

Washington residents and businesses separated for recycling or otherwise kept out of landfills about 52 percent of the construction and demolition (C&D) debris generated in our state in 2013. Recycling these materials does more than just preventing waste – it also lessens [greenhouse gas emissions](#), cuts pollution, conserves natural resources and creates jobs.

What does C&D debris include?

- Materials from building, renovating, repairing, and demolishing houses, and other structures.
- Materials from infrastructure such as roads, bridges, piers, and dams.

Examples of C&D debris materials include concrete, asphalt, wood, drywall, fixtures, roofing, lumber, wiring, pipe, cardboard, carpet and carpet pad, and land-clearing debris. These materials made up about 39 percent of all waste produced in Washington in 2013. With the right programs and infrastructure in place, we could divert most C&D debris from landfills and reuse it for new building products or use it as fuel to produce electricity.

Recycling C&D debris saves energy and reduces greenhouse gas emissions

Using recycled C&D debris to make new building products or to burn as fuel saves (or helps to produce) energy. Collecting, processing, and transporting recycled materials almost always uses less energy than extracting, refining, transporting, and processing raw materials. And less energy use means fewer greenhouse gas emissions.

The 3.4 million tons of C&D debris diverted from landfills in Washington in 2013:

- Saved energy equivalent to 62 million gallons of gasoline or about 7.7 trillion British thermal units (BTUs). This is enough energy to power about 70,000 homes for a year –every single home in Benton County.
- Prevented more than 69,000 tons of greenhouse gas emissions – about 20 pounds per person in our state. This is similar to keeping about 48,000 cars off the road each year.

Energy & Greenhouse Gas Savings from C&D Debris Recycling/ Diversion in Washington (2013)

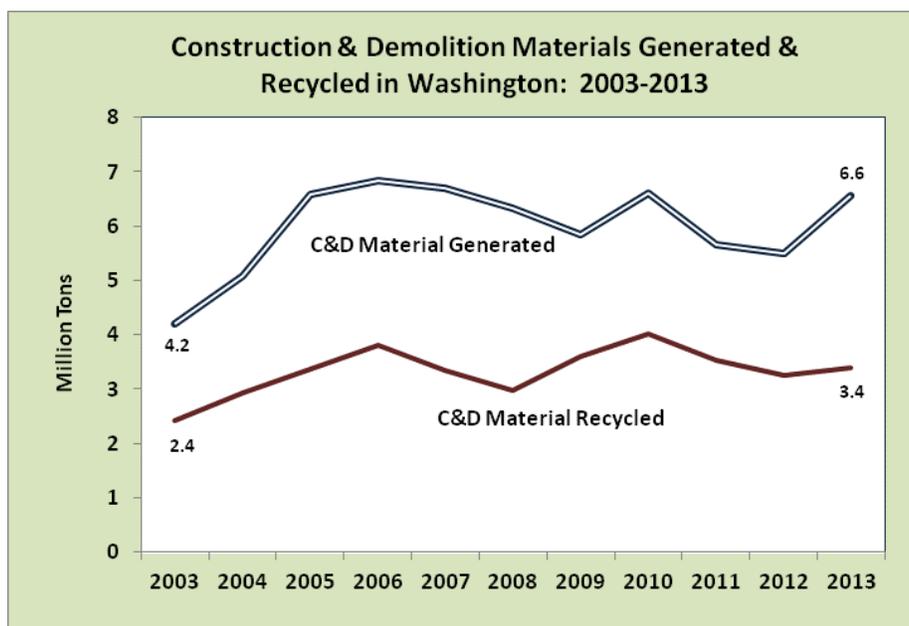
Recycled/Diverted Material	Tons Recycled/Diverted	BTUs Saved (millions)	Greenhouse Gas Avoided (MTCE)*
Wood	534,576	3,148,650	26,834
Landclearing Debris	227,729	252,153	-31,213
Carpet	4,341	96,095	2,843
Asphalt & Concrete	2,165,990	3,875,269	72,718
Drywall	110,228	354,082	-1,971
Total	3,042,864	7,726,248	69,210

*MTCE = Metric Tons Carbon Equivalent; a negative number indicates the emissions savings do not outweigh the emissions associated with recycling this material – landfilling results in even greater emissions.

Recycling C&D debris conserves natural resources and creates green jobs

Recycling C&D debris reduces the need for mining and logging, along with their harmful environmental effects. Supplying industry with recycled materials instead of virgin resources from forests and mines conserves these scarce resources and the habitat they provide. Using recycled materials also creates jobs in the green economy, providing employment that promotes environmental protection and energy independence.

In 2013, Washington recycling and diversion programs collected 3.4 million tons of C&D debris to supply industry with these valuable commodities to manufacture into new products.



More information

Progress Report indicator for Construction and Demolition Debris:

<http://www.ecy.wa.gov/beyondwaste/bwprogGBCandD.html>.

Contact

Gretchen Newman 360-407-6097 or gretchen.newman@ecy.wa.gov.

Special accommodations

If you need this document in a format for the visually impaired, call the Waste 2 Resources program at (360) 407-6900.

Persons with hearing loss, call 711 for Washington Relay Service. Persons with a speech disability, call 877-833-6341.

Sources:

- Washington Department of Ecology's 2013 Recycling Survey: <http://www.ecy.wa.gov/programs/swfa/solidwastedata/>.
- EPA Waste Reduction Model (WaRM): http://epa.gov/climatechange/wycd/waste/calculators/WaRM_home.html. Savings are relative to energy required and GHGs emitted during production using virgin materials; includes recycling, composting, and burning for energy; emissions in metric tons carbon equivalent (MTCE).
- U.S. Census Bureau: State and County QuickFacts: <http://quickfacts.census.gov/qfd/states/53/53067.html>.