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ISSUE: 1 MAY 3.2023

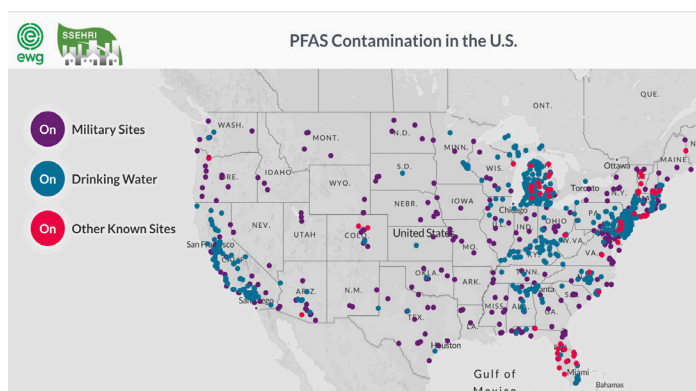
PFAS LIABILITIES: FOREVER CHEMICALS FACE GLOBAL TRIBUNAL

Bennington, Vermont, a pre-Revolutionary town of 15,000 people, is hallowed ground in the literary world. Robert Frost lies buried beneath a bell tower; Shirley Jackson penned *The Lottery* there; and nearly half the 80s literary **Brat Pack**¹ — Bret Easton Ellis, Donna Tartt, and Jonathan Lethem—infamously **graduated**² from Bennington's "coke-dusted, Brideshead-esque" liberal arts college.

Some people attribute it to the landscape. "Bennington looked like something out of a child's fairy tale," **wrote**³ Vanity Fair journalist Lily Anolik. "It was so isolated and so beautiful, and it was green and surrounded by mountains...Supposedly it was one of the few spots on earth where all four winds met at the same time. And there was something sacred about it, something haunted."

But Bennington's mythical atmosphere was punctured in 2016, when the town became ground zero for PFAS contamination. Arguably the most widespread emerging contaminant of our time, PFAS chemicals first arrived in Vermont after ChemFab set up shop in the late sixties. (The literary greats, it turned out, had gotten it all wrong: the killer wasn't in the woods or a pack of rabid citizenry; the killer was in the water.)

"In the 1970s, my adopted hometown ... rebranded itself 'Teflon Town' as it became home to a number of niche plastics plants that occupied that old mills and breathed new economic hope into the **region**⁴," **writes David Bond**, a cultural anthropologist at Bennington College. Unlike other industrial plants, the operation promised to revitalize the area without any of the attendant



pollutants. "The area within a 15-mile radius of Bennington may well be the Teflon glass coating capital of the world," **declared**⁵ one executive in 1968. "Absolutely no pollutants are given off by our operation."

The neighbors would say otherwise. Some noticed the unsettling lack of wildlife, despite the verdant backdrop. "There were hardly any birds around," said one resident. "It is only in the past five years [long after the plant shut down] that there are birds here."

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Others [pointed](#) to more sinister patterns, [including](#)⁶ “a blue-tinged fog on winter mornings, nose bleeds, the acrid smell of plastic burning in the summer, headaches, tap water that foam[ed] as if already soapy, and cancers among family and friends.”

To many, then, it came as no surprise when the city declared widespread water contamination in 2016. “As is now understood, the petrochemical PFOA was emitted for half a century from these factories in Hoosick Falls and Petersburg, New York, and North Bennington, Vermont,” writes Bond. “Today, it is estimated that three modest plastics plants

contaminated roughly 250 square miles of soil and groundwater in a rural area where many still depend on agriculture and get their drinking water from wells.”

After two decades of growing evidence, the case against PFAS grows ironclad, inspiring a new wave of consumer outrage aimed at everything from [Le Creuset cookware](#)⁷ to [Thinx underwear](#)⁸ to [La Croix sparkling water](#)⁹. In this article, we discuss the current state of PFAS contamination, including remediation efforts, regulatory developments, rising toxic tort claims, and the growing threat of PFAS liabilities faced by general industry.

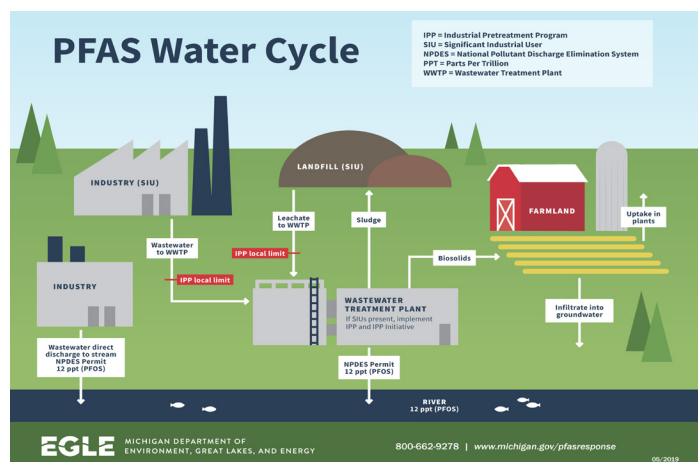
HOW PREVALENT ARE PFAS?

PFAS have been dubbed our generation’s lead paint thanks to their universal footprint, remarkable mobility, and chemical longevity. When manufacturing companies first started monitoring the health of their workers exposed to PFOAs (a specific type of PFAS), they sought a control population to compare them to. But by 1976, just twenty-five years after first commercial use, it was too late: all Americans had detectable amounts of PFOAs in their blood. Today, national sampling confirms that approximately [98%](#)¹⁰ of the US population has been exposed. As one state official succinctly put it, “This shit is everywhere.”

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Perhaps the greatest source of community contamination across the United States, however, is the Department of Defense. For decades, the military used huge quantities of aqueous film-forming foam (AFFF) to conduct fire suppression drills on planes. “[AFFF is] 8-10 percent PFAS by weight, which is incredibly high,” [reported](#)¹¹ Vox. “So, you just need a tiny quantity of that to contaminate drinking water... It contaminated the groundwater in all of these communities next to military bases. There are more than 600 known sites like this across the country.”

Another issue with PFAS is their versatility: like a virus, there are thousands of variants. “[PFAS] are characterized by a fluorine-carbon backbone,” [says](#)¹² Joseph Allen, an assistant professor of Public Health at Harvard. “And the F-C bond, the Forever-Chemical bond, is quite amazing, representing one of the strongest bonds in all of organic chemistry.” This unique structure makes them particularly useful (and profitable) as stain-and-grease-repellant materials, coating everything from pans to furniture to cars. PFOA—[now banned](#)¹³ by over 180 governments—became “the premier surfactant in the manufacture of high-performance plastics like Teflon—that is, PFOA helped spread plastics very thinly and evenly over all varieties of surfaces,” writes Bond¹⁴.



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Unfortunately, this structure also makes them insidiously pervasive and difficult to regulate. While PFOAs and PFOSs have largely been eliminated from commercial use, thousands of new variants have taken their place. Allen [compares](#)¹⁵ them to “weeds in a garden; as soon as we remove one from the market, 10 more appear... The number of Forever Chemicals that can be made is close to infinite. Scientists could study these indefinitely and not make any progress. It’s job security that I don’t want.”

Worse still, the Environmental Protection Agency (EPA) currently regulates chemicals as separate individuals, rather than a class. This means the agency is still laboriously [tracking](#)¹⁶ the Adverse Outcome Pathway for legacy PFAS no longer in production, while thousands of new compounds go unmapped.

AN EVOLVING REGULATORY CLIMATE

As PFAS face more legal and scientific scrutiny, a growing body of literature suggests that exposure to certain levels of PFAS may have detrimental effects on fertility, immunity, and developmental stages in children. PFAS are also a [suspected](#)¹⁷ “obesogen”—interfering with insulin and thyroid signaling to negatively impact metabolism—and are thought to increase the risk of certain cancers.

“You don’t have to look very far into the human literature to realize that obesity, liver, thyroid, and kidney disease are emerging issues that are increasingly being associated with these types of compounds,” said Jan Dye of the EPA. As a result, governments and environmental agencies across the globe are implementing greater regulatory standards and some, such as the EU, have sought to [potentially restrict](#)¹⁸ all PFAS chemicals by 2025.

A few weeks ago, in a long-awaited move, the EPA classified four PFAS as hazardous substances. Earlier, it also updated advisory levels for safe drinking water standards, reducing the allowable concentration of PFOAs and PFOSs to [near zero](#)¹⁹ and aiming

to have the [final rule](#)²⁰ in the Federal Register by September 2024. “Both the federal and the state level regulations will impact businesses and industries of many kinds, even if their contribution to drinking water contamination issues may seem on the surface to be de minimus,” reported the National Law Review.

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In states that have already rolled out PFAS drinking water standards, many businesses and property owners have seen rising costs from addressing long-term PFAS liability concerns. Severely impacted communities, including those located near chemical plants and military sites, have taken matters into their own hands through hundreds of class-action lawsuits, seeking compensation for loss of property value, other financial losses, and material health effects stemming from PFOA contamination of private properties.

Remediation liabilities were further compounded in December 2022 by ASTM International’s decision to [amend](#)²¹ Phase 1 environmental site assessment standards (the gold standard for due diligence) to include reference to PFAS and other emerging contaminants. “While this change likely will increase the level of PFAS testing in real estate and M&A deals, parties involved in these transactions must understand that the changes will not suddenly absolve them of liability risks,” [warned](#)²² John P. Gardella of Bloomberg Law.

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HOW CAN COMPANIES REDUCE EXPOSURE?

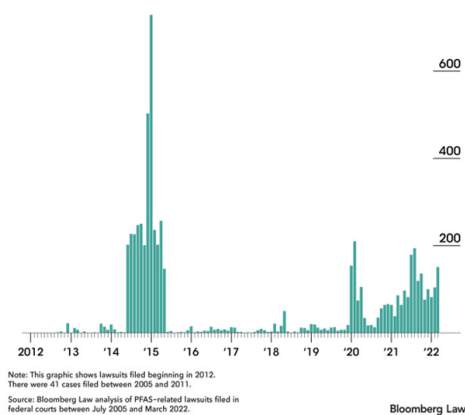
As awareness of PFAS has spread, companies face a host of new risks in an increasingly litigious environment. Bloomberg Law charted more than [6,400 PFAS-related lawsuits](#)²³ in federal courts from July 2005 – March 2022, and in 2020 alone, the three largest manufacturers of PFAS were estimated to face more than [\\$6.5 billion](#)²⁴ in future liabilities.

But it's not just direct manufacturers that should be worried. Industry experts identified [three tiers](#)²⁵ of manufacturers that face exposure to PFAS-related risks: direct manufacturers, companies that use PFAS chemicals to treat various products, and companies with supply chain exposures. This also has reverberating consequences for those in the M&A game. As one law firm [explains](#)²⁶, "The presence of PFAS in soil and groundwater, as well as in a target company's products, can pose significant environmental and health risks that need to be subject to careful diligence by potential M&A buyers, their attorneys and environmental consultants."

Even industries with no relation to manufacturing, such as agribusiness, may find themselves in legal crossfire. "There's an immediate PFAS litigation risk in the agribusiness industry [...] and I'm not sure it's necessarily on their radar yet," [says](#)²⁷ Alexandra Roje, partner in Lathrop GPM's Insurance Recovery practice. "They're not necessarily concerned with it being a hazardous substance, because they're saying: 'We're not using it, so why should we care?' But the reality is that PFAS is getting into the environment, and it's finding its way through the food chain. Because it's so persistent, I expect PFAS is going to be a major risk factor for agribusinesses going forward."

A Decade of 'Forever Chemical' Litigation

Monthly PFAS Lawsuits Filed (January 2012 – March 2022)



Some insurers, faced with fluctuating risk parameters, have balked at providing coverage entirely. "Insurance programs have to be able to define what risk and exposures are in order to develop the policy contract, and because you cannot reasonably define PFAS exposures in the current regulatory environment, it's not an exposure that is widely accepted," [said](#)²⁸ James Langes, vice president of environmental underwriting for Philadelphia Insurance Companies.

Yet, not all hope is lost. With meticulous due diligence and a careful assessment of the client's exposure tier, coverage is still possible to find.

"Several of our clients have come to CAC with situations where PFAS and related compounds presented roadblocks to moving forward with a transaction," says Gregory Schilz, Environmental Practice Leader at CAC Specialty. "While many in the insurance industry's initial response is to say that these risks are not insurable, we have found ways to get carriers comfortable. And, as a result of being able to obtain meaningful coverage for PFAS compounds, the client is able to complete their transactions. It comes down to understanding a lot more of the details around the use of the PFAS compounds and, more importantly, knowing how to present those facts circumstances to our underwriting partners."

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REMEDIATION EFFORTS

On the cleanup front, one of the largest efforts in the country is being led by the Department of Defense, which has devoted over [\\$1.5 billion](#)²⁹ into PFAS research and remediation efforts at nearly 700 DOD installations and National Guard locations across the country.

“Frankly, we expect that this amount will further increase as we continue with the cleanup investigations and have a better understanding of the nature of the challenges that we face,” [testified](#)³⁰ Richard G. Kidd, deputy assistant secretary of defense for environment and energy resilience. “Based on what we know today, it will take years to define the scope of our cleanup and decades before it is complete.”

“Both the federal and the state level regulations will impact businesses and industries of many kinds, even if their contribution to drinking water contamination issues may seem on the surface to be de minimus,” reported the National Law Review.

Thankfully, new research suggests that there may be commercially viable ways to remove PFAS from the environment, including through [mineralization](#)³¹, magnetization, and [exposure](#)³² to ultraviolet light. One magnetic method, developed at the University of Queensland, hopes to target water contamination faced by rural communities, where much of the large-scale damage resides.

“Our method shows that it is possible to remove more of these chemicals in a way that is faster, cheaper, cleaner, and very simple,” [said](#)³³ the study’s co-author Dr. Cheng Zhang. “Because our process does not need electricity, it can be used in remote and off-grid communities. Our team will now scale up the testing and we hope to have a commercially available product ready in the next three years.”

However, until new production is halted and more concrete regulations take effect, limiting individual exposure may come down to personal lifestyle changes. Experts advise dusting, filtering water, and taking a harder look at product labeling.

“Cosmetics and personal care products tend to have active ingredient lists, and if any ingredient has a ‘fluoro’ something in it, beware,” [advises](#)³⁴ Elsie M. Sunderland, an environment chemist at Harvard who has studied PFAS for nearly a decade. “You can go to websites like the Environmental Working Group, which says what to look for and scores different products according to their health implications.”

And as for Le Creuset, should you stand by your pan or ditch the Instafamous status buy? It’s best, [concludes](#)³⁵ one cook, to stick with the cast iron line. “We stopped using Teflon a long time ago,” admitted Eric Ripert of Le Bernardin. “The skin started coming off, and I didn’t want to give you a steak with a skin coating.”

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