackle this problem, some Minnesota landfills capture and convert methane into electricity, heat or fuel for equipment. Besides decreasing methane gas in the atmosphere, the process produces renewable energy and avoids carbon emissions from fossil fuels.

The **Crow Wing County Landfill** in Brainerd collects its landfill gas and uses a portion of it to heat a maintenance building, replacing natural gas. The remaining landfill gas is flared, or destroyed.

Minnesota has 21 landfills in operation, nine of which employ gas collection and recovery systems. Statewide, 109 closed landfills (full and monitored for pollution) participate in the voluntary Closed Landfill Program. A number of these landfills captured and prevented a combined 28.4 million pounds of methane gas from entering the atmosphere in 2012.

Using Less Electricity at Wastewater Treatment Plants

Pumps, motors and other equipment that clean and recirculate water used in our homes and workplaces run around the clock. That's why water and wastewater facilities are among the largest users of a community's energy—and the largest contributors to its emissions. Electricity accounts for 25% to 40% of a wastewater utility's operating budget. Cities reduce their plants' energy use by conserving water, which lessens the amount of water that must be treated; investing in new, more efficient equipment; and switching to renewable energy.

Metropolitan Council Environmental Services saves \$600,000 annually after switching Blue Lake, Minnesota's fourth-largest wastewater treatment plant, from natural gas to renewable "biogas" generated by anaerobic digesters. The Shakopee plant produces biogas equivalent to the natural gas usage of nearly 820 Minnesota homes. Additionally, 10% of Blue Lake's power will come from on-site solar panels in the near future.



The Blue Lake wastewater treatment plant treats an average of 29 million gallons of wastewater per day.



Think before you open your garbage can. Most materials can be recycled or composted instead.

Learn what you can recycle and compost in your county.

Start a backyard compost pile for food scraps, yard trimmings and other organic waste.

Buy used goods, not new, when possible.

DID YOU KNOW?

Habitat for Humanity ReStores help reduce landfill-waste by offering the public a way to donate and buy gently-used building materials, appliances and furniture. Twelve Minnesota stores sell goods, using proceeds to build nearby homes.

