



Cash from Trash:

A Recycling Revolution



By Dale-Marie Herring

CHOOSING STEWARDSHIP

After drinking a cold, canned beverage, a simple choice can be made: throw the empty in the trash can--or the recycle bin. The trash can options sends the aluminum container to the landfill where it will sit for more than 300 years while fresh aluminum ore is mined and processed to meet the market demand for more cans.

Recycling the drink container could allow the aluminum to become a fresh can again in six weeks. The process would only use 5% of the energy that it took to create the original can.

Choosing to recycle not just cans, but all recyclables, allows the raw materials in many common products to have a longer life cycle than the landfill would give them. Recycling is part of the lifestyle of stewardship and shows awareness of the true value of what we use.

Americans throw away enough aluminum to rebuild our entire commercial fleet of airplanes every 3 months.

Environmental Defense Fund

THE LIFECYCLE OF AN ALUMINUM CAN

A soda can is made from aluminum ore, or bauxite. Mining bauxite involves stripping the top surface of the land—a process that destroys more surface area than mining any other ore. A toxic byproduct of the mining process, known as red mud presents serious environmental disposal issues.

The mined alumina is then sent to a smelter. Smelting is extremely energy intensive. The process also produces Carbon Dioxide and perfluorocarbons (PFCs). PFCs are a harmful greenhouse gases.

Aluminum slabs from the smelter are flattened then shaped into cans that get shipped to a facility, which fills them with our liquid beverage. (The can costs more than the liquid.) Then, the product is transported to vendors across the country. Consumers can choose to recycle or throw away their can when it is empty.

LIFE BEYOND THE BLUE RECYCLING BIN

It is hard to imagine the motley contents of your blue recycle bin transforming into useful, money-making products. Yet, Debbie Lyons, Director of Salt Lake City's recycling efforts says, "The acceptable items our residents are placing in their blue recycling bins get recycled and make a difference."

HOW IT ALL GETS SORTED OUT

All of the materials from Salt Lake City's blue recycle bins are delivered to [Rocky Mountain Recycling](#). After workers sort the initial haul, state-of-the-art machinery takes over. The brand new, 7-million-dollar, single-stream sort system takes all of the recyclables from one big pile, and sends them into separate piles of:

- Paper
- Cardboard
- Aluminum
- Steel food cans
- PET Plastic (#1, mostly soda and water bottles)
- HDPE Natural Plastic (milk jugs)
- HDPE Colored Plastic (detergent bottles)
- Mixed Plastic (#3-7)

Each pile of recyclables is condensed into bales, then shipped, by rail or by truck, to various end-markets that will reprocess it back into: paper, cardboard, aluminum, steel, and plastic pellets that can be molded into new plastic items.

The material that isn't accepted in this program is placed aside and taken to the landfill.

"Often 12% or even as high as 35% of every 6-ton load has to be thrown away because it is contaminated."



GOOD CHOICES GONE TO WASTE

Thoughtless acts can contaminate the good efforts of others. Clothes, glass, tires and even kitchen garbage often spill out of recycle collection loads.

Lyons says, "I think some people throw unacceptable items like glass into the blue bins hoping that it will get recycled, but it won't. Other people may find there is no room left in their trash can, so they use the recycle bin."

The thoughtless toss can completely compromise the best benefits of a recycle program and the added human labor to remove inappropriate items is costly.

[Answers to Frequently Asked Recycling Questions](#)



Larry Gibbons, Business Development Manager for Rocky Mountain Recycling explains, “One pound of contamination ruins ten pounds of recycling. That means that just 10 oz of liquid can ruin 7 lbs. of paper. It sure is disappointing seeing the good recyclables thrown away.”

In addition, the items that could have been recycled at a different facility, such as the now very filthy clothes or glass bottles, are plucked and sent by rail or truck to the landfill.

Why Not Glass?

Glass, in particular, is a tricky contaminate. The broken shards can cut skin. They also can pass into the recycle process and become mixed with paper fibers and other end products. The quality of the end product is compromised and the efforts of the many who recycled properly are foiled.



CONTAMINATION RATES

Gibbons explains, “When customers buy our end product, they want to know they are getting a good, clean product.”

One way contamination rates are measured is by taking a full truck load

of recyclables, sorting it, and figuring the ratio of contamination. “Often 12 percent, or as high as 35 percent, of a 6 ton load has to be thrown away because it is contaminated,” says Gibbons.

Oddest Items Found in a Recycle Bin

Boa constrictor, wallets, guns, ammunition, dead animals, food, tires



CITY GOALS

Overall, city residents are embracing the recycling program with over 83% participation. We are currently diverting 14% of residential waste through this program. According to the EPA, our recycling program could potentially divert 40-50% of our waste. The city’s goal is to increase awareness about the recycling program, which will hopefully result in more acceptable materials being recycled, and decrease the amount of unacceptable items placed in the bins.