

# CU Denver Block Party

## 8/23/2018

GOING FOR ZERO WASTE...

## The Benefits of Your Recycling and Composting Efforts

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### RESOURCES IMPACT

#### YOUR EVENT RECOVERED:

- **281 pounds of materials** through recycling and composting
- **83% of all your discards!**



### ENERGY & CLIMATE IMPACTS

#### YOUR EVENT SAVED:

- **11 gallons of gasoline** in energy savings
- **610 pounds of greenhouse gas emissions**



### COMMUNITY HEALTH IMPACTS

#### YOUR EVENT AVOIDED:

- **1.7 pounds of air pollution**
- **0.5 pounds of water pollution**
- **0.6 pounds of toxic herbicides** that threaten plants, wildlife, humans and our food systems
- **172 pounds of substances that threaten human health,** including carcinogens, particulate matter and volatile organic compounds



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**Thanks for working toward Zero Waste!**

## UNDERSTANDING YOUR ENVIRONMENTAL BENEFITS CALCULATOR RESULTS

By going for Zero Waste, your event produces a myriad of environmental and social benefits.

**A HEALTHY ENVIRONMENT STARTS WITH GREEN PRODUCT CREATION.** Most products are made from virgin or raw natural resources extracted from the earth. Cutting down trees, drilling for oil, or mining for coal or precious metals is the first step in manufacturing everyday items that are made of non-recycled paper, plastic, metal, glass, etc. Because what comes out of the ground is far from the product we see on store shelves, these raw resources are transported, often globally, to a manufacturer who uses mechanical and chemical means to turn that tree into paper, that bauxite into aluminum, that petroleum into plastic, and so on. To do so requires vast amounts of primarily fossil fuel energy, releases toxic air and water pollution, and creates huge swathes of waste. Industry consumes more energy than any other sector, representing more than 50% of worldwide energy consumption.<sup>i</sup>

Virgin resource extraction and manufacturing is excessively wasteful. When we buy, consume and discard products, we are only seeing the tail end of this long production process. *For every one ton of trash you produce, the equivalent of 71 tons of manufacturing, mining, oil and gas exploration, agricultural, coal combustion and other discards are produced!*<sup>ii</sup>

Resource extraction and manufacturing are also dangerous to humans and the environment. The fossil fuel energy and the chemicals used in and emitted by manufacturing release greenhouse gas emissions, cancer-causing substances, and air and water pollutants. Particulate matter, carcinogens and toxic chemicals endanger human health through increased cancer risks, asthma rates and risks of disease. Water pollution threatens human health, agriculture, and ecosystems. Alternatively, by conserving natural resources, we protect the ecosystems they're an integral part of, which also preserves species' habitat and biodiversity, avoids soil erosion and water pollution, keeps CO<sub>2</sub> out of the atmosphere, and maintains the intrinsic value of the natural landscape.

**RECYCLING SAVES RESOURCES AND ENERGY.** Recycling materials creates a supply of resources for manufacturers to use to make new products so they don't have to extract and process virgin resources. These recyclables still need some mechanical and chemical processing to make new products and this does use energy and create some pollution, but it is dramatically less than processing virgin materials. For example, making copy paper from 100% recycled content, instead of from 100% virgin forest fibers, reduces total energy consumption by 44%, net greenhouse gas emissions by 38%, particulate emissions by 41%, wastewater by 50%, solid waste by 49% and wood use by 100%.<sup>iii</sup> Buying items made with post-consumer recycled content helps support these recycling markets and keeps the recycling loop in motion.

**COMPOSTING RESTORES SOIL AND DECREASES GREENHOUSE GASES.** The process of composting yard debris, food scraps, and paper creates a nutrient-rich soil amendment called compost. Applying compost to soils increases long-term soil productivity, reduces irrigation needs, replaces the use of petroleum-based synthetic fertilizers, suppresses plant diseases and pests, and protects against erosion and drought. These benefits translate into numerous health and environmental savings. Applying compost stores carbon in the soil, reducing greenhouse gas concentrations. Decreasing the use of synthetic fertilizers and pesticides through compost reduces the energy used and greenhouse gases emitted during their production. The production and use of some synthetic fertilizers and pesticides releases hazardous air pollutants, including known cancer-causing substances, so using compost instead protects human health and reduces environmental damage. Compost can also reduce erosion and save water. Composting is critical to replenishing our depleted soils and supporting sustainable agriculture.

**RECYCLING AND COMPOSTING AVOID DISPOSAL IMPACTS.** The majority of the benefits from recycling come from replacing the virgin materials used in the manufacturing process, and the benefits of composting come from better treatment of our soils, carbon sequestration and avoided pesticide and fertilizer use. In addition to these benefits, keeping materials out of landfills also prevents negative environmental and health impacts. Landfills are a primary source of human-caused methane, a greenhouse gas 72 times more potent than CO<sub>2</sub> over the short term. Landfill gas also contains volatile organic compounds (VOC), hazardous air pollutants, and odorous compounds that adversely affect public health and the environment. Below ground, landfills are a long-term threat to local water supplies, particularly groundwater, as the EPA has acknowledged the thin plastic lining under modern landfills will eventually leak. These environmental and human health dangers are also a future financial burden upon local governments as each landfill will cost tens to hundreds of thousands of dollars to clean up and maintain for decades, if not centuries, to come.

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<sup>i</sup> Energy Information Administration, 2009. International Energy Consumption, Economic Growth and Energy Intensity Analysis to 2030. Available at <http://www.eia.doe.gov/oiaf/ieo/pdf/world.pdf>.

<sup>ii</sup> Institute for Local Self-Reliance and GrassRoots Recycling Network, 2000. Wasting and Recycling in the U.S. p.13. Based on data reported in Office of Technology Assessment, Managing Industrial Solid Wastes from manufacturing, mining, oil, and gas production, and utility coal combustion (OTA-BP-O-82), Feb. 1992, p.7, 10.

<sup>iii</sup> Environmental Paper Network, 2007. The State of the Paper Industry. Available at <http://www.environmentalpaper.org/stateofthepaperindustry/>.