

**From:** [Debra Higbee](#)  
**To:** [SHEPHERD Gabe](#); [nancywise@bentoncountyor.gov](mailto:nancywise@bentoncountyor.gov); [MALONE Patrick](#)  
**Cc:** [Benton Public Comment](#)  
**Subject:** Oregon Chapter Sierra Club Letter about Coffin Butte  
**Date:** Friday, June 20, 2025 11:05:46 AM  
**Attachments:** [Benton County Commissioners Letter on Coffin Butte Expansion.docx \(1\).pdf](#)  
[WHERE THE GARBAGE GOES HCN.pdf](#)

---

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Commissioners Shepherd, Wise, and Malone,

Please find attached a letter from the Oregon Chapter Sierra Club regarding a recent article about the Coffin Butte landfill, and a few ideas that we would like to pass along to you.

We appreciate this opportunity, and please let us know if you have any questions.

Sincerely,  
Debra



**Debra Higbee**  
Conservation Committee Chair  
Oregon Chapter Sierra Club  
Pronouns: she/her  
**Phone (541-554-6979)** | Pacific  
[ConservationCommittee@oregon.sierraclub.org](mailto:ConservationCommittee@oregon.sierraclub.org)



June 20, 2025

Benton County Commissioners  
4500 SW Research Way  
Corvallis, OR 97333

*Submitted via email*

Dear Commissioners Malone, Shepherd, and Wyse,

On behalf of the 58,000 members and supporters of the Oregon Chapter of the Sierra Club, we would like to bring your attention to some important information regarding the Coffin Butte Landfill expansion. An in-depth article entitled "[Where the Garbage Goes](#)," giving a local view of the issues and concerns surrounding the landfill, was recently published by High Country News. We urge you to read and consider the concerns raised in the article.

We would also like to encourage you – before you make a determination regarding the expansion of the landfill – to do the following:

1. First, clarify whether there is a need for expansion by preparing a zero waste plan (see [Eight Steps on the Path to Zero Waste](#)<sup>1</sup>) that includes values and a timeline with population and employment trends for source reduction, reuse, recycling, and composting.
2. Extend the life of the Coffin Butte landfill through expanded community and business recycling and composting programs.
3. Work with Republic Services to ideate and implement intake-reduction measures across the Coffin Butte watershed, and/or charge significant landfill fees to discourage

---

<sup>1</sup> Eight Steps on the Path to Zero Waste, Zero Waste USA.

<https://zerowasteusa.org/wp-content/uploads/2023/04/ZWUSA-8-Steps-on-the-Path-to-Zero-Waste.pdf>

out-of-area waste flowing there, which can then be used to help fund new recycling and composting programs.

4. Seek mitigation of the negative aspects of the proposed landfill site, such as improved buffers, more and better emission controls (including continuous emission monitoring), and more stringent oversight.

For helpful, detailed information, please review the [Sierra Club's Zero Waste Policy](#).<sup>2</sup>

Please consider these recommendations before approving an expansion of the Coffin Butte landfill. A decision to NOT expand the landfill, and to institute a zero waste program is important because it minimizes environmental impact, conserves resources, and can lead to economic and social benefits. By focusing on reducing, reusing, and recycling, Benton County will reduce landfill waste, greenhouse gas emissions, and the need to extract and process new materials. This approach benefits public health and promotes a circular economy, potentially creating jobs and strengthening local communities.

Signed,

A handwritten signature in black ink, appearing to read 'Damon Motz-Storey', with a stylized, looping flourish at the end.

Damon Motz-Storey  
Oregon Chapter Director, Sierra Club

cc: Planning Commission

---

<sup>2</sup> The Sierra Club's Zero Waste Policy

<https://www.sierraclub.org/sites/default/files/Sierra%20Club%20Zero%20Waste%20Policy%20December%202019.pdf>



An aerial photograph showing a large-scale landfill expansion project. The foreground and middle ground are dominated by dark, uneven terrain of waste material, with several sections covered in white plastic liner. To the left, a green, grassy hillside slopes down towards the waste area. In the background, a more developed area with roads, parking lots, and some buildings is visible, surrounded by green fields and trees. The overall scene depicts a significant environmental impact and land use change.

# WHERE THE GARBAGE GOES

Amid severe rollbacks of federal environmental protections, a community battling a local landfill expansion seeks to safeguard its own backyard — and everyone else's.

BY JACLYN MOYER

PHOTOS BY WILL MATSUDA

DRONE PHOTOS BY  
EVAN BENALLY ATWOOD





■ The Coffin Butte Landfill, located near the community of Soap Creek in Oregon's Willamette Valley, takes in nearly a third of the state's trash.





**IN THE SPRING OF 1987**, Cathy Holdorf and her husband, John, drove to the end of a gravel road in Soap Creek, Oregon, a rural community 10 miles north of Corvallis. Here, where the smooth spread of the Willamette Valley begins to buckle against the Coast Range, they'd come to look at a property for sale: 30 acres of oak savanna draped over a south-facing hillside. They parked at the foot of the hill and set out walking. The lower land was intriguing — iron-doored bunkers from a World War II-era training camp cut into the earth and a creek ran nearby — but it wasn't until they climbed the slope that they knew they'd found what they were looking for.

On a knoll partway up a ridge called Poison Oak Hill, they stood to take in the view: Slender meadows wove through a tumble of foothills. Beyond, wooded ridges stacked deep blue into the distance. Even before starting back down, they'd begun to dream of a home here: a woodshop, a house, a garden.



The property was owned by Robert and Daniel Bunn. Known around town as the Bunn Brothers, these siblings also owned the local landfill, which was dug into the south face of Coffin Butte just across the valley from Poison Oak Hill. Despite its proximity — less than a mile north — the dump

didn't immediately concern the Holdorfs. From where they stood that day, it was out of sight. It was relatively small, locally owned, and, they'd been told, soon to close. Besides, over 100 undeveloped acres, also owned by the Bunn, spanned between the dump and the property for sale. This land, the Bunn

■ Cathy and Rose Holdorf, at their home in Soap Creek Valley, Oregon, next to the proposed landfill expansion site.

assured the Holdorfs, would always serve as a buffer: No trash would ever be placed there.

"We were just so convinced that it was a small dump, that it was being run well and would sunset soon," Cathy told me recently. "Maybe it was naive, but we didn't even consider that all of that could change."

The Holdorfs bought the property and began to build a home for their family. Cathy hand-drew the blueprints. John built nearly everything himself, picking through stacks of lumber at the local mill for the best boards. After the house was finished, the couple bought the adjacent 30 acres of pastureland, which they would later reforest with native pine, ash, cedar and fir. "We thought of it as a legacy home, something we'd pass on to our children," Cathy said. The place was the embodiment of a dream long held, and the



Holdorfs expected to spend the rest of their lives there.

The first decade the family lived in Soap Creek, relations with the landfill were just as they'd been promised. The Bunns regularly tested the Holdorfs' well water. When the brothers began a composting operation, they gifted the family truckloads of mulch. The Bunns even allowed the Holdorfs to lease the buffer acreage to graze cattle, charging an annual fee of \$1.

The dump on Coffin Butte, however, showed no sign of closing. Then, in December of 1999, the Bunn Brothers announced they'd sold the landfill to Allied Waste Industries, the second-largest waste-management corporation in the world.

A century earlier, Coffin Butte looked like any other ordinary hill: A swell of land stewarded by the Kalapuya people for thousands of years rising some 500 feet above the valley floor. The hill's north side was forested with oak and fir while the southern slope bore open grassland where, in the early 1900s, a farming family ran cattle.

In those days, no designated trash disposal site existed in the region. Settlers simply dumped their garbage into a river or a roadside ditch. Before plastics and disposable packaging, there was much less to throw away. Still, as the town grew, casual dumping became a problem. "Don't dump your trash, dead cats, dogs, and other rubbish onto the vacant lot just over the fence," counseled the *Corvallis Gazette* in 1906. Later, the paper recommended burning garbage. In the 1930s, a sanctioned dump site was established south of town, but by 1950 it had become horribly infested with rats — an estimated 200,000 — which were aggressively poisoned before authorities burned the place to the ground.

Meanwhile, in 1941, at the start of U.S. involvement in WWII, the federal government acquired Coffin Butte and the surrounding 56,000 acres to establish a military base called Camp Adair. To deal with the trash generated by the camp's 40,000 residents, the military set up a burn pile on Coffin Butte's southern slope. When the war ended, the camp was dismantled but the burn pile endured, becoming the county's designated disposal site after the rat-infested dump was shuttered.

Camp Adair marked the beginning of the transformation of Coffin Butte, but this

wasn't the only way WWII would alter the future of the hill: During the war, military demand for synthetic materials like nylon and plexiglass drove a 300% increase in plastic production. When the war ended, these materials migrated into consumer goods, and their production barreled onward.

The Bunn Brothers bought the Coffin Butte disposal site in 1952. Dan Bunn, the elder of the two, had a history in waste management. When he was 14, he started a garbage service in his hometown, Wishram, Washington. Too young for a driver's license, he hired a 16-year-old to do the driving. In the Willamette Valley, Bunn's entrepreneurial spirit persisted, and after buying Coffin Butte the brothers established several waste-management businesses across the region.

By this time, the garbage problem in Oregon and beyond had ballooned. In 1965, the average American was generating 3 pounds of waste each day and pollution caused by the prevailing methods of dealing with all this garbage — open burning, unlined dumps — led to the first federal standards for landfills: the Solid Waste Disposal Act of 1965. After the establishment of the Environmental Protection Agency in 1970, this regulation was expanded into the Resource Conservation and Recovery Act of 1976, which remains the nation's primary law governing waste disposal.

To ensure compliance with emerging federal regulations, in 1971 the Oregon Department of Environmental Quality (DEQ) began requiring permits for landfills. In turn, many casual dump sites around the Willamette Valley closed and officials representing several counties were tasked with finding an appropriate site for a regional landfill. This proved difficult: The Willamette Valley is made up of floodplains and prime farmland, receives heavy rainfall and has high water tables, all characteristics ill-suited to landfills. Plus, nobody wanted a dump in their backyard.

After years of deliberations, the group chose Coffin Butte. During public hearings, locals balked, citing the risk of groundwater contamination, inadequate regulatory oversight, and the impact on surrounding property values. Nevertheless, in 1974, Benton County allowed the Bunn Brothers to expand their dump into a regional landfill.

In the ensuing decades, waste generation

continued to grow alongside an industry eager to profit from its disposal. As companies competed for hauling contracts, national waste-management corporations began buying up local and publicly owned landfills — for whoever controlled the dump controlled a crucial keystone of the trash market. By the time Allied Waste bought Coffin Butte Landfill in 1999, Americans were tossing out 5 pounds of trash every day, and Allied Waste was bringing in \$6 billion a year. In 2008, Arizona-based Republic Services merged with Allied Waste, further consolidating the industry and taking over the Coffin Butte dump.

In the years immediately following the dump's sale, Cathy and her neighbors in Soap Creek noticed few changes. The new corporate owners didn't come around like the Bunns had, but the dump remained a benign presence. Then, in the mid-2010s, things started to shift. The roadsides were often littered with trash and truck traffic thundered along, seemingly without pause. Unpleasant odors grew more frequent, sometimes driving families indoors. The smell was difficult to describe — some likened it to rotting cabbage, others to bug spray — but people found no shortage of adjectives to lob at it: *Acrid. Hideous. Offensive. Nasty.* The dump's visual presence, too, swelled. Residents recall the Bunn Brothers promptly covering landfilled trash with soil, even planting grass and wildflowers, but now dozens of acres of hillside lingered for years under black plastic tarps.

A growing unease about the landfill began to ripple through the community, but it wasn't until July of 2021, when some residents received an unsettling notice in the mail, that people began to ask: What was really going on up there?

The notice informed residents of Republic Services' intent to expand the landfill from its current location on Coffin Butte across the county road and onto the northern slope of Poison Oak Hill — where the Bunns had assured Cathy Holdorf no garbage would ever be placed. Essentially, Republic wanted to fill the entire valley with trash. It wasn't just the Bunns' word that designated this land off-limits to dumping; Benton County's land-use code prohibits disposing of solid waste here. However, an exception can be granted via a conditional use permit, which Republic Services was now applying for.

The first thing that alarmed locals about

the expansion proposal was Republic's plan to close Coffin Butte Road, a vital fire escape route for the community. As neighbors shared their concerns about this, other common experiences began to emerge — eye irritation, worsening odors, headaches, nausea, cancer. To the shock of many, they learned that Coffin Butte had quietly grown to become the second-largest dump in Oregon, the repository for nearly a third of the state's trash. Each year, it took in over 1 million tons of garbage from more than 26 counties, including some in Washington.

The community organized a meeting at the historic Soap Creek Schoolhouse, where people occasionally gathered for picnics and rummage sales. "Our main aim was to find out what particular talents people had," Joel Geier, one of the organizers, told me. "It turned out there were really diverse abilities in the neighborhood." Geier himself is a hydrogeologist specializing in groundwater flow and contaminant transport. There was an environmental engineer. A labor movement organizer. A fire chief. Artists. Farmers. Birders. Parents.

The group formed an organization called Valley Neighbors for Environmental Quality and Safety, or VNEQS (pronounced "V-necks," like the T-shirt), and set out to research the potential impacts of the proposed landfill expansion. "It was very grassroots and still is," Ken Eklund, a Soap Creek resident and game designer, told me. "There's no hierarchy, just a lot of people who are concerned and have particular skills and interests."

Eklund's own interest lay in climate change. When the expansion proposal landed, he and his wife, Debbie Palmer, an active VNEQS member who stewards the organization's website, had lived in Soap Creek for five years and Eklund was looking for a local way to engage with the climate crisis. When organic matter decomposes in anaerobic conditions, it produces methane, a greenhouse gas 80 times more potent than carbon dioxide. In the U.S., where nearly 40 million tons of food ends up in landfills each year, dumps are the third-largest source of human-generated methane, following livestock and oil and gas production.

In addition to methane, landfill gas contains carbon dioxide, hazardous air pollutants, volatile organic compounds, and the "forever chemicals" known as PFAS. To

mitigate public health and climate change impacts, federal regulations require large landfills to collect these gases via a system of wells and pipe them to flares or gas-to-energy facilities. Because these systems are prone to leaks, operators are required to conduct quarterly surveys for "fugitive emissions." Any methane leaks above 500 ppm (parts per million) violate the Clean Air Act and must be reported to regulatory agencies — in Oregon, its Department of Environmental Quality — and mitigated immediately.

At Coffin Butte, Eklund learned, employees survey emissions by walking the landfill's surface with handheld methane sensors. The landfill covers 125 acres. Inspecting the whole thing on foot with a hand sensor struck Eklund as ludicrous, especially when he learned that a landfill operator can legally exempt any areas deemed too dangerous to traverse. (Republic Services exempts more than half the surface of Coffin Butte.) "I thought, surely that can't be the way they monitor?" he said. "But indeed it was."

Though this technique is common in the landfill industry, Eklund soon learned there were other ways to monitor dump sites. In 2016, NASA's Jet Propulsion Lab began using aircraft to track methane emissions across California. These surveys found landfill emissions were in fact far worse than previously reported, revealing dozens of dumps to be persistent super-emitters — sites that consistently released more than 100 kilograms of methane per hour. In 2020, collaborators from this project founded the nonprofit Carbon Mapper and began utilizing aircraft and satellite technologies to monitor emissions around the globe.

When Eklund began looking into it, Republic Services reported that Coffin Butte's gas collection system captured an impressive 91% of gases; 60% of these, they said, were piped to a gas-to-energy facility to generate electricity, while the rest were flared off. The company's recent monitoring reports identified hardly any leaks above the 500 ppm limit.

Methane itself is odorless, but many of the gases that accompany it produce a strong stench. Considering the widespread complaints of foul odors — "as if every cleaner under your sink were mixed together" — Eklund had doubts about Republic Services' figures. He wondered: Might Coffin Butte's actual emissions also

be far higher than reported?

While Eklund dug deeper into methane issues, other VNEQS members explored the impacts the expansion might have on groundwater, wildlife, public infrastructure and fire danger. When the county hearings were held in November 2021, four months after that first meeting at the schoolhouse, the community delivered such an impressive heap of testimony highlighting health and safety risks associated with the proposal that the Benton County Planning Commission voted 6-0 to deny the expansion request. Republic Services immediately appealed the decision, then withdrew its application and informed the county it would be filing a revised version in the future.

For VNEQS, celebrations were tempered. The process of compiling testimony had unearthed far more questions than answers, but one thing was clear: The dump was worse than anyone had thought. For many, this marked the beginning of what would become an all-consuming endeavor to understand the many ways the Coffin Butte Landfill was bound up with the lives of people and ecosystems, both nearby and faraway.

**FORTY MILES NORTHEAST OF COFFIN BUTTE**, a community in Marion County was fighting a different waste-disposal site: a trash incinerator. The last remaining incinerator in Oregon, the ReWorld Marion facility was polluting nearby neighborhoods with toxic emissions produced by burning municipal and medical waste, and activists had been working for decades to shut it down. They'd recently begun collaborating with Beyond Toxics, a Eugene-based environmental justice nonprofit, to develop legislation to strengthen emissions monitoring requirements for incinerators. (In 2023, Oregon passed SB 488, the strictest incinerator emissions monitoring regulation in the country. Shortly thereafter, ReWorld Marion announced it would stop incinerating waste at the end of 2024; however, it has yet to fully do so.)

When VNEQS members learned of these efforts, they were inspired, and also wary. If the incinerator shut down, where would all that trash — some 550 tons per day — go? The most likely answer was Coffin Butte.

VNEQS reached out to Beyond Toxics to





■ The working face of Coffin Butte Landfill, where some 127,000 vehicles — an average of one every 78 seconds — haul in over 1 million tons of garbage annually.

**IN ADDITION TO METHANE, LANDFILL GAS CONTAINS CARBON DIOXIDE, HAZARDOUS AIR POLLUTANTS, VOLATILE ORGANIC COMPOUNDS, AND THE “FOREVER CHEMICALS” KNOWN AS PFAS.**

express these concerns and ask if the organization might consider working with them on the landfill, in addition to the incinerator. “At first, the issues were seen as kind of at odds with each other,” Lisa Arkin, executive director of Beyond Toxics, told me recently. But it turned out the landfill and the incinerator were deeply entangled, and the two communities quickly came to see each other not as adversaries, but as allies in the same fight for a better waste-management system.

When trash is incinerated, it produces not only toxic emissions but also toxic ash — some 30 tons for every 100 tons of garbage.

This ash, concentrated with heavy metals and dioxins, must go somewhere. Landfills are required to cover exposed garbage at the end of each day with 6 inches of soil or an approved alternative material. At Coffin Butte, Republic Services had been using ash from the Marion County incinerator as daily cover, spreading some 25,000 tons across the landfill’s working face — the open section where incoming trash is dumped — each year. Though DEQ allows this practice, it concerns residents and landfill workers who worry about the implications for local groundwater and report wind-blown ash dust drifting over

the surrounding landscape. (Republic told me ash arrived in a wet, cement-like form.)

“So we started with the realization that we had this shared problem: The incinerator ash is polluting two communities,” Arkin told me. Beyond Toxics began collaborating with VNEQS, and it soon became clear that the contamination extended far beyond these two neighborhoods.

When water percolates through a landfill, it accumulates chemicals leaching from decomposing garbage and, in the case of Coffin Butte, incinerator ash. Imagine the contents of every trashcan within a city



block — half-empty bottles of air freshener and bug spray, plastic bags slimy with rotting food, scraps of foam insulation and broken PVC pipes, nail-polish remover, corroding batteries, cracked smartphones, pharmaceuticals — layered with the ashes of burned waste, then steeped in rainwater. The result is leachate, a toxic brew containing heavy metals, solvents, ammonia, dioxin and PFAS. Landfills that receive more rainfall produce more leachate. Coffin Butte, located in one of the wettest parts of the rain-drenched Willamette Valley, produces 40 million gallons — about 60 Olympic swimming pools' worth — each year.

Federal regulations require landfills to install liners and collection pipes to capture leachate and prevent it from contaminating groundwater. Landfills are under no obligation, however, to treat what they capture; instead, many dumps, including Coffin Butte, haul leachate to public wastewater treatment plants where it is processed alongside household sewage.

On a gray morning in January, I visited the Corvallis Wastewater Reclamation Plant, which receives half of the leachate produced at Coffin Butte. (The other half goes to Salem's plant.) There, plant operator Doug Rumpel led me on a whirlwind, *Magic School Bus*-style tour of the steps involved in transforming raw sewage into clear water destined for the Willamette River.

We began at the headworks, where landfill leachate is trickled into the flow of raw sewage entering the plant. This slurry then gushes through a metal screen to remove shreds of cloth (diapers, napkins, wipes) which are rinsed and loaded into a dumpster destined, of course, for Coffin Butte. Next, the sewage enters a tank where "grit" (coffee grounds, sand) quickly sinks. This, too, ends up in the dump. From here, the murky liquid flows into primary treatment tanks where solids gradually settle out. These are piped to an 800,000-gallon anaerobic digester where they're broken down by microorganisms to produce sludge. The digested sludge — rebranded as "biosolids" in a 1991 public relations naming contest — then sits in open lagoons where it undergoes further biological processes for a year or more before it is ultimately hauled off to farms and spread as fertilizer.

Meanwhile, the liquid portion is sprinkled



**"THERE WERE TIMES I HAD TO WALK THROUGH HUNDREDS OF YARDS OF GARBAGE TO GET TO A MACHINE," ROBERT ORTON, FORMER MECHANIC AT THE LANDFILL, TOLD ME. THE MACHINES — TRACTORS, TIPPERS, BULLDOZERS — WERE COATED IN CORROSIVE MATERIALS, FECAL MATTER AND GARBAGE OF EVERY KIND.**



over a giant tank filled with rocks — just plain rocks. Covered in microorganisms, these help remove organic matter before the water flows onward to an aeration basin where a robust community of bacteria further clarifies it. The water is then chlorinated. Finally, the chlorine is removed with sodium bisulfite and the water is piped under the highway and out into the Willamette River 5 miles upstream from the drinking-water intake for the community of Adair Village. Farther downriver, Sherwood and Wilsonville also source public drinking water from the Willamette.

It's a mesmerizing process, the transformation of raw sewage into clear water and nutritious fertilizer via a sequence of processes performed by the humblest of actors: stones, gravity, bacteria. It seems almost magical, too good to be true. In part, that's because it is.

While the water leaving the plant appears clear and is free of many conventional contaminants found in human waste, such as fecal coliform, the facility is not equipped to remove the modern-day synthetic chemicals concentrated in landfill leachate — most notably, PFAS. These chemicals persist indefinitely in the environment and are linked to cancer, reproductive harm and other serious illnesses. Some are harmful at such low concentrations that the EPA has found there to be no “risk-free” level of exposure.

Joel Geier and Mark Yeager — a Soap Creek resident, environmental engineer and active member of VNEQS — wanted to better understand how leachate from Coffin Butte was impacting water discharged from wastewater plants. Through a public records request, they obtained data on PFAS levels in the Corvallis plant's influent, effluent and leachate. As expected, the PFAS levels in the leachate were off the charts. But when Geier crunched the numbers, another troubling finding emerged: PFAS levels in the effluent — the “clean” water sent to the river after treatment — were actually higher than the levels in the influent — the untreated municipal sewage. Similar results were found at the Salem plant.

The simplest explanation for this, Mason Leavitt, data analytics specialist for Beyond Toxics, told me, is that adding leachate — so highly concentrated with these chemicals — into the wastewater stream raises the overall concentration of PFAS in the water going out.

This may not be the only cause of the elevated PFAS levels, but what these numbers make clear is that wastewater treatment plants do not effectively remove PFAS.

Instead, the chemicals pass through these systems intact. Some pour out into the Willamette River with the “clean” effluent. Others end up in the sludge and are spread across hay and grass-seed fields. Dispersed into the environment, these toxins bioaccumulate, concentrating in the bodies of the animals who drink the water or eat the hay. Which is to say: Us.

**ROBERT ORTON**, a heavy equipment mechanic, grew up in Monmouth, Oregon, just up the road from Coffin Butte. “I’ve been going to that dump since I was a child,” he told me one January afternoon in his living room in Albany, Oregon. In 2021, after he was laid off from a civil contracting company during a pandemic-induced restructuring, Orton applied for a mechanic position at the dump. Before taking the job, he looked into Republic Services and learned it had recently made *Fortune*’s list of most admired companies. Orton assumed a business like that would run a clean shop with high safety standards. So when he got to Coffin Butte, he was shocked.

At first, working at the dump felt exhilarating in a “Wild West” sort of way, he said. “It’d be 100 degrees out and I’m working in shorts with my shirt unbuttoned, getting a suntan, arc-welding and just praying I don’t go down from heatstroke.” The experience reminded him of working on farms in his youth, where, if a piece of equipment broke during harvest, you did whatever you had to do to make it run, safety considerations aside. But at Coffin Butte, the novelty soon wore thin.

“There were times I had to walk through hundreds of yards of garbage to get to a machine,” Orton told me. The machines — tractors, tipplers, bulldozers — were coated in corrosive materials, fecal matter, and garbage of every kind, he said. The unlined ground around the shop where equipment was washed was constantly inundated with contaminated liquid that ran off the slopes with the rain. Clouds of dust wafted over the shop when loads were dumped. Workers used outdated PPE, Orton said, and were often half

a mile from the nearest running water where they could wash their hands. “There were times I contemplated urinating on the gearbox that I had to tear apart because I knew my urine was at least sterile.”

After expressing his concerns to managers, and later, OSHA, DEQ and the EPA, to no avail, Orton suggested the mechanics unionize. “I was never a union man,” Orton told me. “My father was a logger. If you weren’t being treated right, you just went somewhere else.”

But as a mechanic, he said, holding out his hands, “This is all you got. You start losing digits, that’s it.” All seven mechanics joined the union and, in September 2023, they went on strike demanding safer working conditions and better health care.

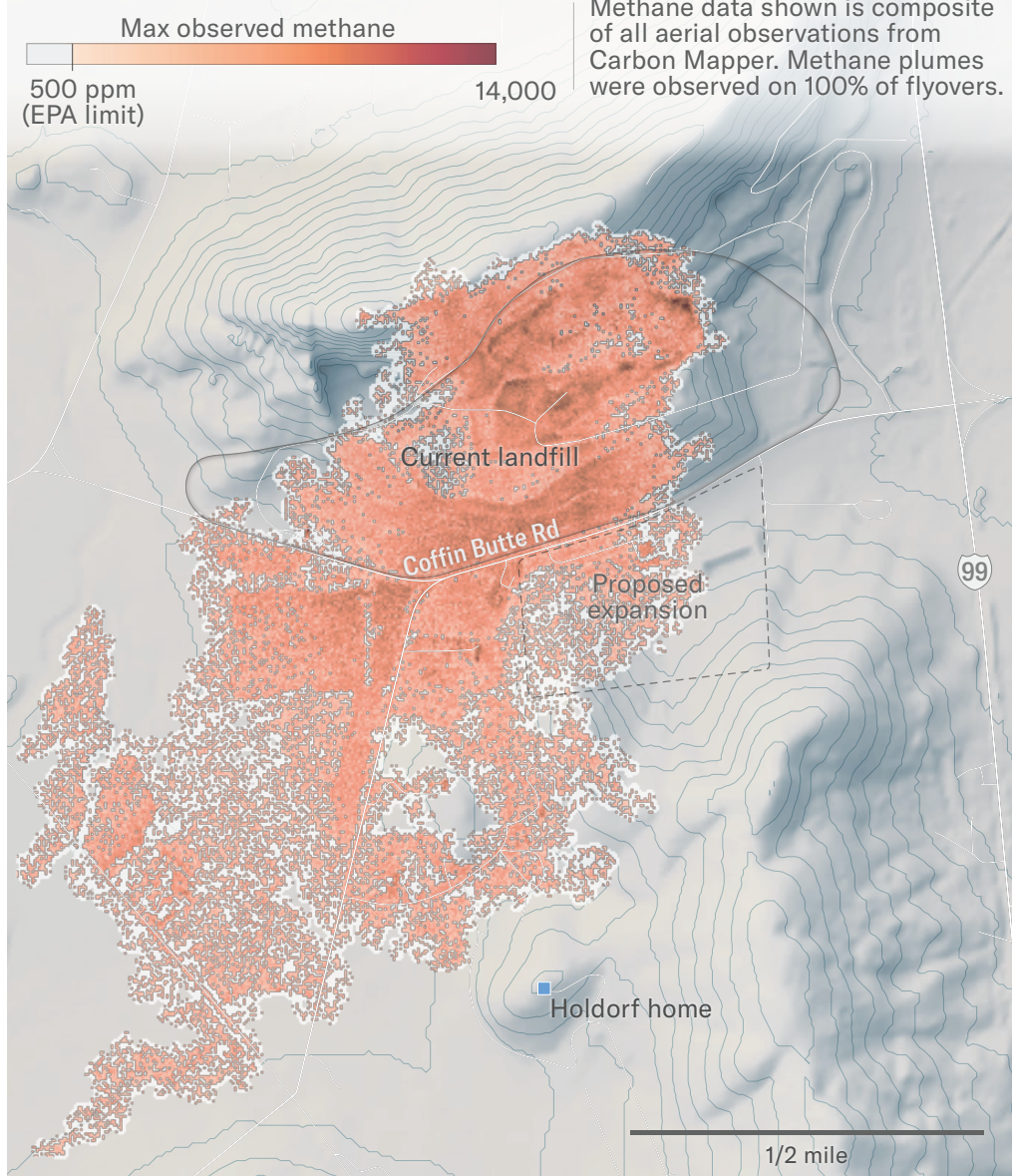
By this time, VNEQS had grown to include hundreds of members, and many came out to support the strikers. “God bless those people who were fighting this landfill before we went on strike,” Orton said. “They really got the word out.” The striking workers, too, had a lot to offer the activists: They witnessed firsthand what went on at the landfill and had been documenting what they saw. “The workers were sounding the alarm about methane,” Lisa Arkin told me. “The onsite videography they had was jaw-dropping.”

In Orton’s living room, he showed me one of the videos. The day he filmed it, he’d just finished working on an excavator when he heard a loud hissing. “I thought I’d punctured a tire,” he said. But the sound was coming from below. At his feet, landfill gas was visibly bubbling up through mucky gravel, as if the ground itself were boiling. “I thought, ‘Wow, we’re working *right on top of this*!’”

Midway through the strike, Beyond Toxics received a report from an EPA surface emissions inspection of Coffin Butte. Though the inspection was conducted more than a year earlier — in June 2022, after locals like Ken Eklund had been raising concerns for months — the report had just been released through a Freedom of Information Act (FOIA) request from the nonprofit Industrial Labs.

During his announced visit, EPA inspector Daniel Heins retraced the path Republic Services employees had walked during their own surveys (the most recent one conducted just 14 days prior), in which the company found no more than six exceedances of the 500 ppm limit. Heins found 61, so many that he ran out of flags to mark them. Twenty-one

## Methane emissions at Coffin Butte



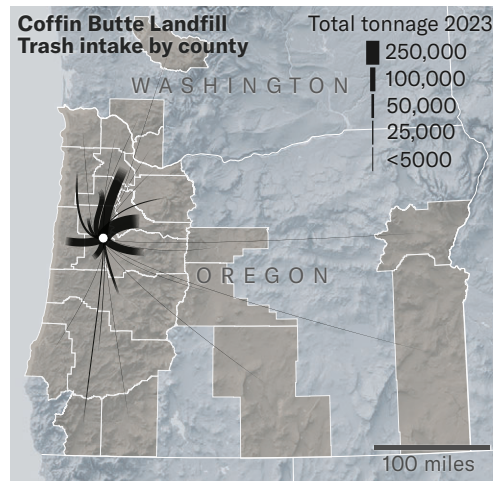
Maps by Nick Underwood / HCN

were over 20 times the limit. In some places, the tarp was visibly inflated with gas. According to the report, when Heins asked Republic if it viewed the inflated tarps as a concern, the company claimed the wind had blown them up, to which Heins pointed out the high methane concentrations near the inflated tarps, the fact that they were in a static inflated state, and the lack of any steady wind.

When exceedances are found during inspections, federal and state laws require landfill operators to take action to bring them below 500 ppm within 10 days. I asked Republic Services' communication manager,

Melissa Quillard, what the company had done to fix those 61 leaks. She told me they "immediately took corrective actions ... including patching tears in the cover tarps and expanding the landfill's gas collection and control system."

Nevertheless, Orton continued to see evidence of gas leaks: holes in tarps, poorly laid and busted pipes, bubbles coming from the ground. In March 2024, he left work early and drove to the Benton County Commissioner's Office. He told the commissioners that he'd emailed them a video of the bubbling gases at Coffin Butte, and encouraged them to reach out to talk further. He



SOURCES: Leachate disposal; Oregon Department of Environmental Quality and localities (map is not comprehensive). Trash intake; Coffin Butte Landfill 2023 Annual Report

never heard from the commissioners. A week later, he was fired. (Republic Services told me the company has a zero-tolerance policy toward retaliation.)

In June 2024, the EPA returned for another inspection, this time unannounced. The report from that visit, also accessed through FOIA, was released a few days before I visited Orton. Despite the two years since the previous inspection, the report revealed continuing gas leaks at Coffin Butte. In a survey covering only a small portion of the landfill, EPA inspectors identified 41 exceedances. Ten were more than 20 times above the limit, including some measured at



explosive concentrations. The inspector also noted significant odors, an observation that shouldn't have surprised him — locals had been reporting this for years. The mandatory 10-day follow-up survey indicated that the leaks had not yet been resolved.

By this time, Carbon Mapper had also surveyed Coffin Butte from the air and observed persistent methane plumes, some extending for miles and emitting more than 10 times the threshold of a super-emitter. Landfill operators, however, are not required to respond to leaks detected by third parties. “An aircraft can look down on Coffin Butte Landfill and see a huge methane plume, inform Republic Services and pinpoint exactly where the leak is, and — nothing happens,” Eklund told me. “Republic just shrugs.”

I asked Dylan Darling, public affairs specialist for the Oregon DEQ, what consequences Republic Services would face for the repeated violations, or how emissions regulations would be enforced going forward. He told me to ask the EPA, since it was leading the enforcement. EPA representative Mathew Vanourek told me he couldn't comment on ongoing compliance evaluations. Benton County Solid Waste Program Coordinator Bailey Payne told me the county has no authority to enforce state and federal air quality regulations. Thus far, no agency has issued Republic any fines, penalties or notices of violations regarding methane leaks at Coffin Butte.

In July 2024, Republic Services submitted its long-awaited revised expansion proposal. In response to community concerns about methane leaks, the new application stated that it is Republic's “priority and practice” to comply with all laws regulating methane: “The appropriate regulatory authorities have and will ensure that (Republic) remains in compliance.”

When I mentioned the findings of the latest EPA inspection to Orton in his living room that day, he was unsurprised. He only looked at me squarely and said, “Ma'am, they can't fix the methane problem out there.”

After Republic Services fired Orton, he was unemployed for four months. “I didn't know whistleblowing brought on a kind of PTSD,” he told me. “You have the photos, the emails, and still you're getting gaslit, they're saying, ‘No, these things aren't happening.’ Sitting around waiting for an unemployment

check, you start questioning yourself. It's just hellish.”

A scrawny black cat climbed onto the arm of Orton's chair as he spoke, pressing her forehead into his shoulder. “This is Luta,” he told me. “She was wild at the dump for years, and we got to be friends.” When Orton left Coffin Butte, he took the cat with him.

**FOR KEN EKLUND**, who'd first raised questions about Coffin Butte's methane emissions more than three years ago, the findings of the EPA reports and Carbon Mapper surveys were both validating and maddening at once. They confirmed what he and the local community had long suspected — Coffin Butte was leaking gas at rates wildly beyond what Republic has reported — and also revealed that very little was being done to fix the problem.

“We're on the receiving end of an incredibly big machine that's been set up economically and politically so there isn't a clear way to stop it,” Eklund told me on a foggy January morning at his home in Soap Creek. While we talked, Palmer updated the VNEQS website with fresh news: Benton County had deemed Republic Services' new expansion application complete, public hearings would soon be announced.

Now semi-retired, Eklund spent his professional career working at the intersection of game design and future studies.

When playing games, he said, people must constantly think and strategize about what will happen next. In turn, they become better at conceptualizing the future. His games — like the Peabody Legacy Award-winning alternate reality game *World Without Oil* — use real-world scenarios to invite players to imagine, and play out, alternative futures.

The proposed landfill expansion, Eklund said, “is a perfect example of where the future is completely missing from the equation.” Rather than asking how we can create a new waste management system that no longer relies on landfilling — and all of its attendant environmental harms — expanding Coffin Butte would only make it easier to perpetuate the status quo.

Near the end of 2024, after years spent digging into the landfill's environmental and public health impacts, Eklund and Palmer found themselves worn thin. The task devoured most of their free time while other passions fell by the wayside. Bemoaning all this one day, Eklund wondered: What if he could design a game about the dump? At first, all he could imagine was a dreary game of bureaucratic warfare. But over time, a new vision emerged.

The day I visited, Eklund explained the basic concept of a cooperative board game he was tentatively calling “Dump Monster”: A town dump has grown into a formidable and sentient living creature



■ The Willamette River flows past the Corvallis Wastewater Reclamation Plant.





# “STOPPING THE LANDFILL EXPANSION IS THE FIRST STEP IN DEMANDING A NEW WAY FORWARD.”

— MARK YEAGER, MEMBER OF VALLEY NEIGHBORS FOR ENVIRONMENTAL QUALITY AND SAFETY, OR VNEQS

capable of influencing adult brains. It seeks to grow ever larger by consuming more and more garbage. The players are kids on bikes. Unbound by the rules of adulthood but old enough to have freedom and mobility, they snoop around to discover where the dump gets its power and which humans it controls. Through the game, Eklund hopes, players will learn how waste management systems work, why so much garbage ends up in landfills, and who's profiting from it. “That huge

trail of trash may seem inevitable, but it's not,” Eklund said. “Once you begin to understand the system, you begin to understand how to defeat it.”

After the idea for the game began to take shape, Eklund told me, a liberating thing happened. “All of the sudden, the whole fight against the landfill became less drudgery.” The game had transformed a frustrating situation into a story. And unlike a book or movie, how a player engages with a game can

determine what happens next. “A game is a story you're inside of,” Eklund said. “One you can help write.”

**THE FAQ PAGE OF COFFIN BUTTE LANDFILL'S WEBSITE READS:** *Can I take a tour of the landfill?* To which Republic replies: *Of Course!* I dialed the number listed, but got an out-of-service message. I called the main line and was directed to an online



scheduling link, which led to an error page. I was then given an email address to query. When I didn't hear back, I asked Quillard, the communications manager who had been fielding my questions, for a tour. She told me there were currently none available.

In lieu of an official tour, I met VNEQS' Mark Yeager at a gas station on the outskirts of Corvallis. Yeager has lived in Soap Creek since 1987 and has spent countless hours wading through the legalese of dump-related documents — the expansion proposal, land-use codes — and translating it into engaging public presentations.

From the gas station, Yeager and I drove over a forested ridge and down into the south end of Soap Creek Valley, where houses stood amid snug meadows and signs reading "Stop the Expansion" adorned front yards. Soon, the valley broadened and the dump swung into view: gouged hillside, sheen of black plastic.

At Coffin Butte Road, we turned east and traced the foot of the landfill past the leachate storage ponds and the steel cylinder housing the methane flare. Near the entrance, Yeager pulled over and we watched traffic as he narrated. Here, a 90-cubic-yard tractor trailer hauling in trash. Here, a dump truck carting out rock from the quarry. Here, a local hauler with a load of construction debris. Here, a tanker truck carrying leachate to the wastewater plant. Yeager identified the purpose and contents of every vehicle that passed, and I wondered how many hours he'd spent doing just this. For many locals, the dump presents not only physical risks but also the psychological burden of living alongside a neighbor who had lost their trust.

We drove on, heading west. The landfill's working face was out of sight from the road, and only a vast slope of black tarp reached skyward. That day, rivulets of liquid cascaded down parts of the tarp. This, Yeager suspects, was leachate escaping the collection system to trickle into the surrounding soil. Republic Services, however, had assured him it was in fact just rainwater runoff. "Rainwater?" Yeager said, keeping his gaze ahead. "It hasn't rained in days."

On the north side of Coffin Butte, we parked on a piece of property that extends to the ridgetop, where the owner — who allows VNEQS access — operates a ham radio station

out of a geodesic dome painted like a soccer ball. It's a great location for transmitting radio waves, and also a lucky resource for VNEQS, offering one of the only vantages from which a layperson can view the dump's working face. VNEQS has brought legislators, including state Sen. Sara Gelser Blouin, and community members here to take a look at what most of us never see: the place garbage goes when we throw it "away."

Yeager and I set out switch-backing through a forest of oak and fir. Sword fern and snowberry filled the understory, and if it weren't for the smell, I'd have found it hard to believe we were on the backside of a dump. But the stench was impossible to ignore: a singularly offensive fusion of sulfur and rotting fruit and singed plastic, caustic and sickly sweet at once. Though my instincts implored me to hold my breath, the path was steep. By the time we reached the top, I was huffing, the stench thick enough to taste.

At the summit, trees gave way to grassland and the view stunned. Dark-bellied clouds roiled overhead while hayfields and pastureland spread bright green across the Soap Creek Valley below. To the west, fog pooled between forest ridges. To the east, the peaks of the Cascades, snow-covered and sun-struck, glowed like beacons beneath the bruised sky.

More stunning, even, than the view, were the birds: Hundreds of seagulls, white wings winking silver, wheeled over the landfill. Flocks of European starlings darkened patches of sky. A bald eagle perched on a nearby oak. Two red-tailed hawks circled overhead. All these birds, come to feast on garbage.

Below us, two working faces bustled with activity. At the nearest site, a semi steadily extruded a load of compacted garbage while smaller trucks came and went. Tractors marched across the growing heap, spreading and compressing the garbage. Yeager had brought binoculars and I aimed them towards the farther working face where a "tipper" was tilting a 90-cubic-yard container vertical to drop its load into the dump. Each year, some 127,000 vehicles — an average of one every 78 seconds — haul over 1 million tons of garbage to Coffin Butte. Less than 7% of this comes from Benton County. Republic Services would not provide revenue data specifically for Coffin Butte, but in 2024, disposal fees from the

company's 208 landfills generated roughly \$1.76 billion. I watched truck after truck climb the hill, and thought: *One man's trash, another man's treasure.*

Suddenly, a loud pop followed by a sharp squeal pierced through the drone of machinery. I pulled the binoculars away to watch a ribbon of smoke curl upwards and hundreds of gulls flap into the air. A moment later, another pop sent more birds rising in an uproar of squawks. A landfill worker was shooting off small pyrotechnics to shoo them. This struck me as comically absurd until Yeager reminded me that, according to the last EPA report, explosive levels of methane were leaking from this dump.

We stayed for longer than expected. By the time we left, I'd missed lunch and on my way home I stopped to pick up a snack. Inside Trader Joe's, with the stench of the dump lingering in my nostrils, all I could see was garbage — every product haunted by its future ghost: nylon onion sacks, chip bags, waxed milk cartons, yogurt cups. I lost my appetite and left empty-handed.

**LANDFILLS ARE OFTEN DEEMED A NECESSARY EVIL**, a symptom — even a solution — to a problem rooted elsewhere, in individual behaviors. Dumps, after all, don't generate garbage, nor do they manufacture the chemicals found in it. Instead, Republic Services asserts, dumps are "essential community assets" that provide a "safe and secure location to dispose of solid waste that humans produce."

But this is only partly true. Dumps like Coffin Butte don't produce garbage, but neither do they securely confine it. Instead, the residue of buried trash seeps out, into air, groundwater, rivers and farms, ending up, ultimately, in all our bodies. Nor are dumps irrevocably essential. For the near future, we'll need them to dispose of the things we produce that can't go anywhere else. But most of what ends up in landfills can — and should — go elsewhere. Food waste, which makes up the biggest proportion of landfill contents by weight (24%) and is responsible for most of the methane they produce, could be diverted to composting facilities, along with yard waste (7%). Plastics (18%) could be recycled or banned and replaced with durable materials. Paper (12%) could be recycled

or composted.

But as long as dumping remains cheap for consumers and profitable for corporations, there's little incentive to enact new policies or invest in the infrastructure necessary to pursue these alternatives. Most recycling services are operated by the very same waste management giants, including Republic Services, which profit more from landfilling than they do from recycling. Thus, implementing a truly effective recycling system that significantly reduces the amount of material going to dumps creates a conflict of interest. In its most recent annual report, Republic Services named, as a profit risk factor, "the negative effect that trends toward requiring recycling, waste reduction at the source and prohibiting the disposal of certain types of wastes could have on volumes of waste going to landfills."

In places where landfills are owned publicly, such as Benton County's southern neighbor, Lane County, different incentives apply. Here, the county's landfill is not a profit generator but a limited public resource that must be managed to last as long as possible. For this reason, the county is building a state-of-the-art resource recovery facility that uses advanced technology to remove all organics and recyclables from garbage, not only greatly extending the life of the landfill but dramatically cutting its methane emissions and leachate production. Publicly owned landfills, however, are less and less common. Today, two corporations — Republic Services and Waste Management — control half of all landfill space in the country.

Nearly everyone I spoke to who opposed the expansion of Coffin Butte emphasized the urgent need to enact upstream solutions to curb waste generation — right-to-repair laws, bans on disposable containers and products containing PFAS, organics diversion programs. "But stopping the landfill expansion," Yeager told me, "is the first step in demanding a new way forward."

**ON A BRIGHT JANUARY AFTERNOON,** I met Cathy Holdorf and her youngest daughter, Rose, at their home on the knoll beneath Poison Oak Hill. Winter sun flooded the kitchen where the three of us sat at a cherry-wood table built, like almost everything else

in the house, by Cathy's late husband, John, who died of cancer in 2013.

Rose grew up here, and after moving away to study traditional crafts, she returned in 2018 to revive her dad's woodshop. "Growing up, kids would say, 'You live by the dump, doesn't that stink?'" Rose said, laughing. "I remember always proudly saying, 'Actually, you really can't tell, and look at the place I get to live, it's so beautiful.'"

The place is still beautiful, and Rose's love for the land and buildings is palpable. But the dump is no longer so easy to ignore. The mountain of trash is now high enough to be seen through the winter-bare oaks behind the house. When she wakes early for work, the predawn sky glows with lights and rings with the sound of heavy equipment. And often, especially on foggy days, it does, in fact, stink.

I asked the Holdorfs: If the expansion is approved and the dump moves even closer, would they leave? Rose looked out the window, toward the same view of the Soap Creek foothills that had captured her parents' imagination nearly four decades earlier. "My dad dedicated years to restoring this land," she said. "The house is his life's work." The question wasn't easy for the Holdorfs to answer, and they felt hopeful they wouldn't have to. Instead, like many VNEQS members, they were focusing on writing testimonies for the impending public hearings.

A few months later, in mid-March, Benton County at last announced the dates: The hearings would begin in April and conclude in May. A decision would be made in June. With this announcement, VNEQS ramped up efforts to spread the word, organizing testimony workshops and delivering presentations to anyone interested — high school science clubs, community organizations, neighborhood groups.

One evening, I joined a few dozen people gathered in a cozy house in north Corvallis for a testimony-preparation pizza party hosted by a community member who'd recently attended one of VNEQS' presentations. The dump was 7 miles north — close enough to smell, the host said. Most attendees had only recently learned about the issues at Coffin Butte, and Yeager and Eklund had come to field questions and share information. Eklund had also brought along a new game: "Pin the Plume on the Dump-key."

Simpler than most of his games, this one involved a poster of a satellite photo of Coffin Butte and eight cut-out images of methane plumes from various landfills documented by Carbon Mapper. Eklund set the poster in front of the crowd, then held each plume over Coffin Butte and asked people to guess the true match. When he revealed the answer — not only did the largest plume belong to Coffin Butte, but three of the smaller ones as well — a murmur of gasps moved through the crowd. "What's in the plume?" someone asked. "Have they stopped it?" another inquired. To which someone else responded: "They'd first have to admit it exists."

When the uproar quieted, Eklund explained that Republic Services was not required to address these plumes, since the company's on-foot surveys had not detected them. Nor were they mandated to use the far more effective airborne monitoring tools that had. But that, he said, could soon change.

Earlier this year, Sen. Gelser Blouin introduced SB 726 to the Oregon Legislature. If passed and signed into law, it will require Oregon landfill operators to utilize the now widely available remote-monitoring technologies pioneered by Carbon Mapper (aircraft, satellite and drone) to survey landfill emissions.

VNEQS members are hesitant to claim credit for SB 726, but their dogged research and refusal to stop asking questions about Coffin Butte has played a crucial role in illuminating the regulatory system's failure to keep dumps in compliance with standards and in kindling lawmakers' interest. Many are hopeful the bill will lead to better emissions enforcement, not only at Coffin Butte but across the state. Coffin Butte's methane leaks are egregious, but underreported landfill emissions are common. According to a recent study from Carbon Mapper and the EPA, methane emissions measured by aerial technologies average 40% higher than otherwise reported. "We're fighting expansion of *this* landfill," Palmer said, "but we're fighting on behalf of a much bigger thing."

By the end of the night, folks were fired up and eager to write testimonies. Eklund and Yeager seemed buoyed by the numbers of new people becoming involved. The Trump administration's recent rollback of national environmental regulations proved the federal government could no longer be counted on





■ Debbie Palmer and Ken Eklund in their front yard in Soap Creek Valley, Oregon (above).

In his living room, Ken Eklund explains his game, “Dump Monster,” which was inspired by the Coffin Butte Landfill (left).

to address climate change or protect clean air and water. These responsibilities now fell squarely on the shoulders of regional governments and local communities, elevating the necessity — and potential impact — of just the kind of organizing VNEQS had been doing for years. “Locals see this as a chance to actually influence something,” Yeager told me. A woman nearby nodded. “Who knows what will happen to the EPA?” she said. “It’s on us now.”

In a time of stark political divides, the movement to halt the expansion of Coffin Butte has also built solidarity across party lines — Benton County Republicans, Democrats and the Pacific Green Party have all passed official resolutions endorsing the rejection of the expansion request.

Despite the groundswell of local opposition, plenty of uncertainty remains. “It’s very difficult to permit new landfills,” Melissa Quillard of Republic Services told me. Thus, expanding existing dumps is essential to perpetuating the current waste management system. “We know Republic has poured a lot of resources into this expansion attempt,” Yeager said. “So it’s hard to tell how it’s all going to play out.”

Not long after the party, I drove past Coffin Butte in the wake of a storm. The low-slung sun cast the sky an otherworldly shade of pink, and I pulled over to take in the view. The great shoulder of black plastic, slick with rain, glinted in the spectral light as if shuddering. For a moment, it appeared imbued with life. Two trash trucks climbed the face, then disappeared over the crest to drop their loads into the dump’s ever-hungry gut where the processes of decay were churning on, exhaling gas and leaching liquid. Watching this scene, I couldn’t help thinking of Eklund’s Dump Monster game: Perhaps the landfill really was less an inert facility, and more a living body.

When I’d last seen Eklund’s game, it was still a work in progress. He’d laid a sketch of the playing board across his kitchen table, and I’d puzzled over it for a moment before asking: “But how do you win?”

Eklund folded his hands over the board and grinned. “You stop the expansion.” ☼

*Jaclyn Moyer lives in Corvallis, Oregon. She’s the author of On Gold Hill, which won the 2025 Oregon Book Award for Creative Nonfiction.*