

## Landfills and Injustice: The State of Burying Trash in the United States

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### Introduction: The False Choice at the Root of Our Waste Crisis

The toxic misconception that trash from our homes and businesses is inevitable – that it must go "somewhere" – has helped create a waste crisis. The waste industry, plastic manufacturers, and major consumer brands profit from this myth as they convince policy makers that we can do little more than choose between burying or burning all that trash. As a result, we treat a LOT of waste as unavoidable.

The U.S. Environmental Protection Agency (EPA) estimates that the country produces about 300 million tons of household and commercial waste each year; and that we bury about half of all that waste in landfills. But, as it turns out, those numbers significantly underestimate the scope of the problem. In fact, the U.S. may be burying more than two-and-a-half times as much trash as the federal government suggests.

The landfills taking in all this trash are in communities – near homes, schools,

workplaces, parks, and waterways. And these facilities can have devastating impacts on the people living nearby, on our environment, and on the climate.

But not all landfills are the same. Over the past decades, a small number of enormously profitable waste companies have consolidated their control over the industry. These companies increasingly rely on disproportionately large "mega landfills" to fuel their profit-driven business model. In fact, the 50 largest landfills in the U.S. (out of more than 1,200 landfills actively accepting trash) are burying more than 27% of all the waste buried in the U.S. each year.

Just as with other false solutions like <u>trash</u> <u>incinerators</u>, gasification, pyrolysis, and socalled "<u>chemical recycling</u>" facilities, these mega landfills deliberately target and pollute historically marginalized communities as "sacrifice zones."

## IMPACTS OF BURYING WASTE

### CLIMATE & ENVIRONMENT

Burying carbon-rich waste, like food and paper products, in landfills generates methane – a significant driver of the climate crisis. In fact, **landfills are the third largest source of methane emissions in the U.S.** Landfills also generate leachate, a toxic garbage brew formed when water in trash and from rain and snow mixes with waste. Toxic chemicals in leachate – including lead, mercury, PCBs, and PFAS ("forever chemicals") – end up in our environment when landfills leak and when they send leachate to wastewater treatment plants. Graphic: Created in C

### PUBLIC HEALTH

In addition to methane, landfills also poison our air with toxic chemicals such as hydrogen sulfide, benzene, and vinyl chlorides. These, and other toxics in landfill air emissions, **can cause lung, heart, and neurological damage.** Many of them are **also known to cause cancer.** Several of the toxic chemicals in leachate – including PFAS, which are linked to dozens of devastating health impacts – end up in our food supply and our drinking water.

### EQUITY & JUSTICE

Municipal solid waste landfills are disproportionately located in communities of color and low-income communities in the U.S. This is especially true for the 50 largest "mega landfills," more than half of which are in communities of color.

### Overview

More than any other false solution for waste "management," landfills are treated as an inevitability. It isn't hard to see why – humans have been burying their trash for millennia. Plus, there's nothing more straightforward than digging a hole, backing up a truck, and dumping trash. But this antiquated, seemingly simple approach to trash has serious impacts on public health and our climate.

Despite desperate <u>industry attempts</u> at <u>greenwashing</u>, neither landfills nor trash incinerators can escape two fundamental

truths: 1) toxics in, toxics out; and 2) carbon in, carbon out. Simply put, when you bury or burn trash filled with toxic chemicals and carbon, you inevitably generate toxic pollution and climate-damaging emissions.

And make no mistake, our trash is filled with toxic chemicals and carbon. Although the U.S. Environmental Protection Agency (EPA) misleadingly classifies most of the waste in our lives as "non-hazardous," nearly all waste, including household trash, contains tens of thousands of harmful substances.

### What Type of Waste are We Talking About?

In the U.S., most waste is regulated under a federal law known as the Resource Conservation and Recovery Act (often referred to as "RCRA"). This law gives EPA authority over the collection and disposal of "<u>solid waste</u>" – a broad category that includes household trash as well as industrial, commercial, mining, and agricultural wastes, construction and demolition debris, and sewage sludge. The Resource Conservation and Recovery Act divides "solid waste" into two main categories: "Hazardous waste" and "non-hazardous waste." Hazardous waste is defined using a limited list of waste types as designated by EPA. Non-hazardous waste includes all other types of solid waste.

This issue brief focuses on a specific type of non-hazardous solid waste: "Municipal solid waste." According to EPA's <u>definition</u>, municipal solid waste includes household garbage, as well as commercial trash from businesses, restaurants, schools, and hospitals. It is the trash in our daily lives and what most of us think of when we hear the word "waste." EPA's definition does not include industrial waste or <u>construction and demolition debris</u>, which are regulated separately.

Why focus on municipal solid waste in this brief? Precisely because this is the waste in our daily lives. It is the waste from our homes and businesses. The waste that our state and local governments have the most power to reduce and divert. And the waste that is buried and burned near where we live, work, play, and go to school.

The plastic packaging and products in our waste bins are filled with <u>dangerous</u> <u>chemicals</u> that can cause serious health impacts throughout their lifecycle. Clothing and other textiles that all too easily end up in our trash similarly contain a <u>host of toxics</u>. <u>Electronic waste</u> can contain lead, mercury, arsenic, chlorofluorocarbons, and other hazards. Even our paper packaging is riddled with <u>toxic chemicals</u>. And those are only a few examples.

After waste companies bury this noxious trash in landfills, the liquids in our garbage, along with water from rain and snow, percolate through the heap. This generates leachate, or toxic garbage brew. Unsurprisingly, this brew carries with it all the <u>dangerous chemicals</u> in landfills, including lead, mercury, benzene, toluene, PCBs, dioxins, and especially <u>per-</u> <u>and polyfluoroalkyl substances</u> (PFAS, or "forever chemicals"). Whether leachate leaks out of a landfill (yes, <u>all landfills leak</u>) or is collected and sent to a <u>wastewater treatment</u> <u>plant</u>, many of those toxics, especially PFAS, <u>end up in our environment</u> and even our drinking water.

But the toxic garbage brew percolating through landfills is only part of the overall

problem. Landfills are also significant sources of toxic and climate-damaging air pollution. As carbon-rich waste – especially food and other organics like yard waste, wood, paper, and cardboard – breaks down in the absence of oxygen, it <u>generates gases</u> like carbon dioxide and methane. In fact, landfills are the third largest source of <u>methane emissions</u> in the U.S., accounting for 17% of all methane emissions in the country. According to the Environmental Protection Agency, in 2022 these methane emissions were equivalent to 119.8 million metric tons of carbon dioxide. That's about the same climate impact as adding almost 28 million new cars to the road.

EPA is probably underestimating the problem by a significant margin. Landfills are likely releasing <u>twice as much</u> methane as EPA <u>estimates</u>. On top of that, methane and carbon dioxide <u>emissions</u> at landfills are accompanied by other hazardous emissions like hydrogen sulfide, benzene, toluene, ethyl benzene, and vinyl chloride.

When all these noxious substances are released, they spread through the air and our environment. And **communities closest to landfills are burdened by the highest concentrations of these toxics.** 



### Trash and Landfills in the U.S.

To understand the real-world impacts of municipal solid waste landfills in the U.S., we first need to ask: How much waste are these landfills burying each year? After all, the more toxic chemicals and carbon we put in, the more toxic chemicals, carbon dioxide, and methane we get out. Unfortunately, due to poor tracking and reporting, there isn't an easy answer to this question.

According to EPA's "Facts and Figures about Materials, Waste and Recycling," the U.S. produces about 300 million tons of municipal solid waste per year – 146.1 million tons of which is buried in landfills. But that doesn't even come close to telling the whole story.

In addition to its waste "facts and figures," EPA has published two primary data sets related to landfills: the Landfill Methane Outreach Program, which includes information on 2,637 municipal solid waste landfills, and the Enforcement and Compliance History Online (ECHO) database, which collects information on more than one million federally regulated facilities across the U.S., including 2,666 landfills. These data sets help paint a more complete picture.

Of the 2,637 landfills in EPA's Landfill Methane Outreach Program <u>data set</u>, 1,265 are listed as "open," meaning they actively accept and bury trash. Of those landfills, 1,202 report data on how much waste they accept each year. Across all 1,202 landfills, the total amount of waste buried each year comes to 371.5 million tons – more than two-and-a-half times the estimate in EPA's "facts and figures."

Those 371.5 million tons are not, however,

spread equally among all 1,202 open landfills. Far from it. Instead, the trash-burying business is increasingly dominated by "mega landfills" – colossal facilities that bury a disproportionate amount of trash; often importing that waste from far away cities and states. In fact, the 50 mega landfills that accept the most waste annually, according to EPA's Methane Outreach Program database, account for 101.2 million tons, or more than 27%, of all the municipal solid waste buried in the U.S. each year.

EPA's Methane Outreach Program database also reports the "design capacity" of 980 open landfills – measuring the total weight of waste a landfill is designed to accept over the course of its lifespan. A similar "mega landfill" trend emerges in these data. The 50 landfills with the largest design capacity account for 33.3% of all reported landfill capacity in the U.S. On average, according to EPA's data, these 50 landfills are projected to stay open until the year 2126. Meaning, over the next 100 years, just 50 facilities are planning to bury one third of all the trash sent to U.S. landfills.

This, more than anything else, is the prevailing pattern in how the U.S. buries its trash. Corporate owners of mega landfills ship and bury ever-increasing amounts of trash to maximize their profits – all at the expense of nearby communities, the environment, and our climate. What's more, this mega landfill market is largely controlled by a small number of immensely profitable, waste companies.

<u>Waste Management, Inc.</u>, which earned \$20.4 billion in revenue in 2023 and bills itself as "North America's largest environmental solutions provider," owns and/or operates 22 of the 50 landfills that accept the most waste annually in the U.S., as well as 20 of the 50 landfills with the largest design capacity. <u>Republic Services, Inc.</u>, which reported \$14.9 billion in revenue in 2023, owns and/ or operates 11 of the 50 landfills that accept the most waste annually in the U.S., as well as 15 of the 50 landfills with the largest design capacity.

Of the 1,202 open landfills that report annual waste tonnage in EPA's methane database, 208 are owned by either Waste Management or Republic Services. Combined, these 208 landfills bury 157.4 million tons of waste each year. Meaning, according to EPA's Methane Outreach Program data, together Waste Management and Republic Services are shipping and burying more than 42% of all the municipal solid waste landfilled in the U.S.

The era of small publicly owned and operated landfills is truly a thing of the past. Burying trash is big business – fueled by the rise of mega landfills and enormously profitable waste companies. And like any other business model that puts profit over people, waste companies that own and operate landfills often target overburdened, historically marginalized communities to shoulder the devastating impacts that come with burying 371.5 million tons of trash each year.



### A Patchwork of Injustice

The waste industry has <u>deep-rooted</u>, <u>well-documented</u> connections to injustice and environmental racism. For <u>almost 40 years</u>, <u>study</u> after <u>study</u> has shown that race and income are highly correlated with proximity to polluting industrial facilities. None of which has come as a surprise to the communities in these "<u>sacrifice zones</u>."

The waste industry has <u>acknowledged</u> that it deliberately targets historically marginalized communities, under the theory that socioeconomically privileged communities are more likely to successfully oppose proposed landfills and incinerators. As a result, the industry has, for decades, intentionally built waste facilities in environmental justice communities. The inequitable patterns of <u>incinerators</u> and <u>hazardous waste landfills</u> have been wellstudied – and for good reason. Yet, with a <u>few</u> <u>key exceptions</u>, less attention has been paid to the landscape of inequity around municipal solid waste landfills, despite their status as the predominant "default" for trash disposal.

The Environmental Protection Agency's (EPA's) datasets can once again shed light on that landscape. The patterns in those data, unsurprisingly, resemble those of other waste facilities. Across the U.S., most municipal solid waste landfills are in environmental justice communities. Communities of color are significantly more likely to host a municipal solid waste landfill, especially a mega landfill, than the average community in the U.S.

### Defining "Environmental Justice Community"

There is no single definition of an "environmental justice community." Many states and cities have set their own standards using race and income criteria. This issue brief follows the lead of states like Connecticut, Massachusetts, Michigan, and especially New Jersey. As the term is used in this issue brief, a facility is in an environmental justice community if, according to data in EPA's <u>ECHO database</u>, the population within a 3-mile radius of the facility is: a) 35% or more "low-income," defined as an income less than two times the federal poverty level; OR b) 40% or more persons of color.

Of the 2,666 landfills in EPA's ECHO database, 2,577 report demographic data for the population living within a 3-mile radius. 1,327 (or 51%) of these landfills are in environmental justice communities. 837 of these (or 32%) are in communities where 40% or more of residents identify as persons of color. These patterns are particularly true for mega landfills. Of the 50 largest landfills in the U.S. based on total waste accepted each year, 29 (or 58%) are in environmental justice communities. 27 of these (or 54%) are in communities of color. And of the 50 largest landfills based on design capacity, 30 (or 60%) are in environmental justice communities. 26 of these (or 52%) are in communities of color.

On their own, these patterns paint a picture of an inequitable and unjust industry – especially with respect to mega landfills. That picture comes more clearly into focus, however, when we compare these patterns to demographic data for counties throughout the country.

### According to U.S. Census Bureau data,

47.7% of U.S. counties meet the definition of environmental justice community used in this report. Only 15.4% of U.S. counties, however, are comprised of 40% or more persons of color. And yet, 54% of mega landfills – and 32% of all municipal solid waste landfills – are in communities of color. This patterned discrepancy shows that the U.S. waste industry is significantly more likely to build and operate a mega landfill in a community of color than in a whiter, wealthier community. Other studies of both <u>hazardous</u> and <u>nonhazardous</u> landfills have reported similar conclusions.

As waste giants continue to consolidate their grip on the landfill industry and rely on mega landfills to juice their profits, already overburdened, historically marginalized, and deliberately targeted environmental justice communities pay the price.



## Number of Top 50 Mega Landfills in Each State



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Of the top 50 mega landfills in the United States e are located in Environmental Justice Communities.

Of those 29 mega landfills



are located in communities of color.

Source: U.S. Environmental Protection Agency's Landfill Methane Outreach Program

# 50 Largest U.S. Landfills

## by Waste Accepted Per Year

Rank	Name	Location	Waste Accepted (per year)	Owner/Operator	Environmental Justice Community?
1	Loess Hills	Malvern, IA	6.3 million	Iowa Waste Services LLC	No
2	Woodland Meadows	Wayne, MI	4.0 million	Waste Management	No
3	Fairless	Morrisville, PA	3.6 million	Waste Management	Yes
4	El Sobrante SLF	Corona, CA	3.4 million	Waste Management	Yes
5	Pine Tree Acres	Lenox, MI	3.2 million	Waste Management	No
6	Winnebago	Rockford, IL	3.0 million	Waste Connections Inc./ Winnebago Landfill Co.	No
7	Columbia Ridge	Arlington, OR	2.6 million	Waste Management	No
8	Apex Regional	Las Vegas, NV	2.6 million	Republic Services	Yes
9	Apex Sanitary	Amsterdam, OH	2.6 million	Interstate Waste Services	No
10	Rumpke Sanitary	Cincinnati, OH	2.5 million	Rumpke	Yes
11	Sunshine Canyon	Sylmar, CA	2.5 million	Republic Services	Yes
12	Sunny Farms	Fostoria, OH	2.3 million	WIN Waste Innovations	No
13	Okeechobee	Okeechobee, FL	2.2 million	Waste Management	Yes
14	Frank R. Bowerman	Irvine, CA	2.2 million	County of Orange Waste & Recycling	Yes
15	Olinda Alpha	Brea, CA	2.1 million	County of Orange Waste & Recycling	Yes
16	Denver Arapahoe Disposal Site	Aurora, CO	2.1 million	City and County of Denver/ Waste Management	Yes
17	Newton County Landfill	Brook, IN	2.0 million	Republic Services	No
18	Sampson County Disposal	Roseboro, NC	2.0 million	GFL Environmental	Yes
19	Roosevelt Regional	Roosevelt, WA	2.0 million	Republic Services	Yes
20	Simi Valley	Simi Valley, CA	2.0 million	Waste Management	No

21	Chiquita Canyon	Castaic, CA	2.0 million	Waste Connections Inc.	Yes
22	Arbor Hills Landfill	Northville, MI	2.0 million	GFL Environmental	No
23	Keystone Sanitary	Dunmore, PA	1.9 million	Keystone Sanitary Landfill, Inc.	No
24	Skyline	Ferris, TX	1.9 million	Waste Management	Yes
25	Front Range Landfill	Erie, CO	1.9 million	Waste Connections Inc.	No
26	Tunnel Hill Reclamation	New Lexington, OH	1.9 million	WIN Waste Innovations	Yes
27	Carleton Farms	New Boston, MI	1.8 million	Republic Services	No
28	Seneca Meadows	Waterloo, NY	1.8 million	Waste Connections Inc.	No
29	McCarty Road	Houston, TX	1.6 million	Republic Services	Yes
30	King George	King George, VA	1.6 million	King George County/ Waste Management	No
31	Monarch Hill Landfill	Pompano Beach, FL	1.5 million	Waste Management	Yes
32	Altamont	Livermore, CA	1.5 million	Waste Management	Yes
33	Pine Bluff	Ball Ground, GA	1.5 million	Waste Management	No
34	Turnkey	Rochester, NH	1.5 million	Waste Management	No
35	Chesser Island	Folkston, GA	1.5 million	Waste Management	Yes
36	Butterfield Station	Mobile, AZ	1.4 million	Waste Management	Yes
37	Otay	Chula Vista, CA	1.4 million	Republic Services	Yes
38	McCommas Bluff	Dallas, TX	1.4 million	City of Dallas	Yes
39	Medley	Medley, FL	1.4 million	Waste Management	Yes
40	Johnson County	Shawnee, KS	1.4 million	Waste Management	No
41	Blue Ridge	Fresno, TX	1.4 million	Republic Services	Yes
42	Tessman Road	San Antonio, TX	1.3 million	Republic Services	Yes
43	Northwest Regional	Surprise, AZ	1.3 million	Waste Management	No
44	Lockwood	Sparks, NV	1.3 million	Waste Management	Yes
45	Covel Gardens	San Antonio, TX	1.3 million	Waste Management	Yes
46	Newby Island	Milpitas, CA	1.3 million	Republic Services	Yes
47	Tower Landfill	Commerce City, CO	1.3 million	Republic Services	Yes
48	Noble Road	Shiloh, OH	1.3 million	Rumpke	No
49	Atascocita	Humble, TX	1.3 million	Waste Management	Yes
50	J.E.D.	St. Cloud, FL	1.3 million	Waste Connections Inc.	No



### **CASE STUDY: OKEECHOBEE LANDFILL**

### A Classic Tale of "It Has to Go Somewhere"

Okeechobee landfill, in Okeechobee, Florida, opened in 1981 as a 12-acre facility owned and operated by Okeechobee County. Its story echoes countless other mega landfills across the country. The county sells the landfill to Chambers Waste Systems, which is later purchased by USA Waste, which is later purchased by Waste Management. And a 12-acre local dump turns into a <u>970-acre</u> monster.

The latest step in Okeechobee landfill's unchecked growth came in February 2023 when, about 120 miles to the south in Doral, Florida, a <u>fire</u> destroyed one of the state's ten waste incinerators. Rather than implementing commonsense measures to reduce and divert waste, Miami-Dade County responded by making the same <u>false choice</u> that communities have been boxed into for decades. It chose to bury its waste instead. And that has meant <u>shipping trash</u> from the seventh-most populous county in the U.S. two hours north to the Okeechobee landfill.

As <u>trash incinerators</u> and smaller, older landfills across the U.S. close, mega landfills pounce and convince communities to ship their waste hundreds of miles away, instead of pursuing Zero Waste reforms. The closure of aging, polluting incinerators is unquestionably a cause for celebration. But when states, cities, and counties refuse to look beyond the false choice between shipping their waste to a mega landfill or building a new incinerator – and balk at implementing cost-effective, safe, and equitable Zero Waste reforms – communities like Okeechobee pay the price.

### **Size Isn't Everything**

Landfill size provides some insight into the impact a landfill may have on nearby communities. A bigger landfill means more trucks, more <u>leachate</u> (toxic garbage brew), more toxics, and more opportunities for accidents. But it is not the only important metric. The Environmental Protection Agency (EPA) also has data, through its <u>Greenhouse</u> <u>Gas Reporting Program</u> and <u>Facility Level</u> <u>Information on Greenhouse gases Tool</u>, on the air emissions from many landfills throughout the U.S.

Although EPA's metrics for evaluating landfill emissions are deeply flawed, they provide some insight into where landfills with the highest emissions are located. And, once again, those landfills are predominantly in environmental justice communities. Of the 25 landfills with the highest methane emissions in 2022, according to EPA data, **14 (or 56%) are in environmental justice communities**. 10 of these (or 40%) are in communities where 40% or more of residents identify as persons of color. Combined, methane emissions in 2022 from just these 25 landfills were equivalent to 10.5 million metric tons of carbon dioxide, roughly the same as adding **2.5 million cars** to the road or burning **11.5 billion pounds of coal**.

Importantly, these emissions aren't just damaging our climate. Because landfill emissions contain toxic chemicals like benzene, toluene, and vinyl chloride, the more methane and carbon dioxide a landfill emits, the more likely it is to be spewing other dangerous toxics into nearby communities.

### **Dominating the Landfill Industry**

42%

of that waste is buried by Waste Management and Republic Services.

Source: U.S. Environmental Protection Agency's Landfill Methane Outreach Program

here ar

**million tons** of municipal solid waste buried in 1,202 U.S. landfills each year.

# **\$35 BILLION**

the combined revenue for Waste Management and Republic Services in 2023.

33

27%

of that waste is buried in the 50 largest mega landfills.

the number of the 50 largest mega landfills controlled by either Waste Management or Republic Services.

# U.S. Landfills with Highest Methane Emissions in 2022

Rank	Name	Location	Methane Emissions (Metric Tons CO2 Equivalent)	Environmental Justice Community?
1	CGS	Morristown, IN	1,085,940	No
2	Brevard County Disposal	Cocoa, FL	650,871	No
3	Apex Sanitary	Amsterdam, OH	627,055	No
4	Fort Bend Regional	Needville, TX	485,940	Yes
5	McCommas Bluff	Dallas, TX	481,628	Yes
6	East Baton Rouge Parish North	Zachary, LA	437,055	Yes
7	Sunshine Canyon	Sylmar, CA	432,901	Yes
8	Olinda Alpha	Brea, CA	421,147	Yes
9	Tomoka	Port Orange, FL	420,448	No
10	Taylor County	Mauk, GA	409,290	Yes
11	Polk County	Winter Haven, FL	399,257	Yes
12	Frank R. Bowerman	Irvine, CA	397,002	Yes
13	Lycoming County	Montgomery, PA	377,705	No
14	Noble Road	Shiloh, OH	369,193	No
15	Modern	Model City, NY	364,241	No
16	Seminole Road	Ellenwood, GA	351,712	Yes
17	Beech Hollow	Wellston, OH	325,944	Yes
18	121 Regional Disposal	Melissa, TX	325,416	No
19	Blue Ridge	Fresno, TX	319,681	Yes
20	ACMS	Lake Panasoffkee, FL	313,746	Yes
21	Cedar Trail	Bartow, FL	301,571	No
22	Osceola	Geneva, FL	297,592	No
23	River Birch	Avondale, LA	293,771	Yes
24	McCombs	El Paso, TX	290,714	Yes
25	Cowlitz County	Castle Rock, WA	290,551	No

### **CASE STUDY: SUNSHINE CANYON**

#### When Greed, Landfills, and Climate Damage Collide

As with many mega landfills, Sunshine Canyon began as a local landfill, first owned and operated by the city of Los Angeles in the 1950s. A private waste company, Browning-Ferris Industries, purchased the landfill in 1966 and significantly expanded the size and daily waste intake of the landfill through the 1990s. Allied Industries purchased Browning-Ferris in 1999, and then Republic Services purchased Allied Industries in 2008. And in 2009, Republic Services merged Sunshine Canyon with a neighboring landfill to create what was, at the time, the largest landfill in the entire country.

This is a typical roadmap for many of today's mega landfills. A private company purchases a small, publicly owned facility, and then a waste giant comes along and gobbles up the enterprise. Along the way, a local public service transforms into a behemoth that reaps massive profits through repeated expansions and consolidation. Meanwhile, nearby residents who, in the case of both Sunshine Canyon and Los Angeles' other mega landfill, Chiquita Canyon, are predominantly Latinx, bear the environmental and health impacts of this profitdriven exponential growth.

But the story doesn't end there. In 2022 and 2023, "atmospheric rivers" <u>fueled</u> <u>in part by climate damage</u> brought repeated heavy rains to Sunshine Canyon. All that excess rain – significantly more than the area usually receives – <u>seeped</u> <u>into the landfill</u>, generating more leachate, and fueling the production of more methane, hydrogen sulfide, and other noxious gases.

As a result, nearby residents have been blanketed in landfill gas – impacting their health, and sometimes even their ability to leave their homes. The cruel irony, of course, is that mega landfills like Sunshine Canyon – which is 7th on the list of landfills with highest methane emissions – are damaging our climate and helping spur the weather events that created this crisis in the first place.

### **Conclusion: What Comes Next?**

This much is clear: The status quo needs to change. We need to stop treating waste as inevitable. When we assume that waste will always exist, and that it just needs to go "somewhere," mega landfills proliferate, the waste industry makes billions, and communities suffer.

So, what can we do? Let's start by recognizing that we have better choices. Real Zero Waste systems like food waste prevention and recycling, packaging reduction, reuse and refill infrastructure, bottle bills, and pay-as-you-throw programs can help stop trash before it starts. And that's just the tip of the iceberg. These systems, if implemented throughout the U.S., would be a great start. Less trash would mean fewer, smaller municipal solid waste landfills.

If we look once more to the U.S. Environmental Protection Agency's Facts and Figures, food waste, other organics like yard trimmings, single use containers, and packaging, make up about 53% of our municipal solid waste. Through reduction, diversion, reuse, and recycling, these Zero Waste systems could eliminate more than 196 million of the 371 million tons of trash buried in municipal solid waste landfills each year. That's almost twice the total tonnage buried by the 50 largest mega landfills.

Meanwhile, better laws and regulations around the toxics in our lives and in landfills could go a long way toward mitigating

the risk from existing landfills. Laws that empower and protect environmental justice communities saddled with landfills and other waste facilities are also an important step forward.

When we prioritize waste reduction and diversion, protection from toxics, and the empowerment of impacted communities, we can realize a better path forward. One where we aren't forced to choose between burying or burning trash, but instead, put communities over waste industry profits.

