

Using recycled instead of raw materials to make new products typically uses less energy – and less energy means fewer [greenhouse gas \(GHG\) emissions](#). It takes significantly less energy (and creates less water and air pollution) to collect, process, and transport materials such as cans, bottles, and paper than it takes to mine, harvest, refine, transport, and process raw materials such as oil, ore, and lumber.

Recycling metals, paper, organic materials and construction and demolition (C&D) debris greatly reduces GHG emissions. Current recycling and diversion programs capture more than 60 percent of these materials from disposal in landfills. The other 40 percent could be recycled for greater emissions savings.

### **Metals: Includes appliances, rebar, auto parts/hulks, aluminum cans, steel [tin] cans, and more**

- Recycling metals provides the greatest amount of avoided GHGs (see page 2).
- In 2013, residents and businesses separated for recycling 85 percent of the discarded metals in Washington.
- The 1.6 million tons of metals diverted from landfills in Washington in 2013 prevented more than 1.9 million tons of GHG emissions from occurring – about 550 pounds per person. This is similar to keeping about 1.5 million cars off the road each year.

### **Paper: Includes cardboard, cartons, office paper, newspaper, and more**

- In 2013, residents and businesses separated for recycling 55 percent of the discarded paper in Washington.
- We can divert paper from landfills, reuse it, make it into new products, or use it as fuel.
- The 1 million tons of paper collected for recycling in Washington in 2013 prevented about 970,000 tons of GHG emissions – almost 280 pounds per person. This is similar to keeping about 750,000 cars off the road each year.

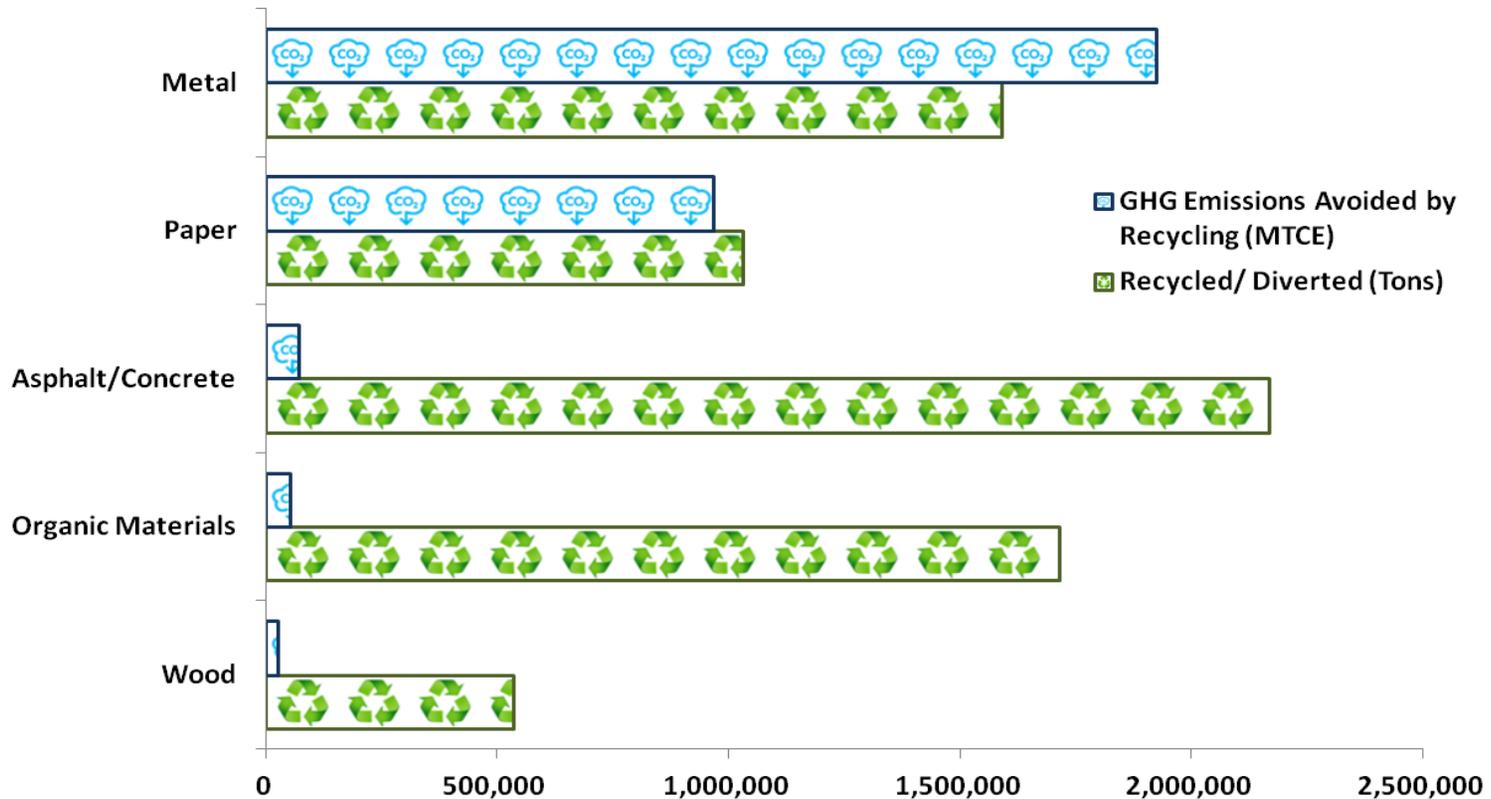
### **C&D Debris: Includes asphalt/concrete, wood, and more**

- In 2013, residents and businesses separated for recycling and otherwise diverted from landfills about 52 percent of the C&D debris in Washington.
- We can divert most C&D debris from landfills, reuse it, make it into new building products, or use it as fuel.
- The 2.8 million tons of C&D debris diverted from landfills in Washington in 2013 prevented over 100,000 tons of GHG emissions – about 29 pounds per person. This is similar to keeping 72,000 cars off the road each year.

### **Organic Materials: Includes yard and landclearing debris, food scraps, and more**

- In 2013, residents and businesses collected for recycling and otherwise diverted from landfills about 58 percent of the discarded organic materials in Washington.
- We can divert most organic materials from landfills and reuse it, compost it, or use it as fuel.
- The 1.7 million tons of organic materials collected for recycling in Washington in 2013 prevented about 52,000 tons of GHG emissions – about 15 pounds per person.

## Recycled/Diverted Materials and GHG Emissions Savings in Washington (2013)



Sources:

- WA 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](http://epa.gov/climatechange/wycd/waste/calculators/WaRM_home.html). Includes recycling, composting, and burning for energy. Savings are relative to energy required and GHGs emitted during production of products using virgin materials. Emissions savings in metric tons carbon equivalents (MTCE).
- U.S. Census Bureau: State and County QuickFacts: <http://quickfacts.census.gov/qfd/states/53/53067.html>.
- 2009 Washington Statewide Waste Characterization Study: <https://fortress.wa.gov/ecy/publications/summarypages/1007023.html>.

**Special accommodations:**

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