

Chapter 24 –Consumptethics

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The Power of the People, The Good, The Bad, The Ugly, Pay Me Now or Pay Me Later, Step Up Already, It's Only Poison, Just Say No, References

The Power of the People

The main point of this entire chapter is to hammer home what I've been saying constantly throughout this book. Every single one of us makes choices every day either for or against the beautiful planet that we share, with each other and with the wildlife that also lives here on Earth. It is our ethical responsibility to make good choices if we care about the long-term wellbeing of our planet, and about leaving it in good condition for future inhabitants. In Chapters 16 – 23, I've shown how the simple daily choices that my husband and I make have reduced our carbon emissions by nearly 80%, as well as reducing our impact on wildlife, and maybe even helping wildlife to increase ever so slightly in numbers. And we maintain a very nice lifestyle, are not wanting for anything in particular, are healthy and happy. And we even travel now and then.

Ethics: The discipline dealing with what is good and bad and with moral duty and obligation.
Merriam-Webster Dictionary

We people have the power to change the world for the better with responsible consumption. And, by avoiding spending our money with unethical corporations, we also help the environment, because most of these kinds of companies are also unethical when it comes to the environment. If we don't like what they do, what they sell, or the impact of their products, then we can choose not to buy from them. This is a historical method of changing what we don't like and it works. It's called boycotting.

Consider the ethics of this: How fast do people get excited if their own drinking water gets tainted? Yet we've been just fine with forcing wildlife to drink poisoned water, eat poisoned food and live on poisoned land, filled with microplastics and other trash, through no fault or bad will of their own. Just bad luck. Or, more accurately, bad timing. The particular beasts that have been born in the past century, have been born at a time when man has trashed, in one way or another, every corner of this planet. This leaves them nowhere to turn, if they happen to have the capacity to consider living in a more hospitable place. Think of that. How would we like to be forced into their position? And it's no wonder we've lost more than half the planet's biomass with respect to wildlife. Ouch. Populations are beginning to drop faster as species reach the last few of their kind. Because of us. Yes, we need to get PFAS out of our drinking water. But, from an ethical standpoint, don't we need to clean ALL of the water? Since we're the ones who created the problem in the first place? Which in reality may not be possible for centuries, but shouldn't at least stopping production be a huge priority, now that we know?

Who?

Let's face it, greedy corporate cronies are far more interested in their own wealth than in the environment or even in the well-being of people. It just goes with the territory. My take is that by definition, in order to become extremely wealthy, you have to be pretty selfish. You can't accumulate that kind of wealth without gouging customers, and then in order to keep that wealth you have to play unethical tricks and influence politicians in order to stay relevant and avoid potential new legislation that could make it more difficult for your business. Like environmental responsibility, which supposedly costs more than irresponsibility. And you have to be OK with all that. Meaning, you have to be evil. Or at least, extremely selfish. Or totally thoughtless with regards to the rest of us and the wildlife who share our planet. And yes, I'm aware there are some decent people who care among the ultra-wealthy, and do decent things. But if you're one of them, you're extremely rare. Just saying.

Voting with our dollars, and being choosy about who we spend our dollars with, is by far the fastest way to turn things around. We buy things all year long, while we only pick our politicians every 2 to 4 years. This is nothing new, and it works. With our combined consumer dollars, we have far more power than big corp. Think about that.

Investors can have an impact too. For example, during the Vietnam war, activist shareholders pushed Dow Chemical to stop producing napalm. Shareholders also forced McDonald's to stop using polystyrene foam, and Costco to limit antibiotics in the meat it sells. A lot of investors, including myself, have divested from irresponsible companies, especially the petroleum industry. The divestment movement claims to have pulled more than \$8.5 trillion out of fossil fuel companies.¹

Millennials are the largest generation on the planet, and stand to inherit the shit show we're leaving them, so they're an important part of the change we need to see. A global survey showed that 87%² of millennials believe that the success of a business should be measured in terms of more than just its financial performance. A Morgan Stanley survey found that Millennials are three times as likely to seek employment with a company that is socially and environmentally responsible.³ Many companies are feeling pressure from younger workers.

Consumer expectations are higher than ever, and that's helping to force companies to improve their labelling and lose toxic chemicals in their products. Consumers are more concerned about products being responsibly sourced and manufactured. We can bring products and entire companies down with social media, that can spread stories instantly to large numbers of consumers. It's our responsibility to use our buying power to pressure companies to aggressively address environmental and social issues. If we pressure the companies relentlessly and aggressively, they'll be forced to cut the crap or go out of business, which will help our environment and reduce our carbon emissions. And since the big companies are the ones who buy the politicians for the most part, the politicians in turn will be forced to drive legislation in a more sustainable direction.

Summing up, business has a central and critical role in driving sustainability improvements, and we consumers have a central and critical role in driving business. To change things on our planet for the better, individual people have to change with the needs and requirements of the times, to help progress

and change for good, for the future of this country and the world, instead of trying to stick to the past, refusing to change, and dragging the rest of us down in the process. Stop blaming the government and environmental regulations for all your problems and look in the mirror. Seriously. Am I wrong?

Where?

Now let’s consider where we buy, and where they stand on environmental sustainability and social responsibility. I’m comparing specifically grocery stores as a category, since food is our single largest carbon footprint, single-use packaging mainly comes from grocery stores, and this is where most of us do our regular shopping, since we all have to eat. I can’t include all the issues here, obviously, because there’s not enough space, but I can at least provide a snapshot to give you some food for thought, pun intended. I’ll then refer you to the “Better World” website⁴ for more complete information. This book will be out of date practically before it’s written when it comes to businesses and responsibility, because things are changing so fast, but the Better World website is updated constantly.

Table 1 shows the numerical rating system for each category of issues that I developed to hopefully clarify and simplify the rankings for each store.

Table 1 - Rating System to Assess Environmental and Social Responsibility for Grocery Stores

Category	Numerical Rating				
	1	2	3	4	5
Local Products	0 – 20%	20 – 40%	40 – 60%	60 -80%	80 – 100%
Bulk Products	0 – 20%	20 – 40%	40 – 60%	60 – 80%	80 – 100%
Packaging	Poor	Low	Good	Very Good	Great
Responsible Products	0 – 20%	20 – 40%	40 – 60%	60 – 80%	80 – 100%
Recycling	0 – 20%	20 – 40%	40 – 60%	60 – 80%	80 – 100%
Food Waste Initiatives	0	1	2	3	4 or more
Environmental Initiatives	0-1	2	3	4	5 or more
Social	Poor	Low	Good	Very Good	Great
Total	8	16	24	32	40

An explanation of what’s included in each ranking follows:

Local Products – Emphasis on products from the local region or within the state, or at least within the U.S. Local products are typically produced more responsibly, employ locals and are transported a shorter distance to the store.

Bulk Products - Products that can be purchased without any kind of container, allowing byoc (bring your own container) or in a container that can be returned to the store. Not to be confused with “bulk” products that are packaged in huge quantities that most of us couldn’t possibly consume in a lifetime, in unreturnable plastic bags. By the way, this kind of bulk typically comes up when you search for bulk stores. The kind of bulk that I’m referring to comes up lower, so you have to scroll down a bit to find

them. Also, every store has some level of bulk food in the form of fresh, unpackaged produce, and while you can choose to put these in the plastic bags typically provided, you can also choose to pass on the bags and just dump them all in your own reusable bag.

Packaging – Is packaging minimized and recyclable in a single stream program or reusable? Is plastic minimized in the store? Are multicomponent packages and overpackaging minimized? If the store ships or delivers, is plastic packaging or fill eliminated?

Responsible Products – Responsible products are organic, free-range (poultry), grass-fed (beef and buffalo), pole-caught or sustainably farmed (fish), and other such ratings to show that the food was produced responsibly with minimum carbon emissions or impact on wildlife. Non-GMO is a subcategory of organic, and will have the same carbon emissions to industrial agricultural practices, but is better than nothing. Does the store sell poisonous products that are intended to kill insects, and by extension wildlife in general? Does the store sell products that contain toxic petrochemicals that ultimately kill wildlife after they go to sewer?

Non-Food Waste Management – Does the store recycle all its packaging waste, sending less than 10% to landfill? Does it take back all packaging from products that it sells, for recycling or reuse?

Food Waste Management – What happens to food as it reaches or passes its expiration date? Is usable food repurposed, or “rescued”. Is blemished food or nearly expired food repurposed into prepared products such as soups or deli products? Is unusable food composted or repurposed for agricultural use? Is food waste avoided entirely by offering only foods that don’t expire (eg dried foods).

Environment – This is a catch-all category that covers carbon footprint reductions not directly related to the products. Minimization of energy within the store, water usage and handling practices, use of EV’s if the store delivers, renewable energy. A score of 1 is for 0 or 1 initiative. 2,3 or 4 is for those numbers of initiatives, and 5 is for 5 or more initiatives or carbon neutral or environmental section on website.

Social – Social refers to general treatment of employees, and overall Diversity, Equity and Inclusion (DEI) practices, as well as purchasing ethics from suppliers and producers. It also includes whether political support and alliances are socially responsible.

Table 2 shows how a sampling of stores in our area, the front range of Colorado, ranked at this point in time, which is November, 2025. These are all stores that I’m either intimately familiar with, because I shop there often, or are close enough that I can walk through and see for myself.

Table 2 - Environmental and Social Rankings of Front Range Grocery Stores

Store	Local Products	Bulk Products	Packaging	Responsible Products	Non-Food Waste	Food Waste	Environment	Social	Total
Nude Foods	5	5	5	5	5	5	1	5	36
Simply Bulk*	5	5	5	5	5	5	1	5	36
Natural Grocers	2	2	3	5	3	5	4	5	29
Lucky’s	3	2	3	5	4	5	1	5	28

Leever's Locavore	3	2	3	5	4	5	1	5	28
Costco	1	1	1	1	4	5	4	5	22
Kroger*	1	1	1	3	3	3	4	5	21
Whole Foods	1	1	2	4	2	5	5	1	21
Safeway	1	1	1	1	1	3	4	4	17
Walmart	1	1	1	1	2	5	4	1	16
Target	1	1	1	1	2	5	4	1	16

*Simply Bulk is an example of other bulk stores in the area, such as Minimal Market.

**Kroger includes several chains, such as King Soopers, City Market, Fry's, Smith's, and more in the West.

In Table 2, my simple rating system has Nude Foods and Simply Bulk tied for first place, with full points for every category except the general environmental. This lower rating for environmental also applies to the other local stores on the list, Lucky's and Leever's, and is mainly due to less buying power than the big chains, which leads to tighter profit margins, so that it's more difficult to put up money for additional sustainability projects, like solar panels. Also, locals often rent their store space, a disincentive in most cases to improve the property in a big way. Nude Foods does have one initiative, of cutting their carbon footprint of transportation by delivering on bikes or in EV's, and Lucky's has been upgrading major equipment to reduce energy usage, such as outdated compressors and HVAC units with more energy-efficient systems. However, these small stores are knocking it out of the park on everything else that a grocer can do, with local, bulk products that are mainly organic, helping shoppers reduce their carbon footprint by as much as 18%, as we found in Chapter 17. Their handling of food and non-food waste is also extremely impactful, as we know from Chapters 17 and 22, reducing carbon footprint by another 3 - 7%.

Natural Grocers, Lucky's and Leever's, with the second and third highest ratings, respectively, are similar in most categories, with moderate levels of local and bulk products, and a decent level of sustainable packaging. They are all very responsible about the products they offer, which are mainly organic with responsible packaging. Lucky's and Leever's ratings on non-food waste are higher than Natural Grocers because they take back containers that can go in a single-stream dumpster. Natural Grocers doesn't take back any containers, though Natural Grocers has a long history of only offering used boxes for groceries instead of single-use bags, decades before it was popular.

Natural grocers has their environmental sustainability progress easily accessible on their web site, with some fairly aggressive goals. This is seen more with big corporations, while, again, smaller locally owned stores are on a tighter budget. Leever's and Lucky's don't really have much information out there about social responsibility, but when I'm in the store I see a reasonable level of diversity among their employees, who seem happy and say they're treated well. Leever's is employee owned, which is very progressive. It's also worth noting that Natural Grocers started out as a single locally-owned store in Lakewood, in a small house not so long ago. In fact, Hilary's mother shopped at the original "Vitamin Cottage" and was friends with the founder, Margaret Isely. So, small stores can in fact go big. They all start somewhere and are ultimately defined by the path they choose to take as they grow.

Costco, Kroger and Whole Foods have similar rankings in the bottom half of the stores. All are national chains that don't do much with local or bulk foods or with responsible packaging, though Whole Foods has a slight edge on the packaging. Whole Foods does a really good job with responsible products, while Kroger falls in the middle and Costco doesn't appear to prioritize responsible products particularly, being more about cheap and exploitive. Costco does a better job than the other two stores on recycling, taking back quite a few kinds of items. Both Whole Foods and Costco do an excellent job of keeping food waste out of landfill, with several initiatives in play. All three of these stores rate high on environmental initiatives, which are posted on their websites. Both Costco and Kroger have good social responsibility practices, while Whole Foods fails in this category, being owned by Amazon, who has discontinued DEI initiatives and supports a fascist president.

Safeway, Walmart and Target are all ranked at the bottom, with less than half the possible points. Rather than local, they source their products from the cheapest, most exploitable means possible, mainly in plastic. Walmart and Target may do a little more than Safeway, but on the internet there were claims that most of what they take back ends up in landfills. I checked behind the Safeway store near me and found baled cardboard and plastic film that was probably from stretch-wrap on pallets. If these are separated they're pretty valuable waste streams. There weren't any additional recycling containers, just a trash dumpster. Walmart and Target appear to keep their food waste out of landfill based on their environmental reports, while Safeway, which is actually owned by Albertson's, does just a few things. All three are typical big corps with full-on environmental sustainability goals to reduce energy, and annual progress reports that are easily found on the internet and pulled down for review. I assume they're actually working towards these goals because of the annual reports. Both Walmart and Target have low social ratings because of their recent show of support for Trump, by removing DEI initiatives, while it doesn't look like Albertson's has chosen to do that.

I hope this review of stores near me will inspire you to investigate the stores near you, and choose to spend your dollars in the more responsible businesses. I weighed the different categories the same, with a range of 1 – 5 points, because I think they're all equally important. I think that small stores are more honest and less likely to green-wash. They may not be able to do the big corp zero energy initiatives at first, but they more than make up for that with their product and waste handling practices. And, as they grow and have more money to work with, they're very likely to do more with energy.

We really do need to work as much as we can with small local stores. Without our business they can't grow, and could go out of business. I've seen this plenty of times, and it's sad to see yet another local, responsible bulk store go out of business for lack of customers that prefer to shop in the big boxes that really don't do very much for locals or the planet with their product policies. Local groceries keep money circulating within the community, 2 to 4 times more than big chains, creating more wealth within the community. When we spend our dollars with small stores, 67% stays in the community, compared with 43% for big chains. Small businesses also create more local jobs.⁶ Think about that.

What?

Now let's consider what we buy. We mainly buy food, because we have to eat every day, and we've discussed that already. But what about all the other stuff? The non-food items abound, and, while irresponsible food can contribute a huge carbon footprint in production, most of the toxins in our homes are from non-food items. These include things like personal care products, cleaning products and insecticides that poison us when we use them, and then poison the environment when they go down the drain, as discussed in Chapter 14. Most of these products are unnecessary, presented to us through big corp marketing initiatives. Look around your home and see what you have, and think about whether you actually need it, or if you even use it.

In our house, we mainly use Aspire liquid castile soap for cleaning, hand washing dishes and laundry, and vinegar diluted in water for windows. We also keep a little dishwasher detergent around in case we decide to use the dishwasher. You can also use baking soda with a little water for scrubbing if needed, though we just use a scrubby with soap. This is so much simpler than having dozens of different specialty products, most of which are toxic and overpriced, and really don't have a significant edge over simple castile soap. I already discussed in Chapter 7 the importance of reading ingredient labels to avoid bringing toxic products into your home, and particularly using them on your body. Avoid synthetic dyes and fragrances, which can lead to health problems like allergies, breast cancer, reproductive disorders, skin allergies, nervous system damage and migraine headaches, according to the National Institutes of Health.⁶

Examples of things we definitely don't need that are overkill extras are things like antibacterial soap, which is no better for washing your hands than plain old ordinary soap.⁷ Antibacterial soap and hand sanitizers contain alcohol that's intended to kill bacteria, which is something that's not really healthy for us, since most bacteria on our skin is natural and is there to protect us, and will actually help us if we don't kill it off with excessive washing. The only time that hand sanitizers might be a good idea would be if there's no water available for washing, and there is actual risk of exposure to pathogens.

And don't get me started on the absolute insanity of air fresheners. I mean, really? We must make our bathrooms smell like flowers by wasting yet more money on yet more unnecessary liquid in yet more single-use containers? When the malodor will simply dissipate in just a few minutes if we simply open the bathroom door? Yet I see air freshener in most people's bathrooms, which is why it's a \$2.67 billion industry in the U.S. alone.⁸ Yeesh.



We've already discussed the absolute necessity of losing toxic pesticides in Chapters 7, 9, 10 and 11. If you need Roundup for your flat green lawn, and Roundup is killing wildlife, then is it ethical to have a flat green lawn? I know my answer. I think Roundup and the flat green lawns it's sprayed on should be illegal. Yet, if you'll just die without a flat green lawn, then at least avoid toxins that you don't even need. The internet abounds with non-toxic homemade recipes that will kill the weeds just fine without killing everything else. One example is 3 cups of vinegar, $\frac{3}{4}$ cup salt, 2 tsp of liquid dish soap and 3 tsp of liquid capsicum (the heat in chili peppers, in concentrated form), or just use a really strong hot sauce.⁹

There are many simple ways to avoid toxins with insect repellent as well, without resorting to smearing DEET all over yourself or spraying poisons throughout your house and yard. The simplest by far if you're outside on the patio is to use a fan to knock them off course. In a consumer reports test, a fan cut mosquito landings on those nearby by up to 65%.¹⁰ It turns out that the airflow also scatters the exhaled CO₂ that attracts the mosquitoes. You can also spray yourself with repellents that use essential oils that are known to repel insects, like citronella or oil of lemon eucalyptus. Aphids generally aren't harmful to mature plants and are food for beneficial insects, so if you don't spray wide spectrum insecticides that kill everything, the beneficials will eat the aphids. For seedlings, I simply pick any aphids off by hand. It doesn't really take that long.

The Zika virus, which is spread mainly by bites from infected mosquitoes, can cause serious birth defects. Many wetlands full of diversity have been saturated with toxic insecticides to get rid of the mosquitoes, but have unfortunately decimated all the other life, including insects and higher life, as well as birds. Wouldn't it be a lot simpler and less devastating to just wear suitable clothing to protect

A few years ago, I did a study on ingredients in laundry detergents to support a laundry water reclamation effort in the City of Golden. The idea was to reuse laundry water, one of the graywater sources within our homes, for outdoor watering. The purpose of the study that I did was to address the concerns of citizens that we could be poisoning our lawns or overloading them with salts. I went to Safeway, knowing that there would be a wide selection of both responsible and irresponsible detergents. My intention was to take quick pictures of the ingredient lists on all the products, then compile them to show what exactly we would be putting in our yards if we chose to use laundry gray water. I quickly found out that the nasty big corp detergents, like Tide and All and Cheer, don't list their ingredients on the boxes, while the ethical products, like Seventh Generation and ECOs, proudly list their ingredients on their labels. I had always thought it was illegal to not list the ingredients, but evidently big corp has found a loophole whereby they can put a website or QR code to get the ingredients, and who but severely OCD inflicted nerd such as myself would bother? Ultimately of course I did bother, and found that many of the links on the boxes didn't even work, so I had to dig deep in the websites and after several tries, I would finally find the ingredients lists. Predictably, essentially all the ingredient lists that I had to dig deep for were brimming with toxic unbiodegradable petrochemicals. I loaded all 144 of them into a spreadsheet and dug into the Material Safety Data Sheets for every single one of them, a chore in itself, to determine toxicity. And while my study was focused on laundry detergents, a quick look at dish detergents showed the same basic trend. Detergents like Dawn and Joy are horrendous, while ECOs and Seventh Generation are much better for the environment. I guess a simple solution to the issue of cleaning products is that if they list the ingredients on the label you're good to go, and if they don't, you're not. That's a lot faster than digging through manipulative big corp web sites like I did.

against mosquitoes? Then fortify the clothing with responsible repellents that work just fine? Also, consider the source. Mosquitoes lay eggs in standing water, which includes sites like back-up gutters, tires, planters, buckets and such. Eliminate the source and that will eliminate the problem.¹¹

If you have toxins that you no longer want to poison the planet with, please don't flush them down the toilet or toss them in the trash, where they can spread into the environment through the landfill, by way of birds and other wildlife. Collect them and take them to a poison collection center. Your landfill will know where the nearest one is if you don't. It might even be at the landfill. You should only have to do this a couple times until your space is completely purged.

The Good

I think most of us realize that not all big corps are completely horrible. I mean, there are some things we can't get without big corp, like all the electronics that we use, the raw materials, even the containers that I say we need to stop using. While that's true, we still need stuff, I'm just saying we need to use far less than we do. Which I've already shown in Chapters 22 and 23. So, if we agree that we do need *some* stuff, how do we know which companies are the most ethical, so we can make good choices of who to spend our hard-earned dollars with? So we can pick the lesser of the evils, so to speak.

There are a number of standards out there for identifying the more responsible businesses. One is B Corps, outlined in the side box. Another is ISO (International Organization for Standardization), a standardization system that covers all kinds of manufacturing categories, including environmental sustainability. There's also the GRI (Global Reporting Initiative), and SASB (Sustainability Accounting Standards Board), both of which are being monitored by the SEC (Securities and Exchange Commission), which reports that 80% of S&P 500 companies are now producing sustainability or CSR reports.

<p>B Corps, or Certified Benefit Corporations, are companies that have committed to, and are legally required to put care for people and the planet, along with profit, at the center of their business strategy. This is also known as the "Three P's",</p> <ul style="list-style-type: none">• Profit• Planet• People <p>Asking whether a corporation is a B Corp is a simple way to determine if it follows environmentally responsible</p>
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It's complicated. Luckily, an organization called the "Better World Shopper" has made it fairly straightforward for the average consumer to identify the good from the bad. They publish a book on their research methodology with summaries of companies,¹³ as well as a small handbook¹⁴ that's designed to quickly look up products and companies. They also have a website⁴ that is maintained with the latest research, and is updated regularly as companies change.

The Better World Shopper is a public research organization, which in my opinion is the easiest to follow, and the most accessible to the average consumer. It undergoes extensive research for more than 2,000 U.S. companies in the following five categories, which expand ethical behavior and responsibility beyond specifically the environment in the following categories.

- **Human Rights**- Child labor, sweatshops, slavery, worker health and safety records, human trafficking, developing world exploitation, international health issues, economic divestment, union busting, fair trade, worker fatalities, livable wages, democratic principles.
- **The Environment** - Climate change, renewable energy, toxic waste dumping, recycling, eco-innovations, sustainable farming, ocean conservation, rainforest destruction, ecosystem impacts, overall pollution.
- **Animal Protection** - Humane treatment, factory farming, animal habitat preservation, sustainable seafood harvesting, animal testing, animal-free alternatives, vegan-friendly.
- **Community Involvement** - Family farms, nonprofit alliances, local businesses, sustainable growth, campaign contributions, paid lobbyists, political corruption, greenwashing, transparency.
- **Social Justice** - Discrimination and/or harassment (based on race, gender, age, sexuality, ability, religion, ethnicity), class-action lawsuits, unethical business practices, government fines, cover-ups, illegal activities, executive pay.

Companies are given a grade from A to F in each category, A being the best and F being the worst, and the grades are averaged for an overall grade for each company. The best companies based on their research are listed below.

1. New Belgium Brewery - Brewery
2. Seventh Generation – Cleaning Products
3. Organic Valley - Food
4. Patagonia – Clothing
5. Alter Eco - Chocolate
6. Dr. Bronner’s – Cleaning Products
7. Method – Cleaning Products
8. Equal Exchange - Chocolate
9. Traditional Medicinals - Medicines
10. Ecover – Cleaning Products



In In the long run, it turns out that environmental responsibility is actually better for business. Of more than 500 global companies, 69% report higher-than-expected financial returns on climate initiatives.¹⁵ McKinsey estimates that getting to net zero is a more than \$12 trillion opportunity.¹⁶ This is because more and more customers care about the social and environmental impacts of products they buy.

The side box is an example of good big corp intentions, which is a start. You’ll notice that General Mills isn’t on the above list but that’s because they’re not

A week before the 2024 Presidential election, the CEO of General Mills, Ken Powell, spoke about his commitment to acting on climate. “I am accountable for enterprise risk,” he said, “and clearly there’s a strong scientific consensus that climate is a risk.” For these reasons and more, hundreds of U.S. CEOs signed a letter to the president-elect that urged him to stay the course on global climate action and building the clean economy.¹⁷

among the top ten companies. However, they currently carry a “B” rating, which is better than most.

For seafood, more responsible grocers and restaurants are working with nonprofit organizations like Fish-Wise or consulting companies like SCS Global and Trace Register for supply chain audits and consulting services. Greenpeace has an annual report card, “Carting Away the Oceans” that ranks supermarkets based on ethical purchasing, supply-chain transparency and fishery to shelf traceability. Whole Foods and Safeway had good scores, Trader Joe’s and Walmart were somewhere in the middle. At rock bottom were Save Mart, A&P and Publix. Of course, only the big national chains are ranked on this site. Absent are local stores like Lucky’s and Leever’s, who are every bit as responsible. I was surprised to see that Natural Grocers wasn’t ranked either, because I’m sure they would have rated high. The Monterey Bay Aquarium, which produces seafood report cards that rank fish from an environmental perspective is really useful, with millions of the cards downloaded.¹⁸

There’s even a website for ranking cities in terms of how they change the marketplace, their politics, economics of collective action and impact on CO₂e.¹⁹

The “Better World Shopper” can also be used to decipher the good from the bad when it comes to specific business and product categories, since there are many decent companies and, again, maybe not graded A, but with better ethics than a company graded F. Table 3 is a breakdown of a few examples, and you can search the website for more.

Table 3 - A Sampling of Good Categories in a Few Categories

Category	Top Three Good Companies
Supermarkets	Farmer’s Markets, Food Coops, Whole Foods
Retail Stores	Patagonia, Timberland, American Apparel
Insurance Companies	Better World Club, Kaiser Permanente, Progressive
Online	Wikipedia, Etsy, Craigslist
Hotels	Kimpton, Marriott, Courtyard
Feminine Care	Luna Pads, Gladrags, Seventh Generation
Diapers	Plum Organics, Diapers, Seventh Generation
Cleaning Products	Earth Friendly, Ecover, Seventh Generation
Body Care	EO, Preserve, Pangea Organics
Toilet Paper	New Leaf, Greenline, Green Forest, Earth Friendly,
Banks and Credit Cards	Vancity, Sunrise, OnePacificCoast
Appliances	Terracycle, Recycline, Preserve
Airlines	Frontier, Southwest, Jet Blue

The Bad

We know there are plenty of big companies that are saying “NO” to ethical behavior and environmental responsibility, and these are obviously companies to avoid spending our money with. Even in this day and age of transparency and consumer demands to know the social and environmental impacts of the products they

Greenwashing - the dissemination of misleading or deceptive publicity by an organization with the aim of presenting an environmentally responsible public image.¹²

buy, the slimier corporations are still trying to greenwash, which is basically an attempt to con the consumer into thinking they're better than they are with marketing statements that are pure bullshit. More than 50% of 2,000 corporation surveyed don't even have a sustainability pledge, and while many corporations seem to have "a concept of a plan", they haven't actually done much.

Shell, Exxon and BP are actually retracting their climate promises, expanding drilling and extraction, while reducing investments in renewable energy. In 2021, 80% of Chevron's advertisements mentioned sustainability, yet only 1.8% of their expenses went to any projects besides fossil fuels.¹⁵ I saw an advertisement in National Geographic, March, 2020, for Dow Chemical, going on and on about recycling all their plastic, which struck me as a pathetic attempt to keep themselves somewhat relevant when they're the crappiest company in the country. And when we are actually recycling less than 10% of the plastic in this country. And it makes me wonder which is worse? Dow for being the crappiest company or National Geographic for Publishing Dow's bullshit advertisement on the first page? And all obviously driven by greed and lack of environmental ethics. While I value National Geographic information about environmental and wildlife issues, they definitely don't walk the talk when it comes to advertising. Because that's where the real money is.

And then there's Coca Cola, who threatened to withdraw a donation to Grand Canyon National Park when the park lost so much Federal Funding that they had to delay most of their infrastructure work, along with all the other national parks. So why would they do that? Because Grand Canyon tried to do the right thing for the environment and eliminate bottled water. And Coca Cola was pissed because they wouldn't be selling their Dasani bottled water there anymore, so Grand Canyon was forced to raise the ban. Again, which is worse, Coca Cola for being a typical greedy scumbag big corp or Grand Canyon for enabling them? Or us for buying the fucking water in a plastic bottle when we could bring our own bottle and fill it at one of the numerous water filling stations?

I've already touched on politics a couple times, and Chapter 26 is entirely about government and politics, but since government and big corp are so central to our planet's destruction, I have to call out the slimy Big Corp assholes who stood proudly on the dais at Trump's inauguration, demonstrating once and for all their support of fascism, white supremism and environmental degradation.

"To hell with other species or skin colors or future generations. As long as we stay rich."

- Elon Musk – Tesla
- Jeff Bezos – Amazon, Whole Foods,
- Mark Zuckerberg – Meta, Facebook, Instagram
- San Altman – OpenAI
- Shoue Zi Chew – TikTok
- Sundar Pichai – Google

Which brings us to the worst of the worst U.S. companies. Notice Tesla isn't on this list. They're not a U.S. company.

1. Exxon-Mobil – Evil Big Oil

2. Kraft-Heinz – Processed Food
3. Walmart – Retail Greenwasher
4. Chevron – Evil Big Oil Greenwasher
5. General Motors – Auto Greenwasher
6. General Electric - Motors
7. Pfizer – Evil Big Pharm that Gouges Consumers Relentlessly
8. Nestle – Irresponsible Chocolate
9. Citibank – Bank that enables Evil Big Oil
10. Dow – Evil Big Corp that makes nothing but toxic products, like plastics and pesticides



No real surprises here! It's worth mentioning that Walmart's website looks very convincing, but it turns out that on closer examination they're not really doing much. Good to know. A few others that deserve calling out would be Home Depot, who sells a few (very few) sustainable items, yet glosses over the fact that they are selling a huge portion of the toxic pesticides, including Roundup, to homeowners who don't need it, in support of wildlife decimation. Same for Ace Hardware.

Here's a sampling in Table 4 of the worst companies in a the same categories as in Table 3.

Table 4 - The Worst Companies in a Few Sample Categories

Category	Top Bad Companies
Supermarkets	Walgreen's, Save-A-Lot, Publix, Loaf N Jug, Kwik Shop, Fred Meyer, Cub
Retail Stores	Walmart, Sears, Kmart, Dillard's, Foley's, Macy's, Bloomingdale's
Insurance Companies	Blue Cross/Blue Sheild, State Farm, Prudential, New York Life, Liberty Mutual, GEICO
Online	Microsoft, AT&T, Comcast, Xfinity, MSN, Live, Bing
Hotels	Hilton, Hampton Inn, Embassy, DoubleTree
Feminine Care	Tampax, Always, Clear Blue Easy
Diapers	Pampers, Luvs
Cleaning Products	Dawn, Joy, Proctor and Gamble, Mr. Clean, Ivory, Gain, Febreze,
Body Care	Secret, Old Spice, Oil of Olay, Noxema, Mitchum, Gillette, Chapstick
Toilet Paper	Vanity Fair, Puffs, Georgia-Pacific, Charmin, Bounty, Angel Soft
Banks and Credit Cards	Citibank, Bank of America, Wells Fargo
Appliances	Walmart, Sears, Kenmore, GE, Craftsman, Lowes, Home Depot
Airlines	US Airways, United, Continental, American Airlines

Amazon may not be one of the worst Online companies, but it's close with a "D-" grade, closely followed by Facebook with a "D". Home Depot isn't at the bottom of the heap, but they have a low "D" rating. On Hotels, pretty much all the common chains like Holiday Inn and Holiday Inn Express are just a notch above those listed as the worst in Table 4, with "D" grades,. Monsanto isn't on a list because they make such a variety of nasty chemicals and don't fit in a specific category, but they have an "F" overall in the general category that includes all the companies.

Cities and HOA's can be just as irresponsible as the worst of the big corps. An example would be routine spraying of poisons to get rid of invasive plants. Why not just pick them? Get a team of volunteers together and get it done. Another issue would be complete lack of biking and walking paths, making it impossible or dangerous to walk or ride a bike to work, or pretty much anywhere. Cities can also choose what business to allow into their districts, and can provide renewable energy, recycling and composting options for residents and businesses. Or not.

The Ugly

When I worked at Coors, we had a huge variety of attitudes among the many employees, just like any other major employer, and these attitudes were generally grouped into "engaged", "disengaged" or "actively disengaged". The terms "engaged" and "disengaged" should be obvious. The "actively disengaged" employees were those who appeared to despise the company, their coworkers and their job so much that they felt it necessary to constantly make things difficult for the company and everybody around them. Basically they were advocates for dissatisfaction. The idea was obviously to encourage engagement, try to address issues of the more passive "disengaged" among us, those who did have concerns that were legitimate and in need of attention. The "actively disengaged" were, in my mind, just assholes who should get out of our hair and find somewhere else to work, where they perhaps could be happier, if that was indeed possible.

I think of the "actively disengaged" employees that I used to work with as I summarize what I know about the uglier big corps who actively engage in corruption to constantly get away with scandalous behavior as they manipulate us consumers while destroying our world in order to stay rich. I can't imagine that they are ever happy at their core, and I think they should find another planet to live on. Maybe we could find an uninhabited rock of an island somewhere in the far southern hemisphere and just drop them all there, so they can feed off each other. They're mainly despicable psychopaths who disdain humanity and the planet, so we really don't need them among us, destroying all that we have and love. At least, that's my take. I think of these ugly companies and individuals as the worst of the worst.

For one thing, there's the middlemen that the Federal Trade Commission (FTC) reported on, who have been hired by eight big corporations to collect data about consumers, product sales, and how the surveillance the companies used impacted consumer prices. Is that big brother or what? The goal was, of course, to target prices as high as possible to specific markets, no matter the cost of production. In other words, to gouge us. They're literally spying on us, using our location, browsing patterns, shopping history, and even the way we move a mouse over a webpage. Then, they put the most expensive choices on top of web searches. It turns out that the middlemen were working with at least 250 retailers. Before Trump took office, the antitrust enforcers, led by Lina Khan, went after several big corps over their unethical behavior.²⁰ In one of numerous fraud cases, they sued John Deere for generating \$6 billion by prohibiting farmers from being able to repair their own equipment.

And then there's the relentless in-your-face marketing as big corp constantly pressures us to buy buy buy stuff that we don't need, which by definition is bad for the planet and is bad for us. Think about that. Have you ever thought about how all these new holidays of the past couple centuries got started? Perhaps by companies trying to convince us to buy a bunch of junk we wouldn't otherwise buy? Ya think? Between Christmas, Mother's Day, Father's Day, Valentine's Day, Halloween and Easter, to name just a few, it's no wonder we have all kinds of unwanted junk that should never have been manufactured in our world. And it's a wonder we have any leftover money at all after buying all that stuff.

Marketing: The process or technique of promoting, selling, and distributing a product or service.

Merriam-Webster Dictionary

Scotts Miracle-Gro Company, was fined \$12 million for illegally applying pesticides that were known to be toxic to birds to bird seed. Really? And that's nothing compared to the \$2.82 billion in sales that consumers paid to kill yet more birds.²¹

Microsoft is one of the worst companies, for a good reason. With them, enough is never enough, as they endlessly cram updates that we don't need or even want down our throats. The most recent is AI, which I don't want or need. I know it adds to file server energy, I've done my research just fine without it, and now they've upped the annoyance with the newest stupid copilot icon that sits there in my way and constantly offers to write my text for me, as though I can't think for myself. The obnoxiousness of it makes me wonder if it's yet another conscious effort to dumb us down, and get to where we're so used to these products that we can't live or think without them so we desperately keep paying them to keep it coming. And I wonder if Bill Gates, like Elon Musk and their ilk, will ever feel like they're rich enough as they continue to become richer as they gouge the rest of us.

If I have to choose, I'm pretty sure that Musk is worse than Gates, on many fronts at least. In the case of Musk, we're part of the millions of deceived consumers who bought a Tesla for all the right reasons: It's a really good car, electric, efficient, and reduces our carbon footprint. When we bought it, we thought that was what Tesla and by extension Musk stood for. And we'd be wrong, by a long shot. Now we're just embarrassed. It turns out that although Musk said his goal was "to protect life on Earth", his companies are constantly breaking environmental regulations.

In California, Tesla's facility in Fremont had 112 violations, more than any other company. SpaceX got fined for dumping about 260,000 gallons of wastewater into protected wetlands in Texas. Tesla has dumped contaminated water into public sewer systems and has repeatedly asked employees to lie to the EPA so they can operate without proper environmental controls. The main reason Musk supported Trump was to gut environmental regulations as much as possible. Oh, and Musk companies have brought in at least \$15.4 billion in federal contracts over the past decades, while he and his company have been cited in at least 20 government investigations recently.²² Ethical? Anything but. More like psychopathically antienvironmental.

3M and Dupont are ugly companies to avoid as well. They got sued by the Texas Attorney General for marketing PFAS products despite knowing the health and environmental risks. In Rhode Island, the Attorney General filed a sweeping lawsuit against PFAS manufacturers for spearheading a massive and widespread campaign to knowingly deceive the public, including the companies who made, marketed and sold these products. And the Cookware Sustainability Alliance filed a lawsuit in Minnesota over a state-wide ban on PFAS, which bans non-essential use of PFAS, and requires disclosure of PFAS in products. The alliance argues that the law is unconstitutional and burdensome for business. So, basically, we're supposed to stick with non-stick cookware that's poisoning us and the environment, so that cookware businesses can keep profiting with burdens. Even if it means burdening our planet and ourselves with these poisons. Kill me. It just might.

The market for PFAS was estimated to be \$28 billion in 2023. The majority are produced by 12 companies: 3M, AGC Inc., Archroma, Arkema, BASF, Bayer, Chemours, Daikin, Honeywell, Merck Group, Shandong Dongyue Chemical, and Solvay.²³ It looks to me like all the fines and lawsuits these companies pay for are chump change compared to what they make from us paying them to destroy our environment and poison ourselves.

Monsanto, Solutia and Pharmacia had to pay \$35 million to the City of Los Angeles for polychlorinated biphenyl (PCB) contamination, and Monsanto also had to pay \$160 million to Seattle. Monsanto was aware of the risk posed by its products and knowingly misled the public, regulators and its own customers about these key facts.²⁴ Glyphosate, the active ingredient in Roundup, yet another toxic pesticide made by Monsanto, is even showing up in beers and wines. 20 beers, wines and a hard cider were tested and glyphosate showed up in all but one of them. When we're spraying 280 million LBS annually in the U.S., it's no wonder that it's infiltrated nearly every type of food tested by the FDA, including honey, cereal and ice cream, and it's even found in rainwater.²⁵

And, with Monsanto, it gets even worse, with yet another extremely dangerous herbicide, dicamba, damaging millions of acres of crops. It turns out it's specifically designed to kill all plant life except specially engineered crops that can resist it, so when it's sprayed it drifts into neighboring farms that don't grow the resistant crops, and kills everything on the farms. Two peach farms in Missouri won a \$265 million jury verdict after it killed their entire 34-year-old farms.²⁶ And, Monsanto was completely aware of the drift hazard.²⁷ This poison is even causing cancer in people, and Monsanto is aware of that as well,²⁸ and they will just keep selling it and profiting from it, while gouging so they can afford the lawsuits. And, it's perfectly legal for them to do so, because the EPA, which is owned by the Federal Government that is in turn owned by Monsanto and other unethical big corps, is allowing it. This is why it's up to us to refuse to buy big ag products that use it, and to obviously not buy it for our yards. Hello?

Entire countries have banned the use of glyphosate, in large part because of its link to cancer.²⁹ Mexico is one of those countries, but recently revealed e-mails show that it has faced pressure from Monsanto's owner to drop its glyphosate ban.³⁰ Plaintiffs in more than 100,000 lawsuits, say they were harmed by the chemical, including a former school groundskeeper who was diagnosed with terminal non-Hodgkin's lymphoma after using Roundup.^{31,32}

Coal mining moguls are abandoning mines and using a loophole to avoid the reclamation that's required by law, by putting the mines in "idle" status, saying they may eventually reopen them. Now that they've made their gigantic profits, they have no intention of fulfilling the cleanups that they obligated themselves to when they opened the mines. Now the mines will either continue to pollute, or the cleanup will end up getting done by the states, getting paid for by we the taxpayers. In West Virginia, the Governor, Jim Justice, owns mines that are idle and polluting.³³

Throughout the late 20th and early 21st centuries, a number of unethical industries and companies have literally paid unethical scientists to obscure the truth on issues from tobacco smoke to global warming, and this continues to this day.³⁴ If they could lose sales in the face of the truth, they've beat it back with misinformation time and time again. They fought the realities of the ozone hole, secondhand smoke, Rachel Carson's research on pesticides and any other irresponsible creations that they were selling at the time. They even went so far as to link environmentalism with socialism, saying that we'd lose our freedoms in the face of environmental regulations, a stance that the right wing continues to perpetuate. Implicated were the usual suspects among big corp and government, such as DuPont, Exxon Mobile, Philip Morris, R.J. Reynolds, Reagan, and H.W. Bush, to name just a few. To this day, they continue to fight the realities of plastics, fertilizers, fossil fuels, population growth, logging, mining, and meat and dairy, and the trashing of our oceans and fisheries, and the fact that Earth's resources are finite, to name a few. A sleazy organization called the George C. Marshall Institute was created in the 80's specifically to create doubt through fake, industry funded studies. It's no wonder we're confused.

And if that's not enough evil for you, we also have the endless history of cheating, bribing, fraudulent financial reports, rigged elections, payoffs, extortion, sex and murder, conducted by middlemen known as "Economic Hit Men".³⁵ A dizzying array of government and corporate entities have been involved in these unscrupulous plots, designed to manipulate entire governments in less developed countries, basically pressuring them to fall into hopeless debt to acquire infrastructure and amenities they could never afford, in order to drive more demand for natural resources for big corp to profit from. In a word, to make them forever needy and dependent on big corp. These horribly unscrupulous projects have led to wars and unnecessary deaths of innocents. These schemes involved oil companies like Amoco, BP, Enron, Texaco, major banks like Chase and World Bank, and service and construction companies like Halliburton and Bechtel, who had strong ties with both Bush administrations. We can expect that these kinds of activities continue today at some level, mainly in technology and electronics.

Corporatocracy or corpocracy is an economic, political and judicial system controlled or influenced by business corporations or corporate interests.³⁶

Pay Me Now Or Pay Me Later

Our country is now dotted with Superfund sites that lurk just about anywhere that big corp has extracted natural resources, including coal, metal and mineral mines, and oil and gas production facilities. The toxic products manufactured with these natural resources have created even more

superfund sites, from their manufacturing to their use to their disposal. There are more than 1300 superfund sites in the U.S. currently that still need remediated. Historically, about 70% of the sites have been remediated by the polluters, and the other 30% have been paid by you and me, the taxpayers. We're talking about billions of dollars and extreme environmental devastation and loss of wildlife because of companies that refused to operate responsibly and utilize environmental controls on their processes to avoid this contamination in the first place. And what's really disgusting is that, for the most part, it only increases costs 5 – 10% to comply with environmental regulations. But the ultra-rich would rather keep the money, in addition to the money they gouge us with by overpricing their products.

The EPA has spent about \$29 million of our tax dollars attempting to remediate the infamous Gold King mine in Leadville, Colorado, which blew out of its tailings containment dam in 2015, completely trashing the entire Animas and San Juan Rivers with 3 million gallons of toxic mining wastewater. It turned the rivers yellow and killed everything in them for miles downstream.³⁷ As another example, the EPA has spent \$127 million of our tax dollars mitigating lead contamination in hundreds of miles of rivers in Missouri, where historic lead mining has managed to contaminate more than 8,400 properties.³⁸

Portland Oregon's Willamette River, a 10-mile stretch that feeds into Portland Harbor, has been a superfund site since 2000. Heavy industry contaminated the water with chemicals, pesticides, petroleum spills, ships built and decommissioned, sewage and slaughterhouse waste, and toxins are still present in sediments. Fish are so contaminated that people are warned not to eat them, though some still do. The EPA estimates that it will ultimately cost up to \$2.5 billion to clean it up.³⁹

Oh, and we also get to pay for cleaning up more than 10,000 oil and natural gas wells that were left behind by the oil industry, known as orphan wells, to the tune of \$4.7 billion.⁴⁰

Across the country, big energy companies are considering a move from coal to nuclear-fueled plants, even as sites like Hanford remain mired in many-decades-long cleanups of radioactive landscapes. Do we ever learn? The Government Accountability Office estimates cleaning up Hanford could total more than \$100 billion. Since 1989, when Hanford was first designated as a Superfund site, 889 buildings have been demolished, 18.5 million tons of debris have been put in controlled landfills, and 20 billion gallons of groundwater have been treated. After 30 years of work, most of the really toxic stuff is still on site. The groundwater beneath Hanford is never going to be clean enough to drink, due to a cocktail of chemicals, strontium-90, which deteriorates marrow in the bones of humans and animals, and takes 300 years to break down; hexavalent chromium, which mutates salmon eggs, and technetium-99, which dissolves like salt in water

Superfund is a United States federal environmental remediation program established by the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). The program is administered by the Environmental Protection Agency (EPA) and is designed to pay for investigating and cleaning up sites contaminated with hazardous substances. Sites managed under this program are referred to as Superfund sites. The EPA seeks to identify parties responsible for hazardous substances released to the environment (polluters) and either compel them to clean up the sites, or it may undertake the cleanup on its own using the Superfund (a trust fund), seeking to recover those costs from the responsible parties through settlements or other legal means.

Wikipedia - <https://en.wikipedia.org/wiki/Superfund>

and has a half-life of 211,000 years. The waste is sitting in underground tanks, some of which have begun to fail, possibly faster than they can be cleaned up. A single shot glass full of the liquid would kill everyone within 100 yards instantly. The Columbia River flows nearby.⁴¹

PFAS is now so ubiquitous in our public waters that all the money in the U.S. wouldn't be enough to clean it up. 3M and Dupont are getting hit with so many lawsuits that they can't keep up, and there's concern about bankruptcy. Which would be just fine with me. According to a report commissioned by the American Water Works Association, removing PFAS from just drinking water could cost more than \$3.2 billion per year.⁴² Naturally, that would hit our consumer pocketbooks through our utility bills. The only reasonable plan is to stop making them, so that over time they slowly, ever so slowly, break down over the course of time and finally go away. And since we know that 3M, Dupont and Monsanto are unlikely to stop voluntarily, unless, of course, they are driven into bankruptcy with lawsuits and cleanup costs, we can force the issue by boycotting their products. We can stop big ag's destruction and drive Monsanto into the ground by eating only local, organic food.

Step Up Already

In addition to the superfund cleanups that we're paying for with our tax dollars, big corp is being forced to step up and pay for their messes through a variety of consumer-driven means, from lawsuits to votes to good old-fashioned pressure. Every one of us has a voice and we all need to speak up and force big corp to do the right thing, since they won't do it on their own. And, if enough of us speak up, they will eventually get around to it. To the extent possible.

Apple is finally cleaning up its act in its manufacturing operations in China, installing emissions controls to reduce the air pollution they've caused in manufacturing literally hundreds of millions of iPhones and iPads. In Oregon, a citizen's group called "Stand Up to Factory Farms" wrote a petition to the EPA to take immediate action on large-scale animal operations that have caused elevated nitrate levels in the Lower Umatilla Basin groundwater.⁴³

Dow Chemical was forced to pay \$77 million to restore waterways and thousands of acres of land that it poisoned with releases of dioxins and other hazardous substances by the Michigan Department of Justice, who responded to activism by the Saginaw Chippewa Indian Tribe after more than 10 years of fighting. The final ruling said that this doesn't include all the damage at the Midland headquarters, the manufacturing facility, or the costs of response by the EPA.⁴⁴

Monsanto and Bayer, the parent company, do their best to avoid cleanup costs from their poisons, but persistent environmental groups are forcing them to step up and pay through litigation all over the country. In Washington state they have to pay the state \$95 million for PCB cleanup that they've been fighting for decades. In Washington D.C. it's \$52 million for PCB contamination in 36 waterways in the district. Bayer had to pay \$80 million for PCB damage in Ohio, as well as \$648 million for a class-action suit brought by local governments and cities over PCB's. General Electric has to clean up PCBs in the Housatonic River in Connecticut at a cost of \$576 million.⁴⁵

In the U.S., there were 829 hazardous chemical spills in just 22 months in 2021 and 2023,⁴⁶ which is yet another of the endless reasons to stop using petrochemicals. We've proven time and again that no matter how hard we try to regulate them, they always get spilled eventually. And, once spilled, they're pretty well impossible to clean up.

The EPA is (or was, more accurately) working to ban pesticides linked to brain damage in children, one being chlorpyrifos, from use on food crops. This dangerous toxin was banned from household use more than 20 years ago, and the most recent push has been helped along by CoPIRG (Colorado Public Interest Research Group),⁴⁷ who, with their coalition partners, delivered more than 27,000 petition signatures in support of the action. It sounds like it will continue to be allowed on golf courses. Crikey. Obviously, that kind of stupidity would be driven by DOW and Monsanto, who want to keep lining their pockets while poisoning us. Trichloroethylene, a known carcinogen, continues to be present in a range of everyday products, the EPA proposed a ban on them in 2023, to take effect in 2024. The timing on that might be questionable, since that's when the current anti-environmental administration took over.

You get the idea. The corporations that make these poisons are going to keep on making them and keep on poisoning our world until we say no and refuse to buy them, or the food that's produced using them. They will not clean up their messes unless they're under extreme legal pressure to do so, and the same is true for containing their poisons so they don't get released into the environment to begin with. We can count on constant waffling when it comes to governmental regulations and bans. At the end of the day, the simplest and most effective way to stop this destruction is to not give these companies our money by buying their products. Products that we don't need or want anyway.

It's Only Poison

Environmental pollution is estimated to cause about 9 million premature deaths across the globe annually. The researchers estimate that 1.8 million of these deaths are from toxic chemicals, an increase of 60% since 2020.⁴⁸ It's no wonder, with more than 80,000 different toxic petrochemicals on the market in the U.S. alone, used in everything from perfumes and household cleaners to fertilizers and industrial solvents.⁴⁷ It seems to me that we've gone ape-shit crazy over the concept of "better living through chemistry" in the past few decades. I'm glad my chemical engineering path didn't lead me to a cushy job at a chemical manufacturing plant. While it probably would have been fun, I'd be feeling really guilty about now.

I'm pretty sure I've hammered home that there's no getting away from PFAS, and that they're in an unbelievable array of products, with about 5,000 different chemicals in this



category alone, as listed in EPS's PFAS Chemicals List.⁴⁹ A partial list of the kinds of products that PFAS are in, as well as a partial list of the many ways they can sicken and kill us are in Chapter 14.

PFAS are literally everywhere. They are in my house and yours, my body and yours. They're found in plant and animals downwind of waste incinerators. They're in groundwater and surface water. The drinking water of at least 110 million people in the U.S. is laced with it.⁵⁰ It turns out you can filter your tap water to get rid of it, with a simple carbon filter. However, then the disposal of the filter becomes an issue. PFAS are even in ski areas, where they play big in several types of ski waxes.⁵¹ They're big in fast food packaging. Over a million Big Mac boxes coated with PFAS are used and discarded each day.⁵² The container is used once, but the chemicals can leach into the food, putting customers' health at risk.⁵³ When the packaging is trashed, the chemicals leach into our groundwater from landfills, or end up in our air when incinerated, putting everyone's health at risk.^{54,55}



PFAS have even been found in Antarctic snow,⁵⁶ and Arctic Ocean currents, Glaciers on the Tibetan Plateau, rainwater the world over, and the air above the Amazon rainforest, to name just a few examples. Researchers have also found them in a variety of domestic animals and terrestrial and aquatic wildlife, which isn't a surprise. The Environmental Working Group has created an interactive map of wildlife, based on the accumulation of at least 125 different studies to date.⁵⁷

Of course, PFAS isn't the only poison in our world. There's also mercury, which poisons people mainly from fish. In the U.S. nearly all states have specific or general fish consumption advisories based on mercury contamination. The mercury mainly comes from coal burning and gold mining.

PFAS IN: Stain-Resistant Furniture, Carpet, and Car Interiors, Cosmetics and Waterproof Makeup, Dental Floss, Wrinkle-Free and Water Repellent Clothing, Nonstick Cookware, Pizza Boxes, Popcorn Bags, Food Packaging, Ski Wax, Foam Used to Extinguish Petroleum fires

EQUALS: Cancer, Thyroid Disease, Non-Hodgkin's Lymphoma, Kidney Disease, Auto-Immune Disorders, Fertility Problems, Birth Defects, Obesity, Weakened Childhood Immunity and Other Health Problems

It appears that small amounts of Roundup's glyphosate are showing up in about 80% of non-organic chickpea and hummus samples tested by the Environmental Working Group (EWG). The EWG

has tested several other common fruits and vegetables that are grown industrially, and list the ones that are relatively safe compared with those that aren't on their website.⁵⁸ The EPA's own scientists recommended a ban on chlorpyrifos because it is linked to brain damage in children, but the recommendation was ignored by Trump's EPA administrator.⁵⁹ Scientists are concerned that chlorpyrifos has a similar impact on humans as it does on the insects it's intended for.⁶⁰ This should be yet another reminder of why we are best off buying and consuming only organic products, as opposed to waiting for government to enact legislation to protect us, which ain't gonna happen any time soon.

And let's not forget about the other insecticides. Glyphosate and chlorpyrifos aren't the only ones. Of course, there are thousands, but yet another worth pointing out specifically is neonicotinoids, which are potent, widely-used insecticides that are often applied as a coating on seeds. It turns out that these can reach drinking water sources as they run off farmland into surface waters.⁶¹ In Oregon, roadside spraying of the weed-killer aminocyclopyrachlor, or ACP, by Oregon's Department of Transportation have killed more than 1,400 ponderosa pines, some centuries old.⁶²

When someone released a large amount of dishwasher detergent to the storm drain in Hartville, Ohio in 2019, hundreds of fish were killed in an 8-mile stretch of the Tuscarawas River. This is because detergent is extremely poisonous to aquatic life if it runs down a storm drain, because runs directly to the river untreated. If detergent, or any soap, is flushed down the sewer to the wastewater plant, it will be treated and the soap will be removed. This is a slightly different issue than the many toxic petrochemicals that big corp likes to embellish their products with in order to appeal to the consumer, smell and color and the like. These kinds of poisons do not get fully treated in the wastewater process, as discussed in Chapter 14.

In the study mentioned in Chapter 7, I investigated 144 different chemicals that I found in several different laundry detergents at Safeway. Of those detergents, the toxic big corp products, like Tide and Gain, did not show ingredient information on the labels, while the responsible products, like Seventh Generation and ECOs, did. At the end of the day, all you really need to wash your clothes is soap or detergent, and the really toxic chemical additives don't really do anything. Except poison the environment in their manufacturing, use and disposal. I know this. We've been washing our clothes with plain old Aspire Castile liquid soap for years and it works just fine.

You might be wondering how I went about determining the toxicity of all these additives. Actually, finding out the ingredients was the hard part; it was pretty arduous breaking through big corp's cloaks of secrecy. Actually, I never did find out what some of the ingredients were, because big corp likes

Unintended Consequences of DDT

In the 1950, malaria was inflicting villagers in Borneo, so the World Health Organization recommended spraying DDT, which worked. Until the side-effects. The roofs of people's homes began to collapse, because the DDT had killed all the insects, not just the mosquitoes. The tiny wasps that had previously controlled the thatch-eating caterpillars were killed. The poisoned insects were eaten by geckos, which were eaten by cats. The cats died, and the rats multiplied, leading to potential outbreaks of typhus and sylvatic plague, which are carried by rats. Oops.

to use yet another loophole in their sleazy bag of tricks. In this case, it's the good old-fashioned "trade secret" loophole. You gotta love that.

Basically, I took all the ingredients, looked up the Material Safety Data Sheets (MSDS's) for each of them on the internet, and compared the toxicity data as well as the biodegradability and bioaccumulation data for each. All products are required per the Occupational Safety and Health Administration (OSHA) to have an MSDS, and these documents contain basic information about the product and its hazards, how to handle spills, and first aid in the event of contact with skin or ingestion.

MSDS's also contain toxicity data, which is rigorously collected in laboratory tests by exposing terrestrial and aquatic organisms, usually rabbits, rats and certain species of fish. There's the LD50, or Lethal Dose 50, in which rats are fed the chemical until they eat enough to kill 50% of them. The LD50 number is expressed in mg of chemical per kg of body weight, and the lower the number, the more toxic the chemical. Aquatic toxicity is tested by increasing the concentration of a chemical in water until half of the fish die after 96 hours of exposure, expressed as LC50, or Lethal Concentration 50, reported in parts per million, billion or trillion, depending on how toxic the chemical is. For both of these toxicity methods, the lower the number, the more toxic the product.

Biodegradability is also tested, with a biodegradability of less than 3 days in activated sludge indicating that the material will biodegrade by the time it's discharged from the wastewater plant into receiving waters. Another thing found on MSDS's is whether it's OK to discharge the material to a sewer drain or waterways.

In yet another "loophole", while it's absolutely required to have an MSDS for every chemical, it's not absolutely required to provide information in every category, and, as often as not, the toxicity and biodegradability data will be missing, with a space filler of "No data available". Which means to me that a significant share of these chemicals haven't even been investigated with basic toxicity testing, yet here we are using them on our bodies and in our homes and disposing of them down the sewer. And that's perfectly legal? Or is it perfectly irresponsible for us to buy and use this stuff?

Typical Big Corp MSDS Toxicity Disclaimers

- No data available
- IARC – No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
- OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.
- To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Among my personal favorite examples of the big corp out of hand disclaimers symbolic of rejection of responsibility would be the statements that "no component at levels greater than or equal to 0.1% is identified as probably, possibly or confirmed human carcinogen by 'whoever'". So, no data available, no studies done, just go for it. A couple problems come to mind, at least for me. For one

thing, the really nasty petrochemicals kill at concentrations far less than 0.1%, which is actually a lot when we're talking about toxins. 0.1% is equivalent to 1,000 parts per million (ppm), and the really bad chemicals kill at much lower concentrations, parts per *billion* or parts per *trillion*. And, the 0.1% of an individual chemical is one thing, but doesn't account for all the other nasty chemicals that are either in the same product at less than 0.1%, or are dumped into the same water with all the other products that everybody else is using, and the cumulative effects of all of them. What if you have 0.1% of this, that and the other all together in one toxic stream, with fish and wildlife depending on that water to survive? Really? Humans get to treat the water to remove most of the toxins, but what about the wildlife?

Just Say No

I hope you now have a better sense of how our personal spending and buying habits can either help our planet or contribute to its demise. While it's certainly confusing to look at all the products and all the different companies out there, I offer the following advice, for what it's worth.

- Buy local as much as possible, from local companies and vendors.
- Buy products that are as simple as possible. Avoid processed foods.
- Buy organic. If you buy local, organic products may not necessarily be certified, so ask the vender.
- When buying meat, make sure it's certified as responsible. There are many different certifications, depending on the meat.
- For cleaning and personal care products, only buy responsible brands that list their ingredients on the labels. That's a lot easier than digging into chemicals and MSDS's.
- Use the "Better World"⁴ website to find out how national businesses and brands stack up as far as ethics and responsibility.