GARBAGE IN, GARBAGE OUT

When this book was conceived, I intended to write about our *64-ton* lifetime trash legacy, not the 102 tons it turns out to be. This original, smaller calculation was based on the widely accepted and official data point produced by the U.S. Environmental Protection Agency, which asserts that the average American produced 4.5 pounds of trash a day. When I discovered midway through this project that these numbers were wrong, that Americans were actually churning out an average of 7.1 pounds a day and sending twice as much trash

to the landfill as we were being led to believe, it did more than change the central metaphor of a book about garbage.

It meant our trash problem—our trash addiction—already the biggest on the planet, is way, way worse than we've been told. It also meant our solutions have been much more paltry than most people understand. We've barely put a dent in our collective garbage mountain, and what we have accomplished—moderately increased recycling compared to decades past—is more about rearranging the deck chairs than changing the course of a ship headed for disaster.

It would be easy to focus on the implications of these flawed numbers as a scandal or a crisis—or as evidence that there is little that can be done about those hundreds of millions of tons of trash getting shuffled to the curb and hauled off for burial. It would be so tempting to throw up our hands, to say it's just too big to confront, to surrender to trashy inertia. Really, what can any one of us do about an ocean, a mountain, a 102-ton leviathan of trash?

In a word: plenty.

The discovery that even our top garbologists can't keep track of our trash, that they are as clueless as the rest of us, is best viewed not as a crisis, but as an invitation and an opportunity—an opportunity to take a step back and consider a new normal. What better time than today, a time of economic hardship, to reconsider our wastefulness, to absorb the lessons of MIT trash trackers and ocean plastic netters and a family of four in Marin County, and then find our way back?

Think about it. We are wasting so much stuff every day that trash has become a geographic feature—particles transforming oceans, garbage mountains dominating landscapes, a landfill visible even from space. How can that be acceptable? How can that have become normal?

Or look closer to home and see just how our daily choices as consumers in a disposable economy have made our everyday lives monuments to waste. Look in your bathroom: The shampoo, body wash, cosmetics, shaving cream, deodorant and health products you buy come in packages that cost us three times as much as the manufacturing cost of the products they hold. In other words, the hair conditioner bottle destined for the trash is actually more costly and valuable than the hair conditioner it contains. And these disposable things are designed to have a few days' useful service, then survive for thousands of years as potentially harmful and definitely costly trash. Why do we tolerate that?

In 2011, Americans spent $11 billion on a record 9.1 billion gallons of bottled water of equal or lesser quality than tap water that costs consumers ten thousand times less. Twenty-five to 50 percent of that expensive bottled water turns out to be mere tap water put in a plastic bottle with a fancy label slapped on, not to mention a bigger markup than any other product this side of the Hope Diamond. We throw out 60 million water bottles a day, in a country where the high quality and safety of inexpensive tap water is the envy of most countries in the world. One full day's worth of America's total oil consumption—about 18 million barrels—is spent hauling that bottled water around. Why?

The waste picture for milk is even worse than bottled water: Thirty percent of the milk produced in America is thrown away because of inefficiencies that let it expire or spoil before it can nourish anyone. All that energy, all that shipping, all that cattle feed, all that refrigeration, all that effort—nearly a third of it is wasted, thrown away, trashed. The rest of our food supply suffers similar losses—in a world where hunger is a growing, deadly problem, at least a quarter of the total American food supply is fated to become

garbage. And we're paying for that, every day—in higher food prices, high utility bills, pollution and debt.

We accept products, from phones to stereos to televisions, designed to be disposed of rather than repaired or upgraded. We have transformed soda from a treat to a staple, though it has negative nutritional value and wastes colossal amounts of plastic, petroleum and water while fueling an unprecedented wave of child and adult obesity. The added bonus: Recent research has found that a common plastic chemical, BPA, that can leach from plastic beverage bottles and is found in most of our systems, may make the human body further prone to obesity. We drive cars so primitive in their design that they waste four-fifths of the energy produced by burning gas. Our power plants use only a third of the energy produced by burning coal, with the rest wasted, quite literally going up in smoke. Did you know that the average cable TV box plugged into your wall, a device that never fully shuts down even when your television is off, uses more electrical power than most refrigerators? Why does your cable company accept such a ridiculously wasteful device from the manufacturer? Why does your city council that contracts with the cable company accept such a system? Why do you accept it, since you're the one who has to pay the waste-bloated utility bill?

It seems such waste has a constituency of its own. Consider junk mail. Half the U.S. mail is now junk—or, to use the postal service's innocuous-sounding term, "direct mail." Americans received 85 billion pieces of the unwanted stuff in 2011. Those flyers and credit card offers and official-looking envelopes offering adjustable rate mortgages from The Loan Doctor collectively weigh in at 4 million tons—about one in every 100 pounds of trash headed to the landfill.

Junk mail is generally considered an unwanted annoyance, harder to shake than a cold. Yet taxpayers subsidize and encourage it without even realizing because junk mailers receive a postal rate far lower than a first-class stamp. Then the junk mailers receive a second subsidy because they are excused from cleaning up the tidal wave of waste they create. Consumers and taxpayers pick up the tab for that as well. Junk mailers, in short, have double incentives to be wasteful, two big helpings of corporate welfare that no other developed nation tolerates.

Such perverse incentives for waste permeate the economy. Most sanitation systems charge homeowners the same rate for large amounts of trash rolled to the curb as they do for small amounts—one flat fee for all, whether your neighbor makes half the trash you do, or twice as much. But some communities use a "pay as you throw" model: make less waste to be hauled away, use a smaller size bin at the curb, and you pay less each month. Bigger trash bins receive bigger bills because there's more to haul—an eminently fair setup. With that model, an incentive to be wasteful is replaced by an incentive to be thrifty. Give each homeowner a recycling bin and make hauling its contents free regardless of the amount of recyclables inside, and another incentive is born: an economic incentive to sort trash properly (which a surprising number of people resist under the *what's in it for me?* objection to the minor inconvenience of sorting).

According to a slew of EPA studies, pay-as-you-throw towns send an average of 40 percent less waste to landfills than other communities. It's a fairer system, it works, it provides the most beneficial incentives, and it has been proven to reduce garbage volume dramatically—yet fewer than one in five communities in the U.S. do

it. Changing wasteful ways, even when doing so is simple and essentially cost-free, is hard. Inertia and habit and fear of change get in the way.

"MANAGING" WASTE is universally viewed as a positive. Everyone wants clean cities, sidewalks and streets, a healthy, sanitary environment for our kids. But our focus on managing a waste problem by making it appear to disappear has blinded many of us to the reality of how much food, fuel, water and other things of value we waste every day. For most of human history, such waste has been viewed as shameful or worse. Gluttony is, after all, one of the seven deadly sins, and it's not because it's associated with obesity, a threat to an individual's survival, but because it represents overconsumption to the point of wastefulness, a threat to an entire community. Today, however, a gluttony of consumption has become the norm. That postwar marketing ploy of J. Gordon Lippincott, the push for us to throw perfectly good things away and buy new things to replace them so that somebody else can get rich—an idea that goes against our basic instincts and common sense—still holds us in thrall. We are married to a disposable economy dependent on waste.

This really didn't make much sense in times of plenty. It certainly makes no sense today. The challenge for all of us is to find the way back. It's a good time to stop managing waste, and start wasting less.

Which brings us to the coolest thing about trash, and the most heartening thing about our horrifying 102-ton legacy: It is one of the few big societal, economic and environmental problems over which ordinary individuals can exert control. You don't have to fight City Hall to do it. You don't have to organize protests or marches or phone banks or political action committees. As a consumer, as a

homeowner or renter, as a person who eats and wears clothes and drinks water, you can choose to be more or less wasteful. You can choose to save more and spend less, which automatically means you will waste less. You can ban the bag from your own daily life. The smallest of steps can shave a piece from those 102 tons and save money for your household while you're also saving the planet. Bea Johnson sets an amazing example that can be daunting to the rest of us, but remember, it took her family two years to transition to a low-waste lifestyle. Not all their choices are right for other families, nor do they have to be in order to go on a useful trash diet. It can start small, a slow shift to a new normal. Little changes that, if they go viral, will carry big payoffs.

That's my challenge. I'm going to suggest five things anyone can do to be less wasteful. Try them out. Then suggest five of your own. E-mail them to garbology.book@gmail.com or post them on Twitter @EdwardHumes and we'll start a conversation about figuring out the best strategy for making America less trashy and Americans a bit richer in the process.

Here are my five:

1. **Refuse.** Bea Johnson's simple decision to just say no to a lot of stuff is the home run of waste reduction. From unwanted mail-order catalogs to recreational shopping excursions to printed phone bills rather than virtual ones, just refuse them. Say no to those stupid promotional key chains and tchotchkes that come free at conferences and fundraisers. You know it's junk, and accepting it just encourages more. Refuse. Your trash pile will shrink dramatically.

2. **Go Used and Refurbished.** Whether it's a computer, a TV, a car, a book or a coat, used or refurbished goods are always cheaper, are often indistinguishable from new (and many manufacturer-refurbished computers even carry same-as-new warranties), and

their environmental footprint is a fraction of that of new products. You are keeping resources out of the waste stream and saving yourself big bucks, all at the same time.

3. **Stop Buying Bottled Water**. It's a waste and a fraud wherever domestic water supplies are safe, which is virtually everywhere in the U.S. You don't need it. Get a couple of reusable bottles and put tap water in them.

4. **No More Plastic Grocery Bags**. No, this one won't save the world (though it will help the oceans), but Andy Keller's right: Plastic bags are the gateway drug of waste. If you can get that monkey off your back, you'll see how easy it can be to start chipping away other parts of your 102-ton legacy.

5. **Focus on Cost of Ownership**. The disposable economy wants you to think about the cost of things at the checkout stand. That's how we end up with cheapo DVD players that become trash in a year, clothes that fade and wear out after a few washes, and cable boxes that eat more electricity than a fridge. The disposable economy gives us things that are cheap in the short term but costly and wasteful over time. Saving up for purchases of things that are more durable, long-lived, reliable and efficient saves money over time, and radically reduces the waste we produce. And it does something else: The act of saving for something that's really good, something that we really want in our lives for years to come, encourages us to say no to other things we don't really need. It encourages saving instead of spending. And that means far less waste, too.

CUTTING WASTE, be it in government, in business or in the home, always makes sense—economically, environmentally and morally. It is a strategy that always has benefits. Waste is tied to all the big

problems of the day, from climate change to peak oil to high energy costs and rising prices of the raw materials our industries and infrastructure require. Waste-cutting is the secret to sustainability, security and prosperity. That 102-ton legacy doesn't have to be the end of the story. It's in everyone's power to make it the starting point instead.

Send your top five (or two or ten) waste-cutting solutions to garbology.book@gmail.com, or post them on Facebook.com/Garbology, or send them to Twitter @EdwardHumes. Let's crowd-source the 102-ton legacy into oblivion . . . or at least put it on a major diet.