

Forever Chemicals: Bigger Than Big Tobacco?

How new EPA rules and a nuclear verdict could open the floodgates for PFAS claims.

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Insights

- 1 Per- and polyfluoroalkyl substances (PFAS)—or forever chemicals—have quietly permeated our lives, resulting in **extensive environmental contamination**, and prompting growing regulatory scrutiny and potential legal liabilities that could stretch back decades.
- 2 In June 2023, chemical giant **3M agreed to pay up to USD12.5 billion** to settle a lawsuit brought by a broad coalition of US cities and towns in what has been described as “the largest drinking water settlement in American history.”¹
- 3 While PFAS litigation is still unfolding, it could prove to be **bigger than the 1998 Tobacco Master Settlement**. Time will tell.
- 4 Due to the widespread use of PFAS and their persistence in the environment, the chemicals have been found in soil, drinking water, lakes, oceans, the air, rainwater, food, fish, animals, and humans. Studies have linked PFAS exposure to a high number of **adverse health effects**.
- 5 **Historical general liability policies may respond** to claims if the contamination occurred pre-1985, during a policy period in which the coverage did not exclude “sudden and accidental” pollutants.
- 6 It is important for all companies to explore potential coverage available within an environmental insurance policy to address PFAS-related risks adequately, among other exposures.
- 7 **Companies with PFAS-related liabilities** should seek to transition away from their use, regardless of what insurance protection is in place.

Introduction

The US Environmental Protection Agency (EPA) has identified PFAS as one of the most significant emerging contaminants of concern.

In June, chemical and manufacturing giant 3M and a broad coalition of US cities and towns reached a landmark, nuclear verdict relating to the company’s use of PFAS—also known as forever chemicals—over several decades. The company agreed to pay up to USD12.5 billion to settle “the largest drinking water settlement in American history”.¹

PFAS have quietly permeated our lives, establishing an ominous presence. As a result of their long-lasting nature and resistance to degradation, the use of PFAS has resulted in extensive environmental contamination, leading to growing regulatory scrutiny and legal liabilities.

This article explores the concerns associated with PFAS contamination. It examines the implications for casualty and environmental insurance, which play a crucial role in managing and mitigating the financial risks associated with environmental liabilities.

PFAS: A brief history

PFAS are a group of more than 14,000 man-made chemicals used in industry and consumer products worldwide due to the chemicals’ resistance to heat, water, and oil. The chemicals were first broadly developed and manufactured in the 1940s by DuPont for their patented Teflon product used for nonstick cookware.

Eventually, 3M became the nation’s largest manufacturer of PFAS, producing a wide array of PFAS products, including Scotchgard and aqueous film-forming foam (AFFF) used by the military, airports, and fire departments to extinguish fires.

Over time, PFAS were added to millions of everyday products, including shampoo, dental floss, cosmetics, clothes, carpeting, pizza boxes, food wrappers, cookware, furniture, paints, cleaning products, and rain gear. Due to their heat-resistant, nonstick, and water-repellent qualities, PFAS use proliferated.

However, those same qualities also may make PFAS detrimental to human and environmental health. PFAS are known as forever chemicals because they do not break down easily and remain in the environment forever.

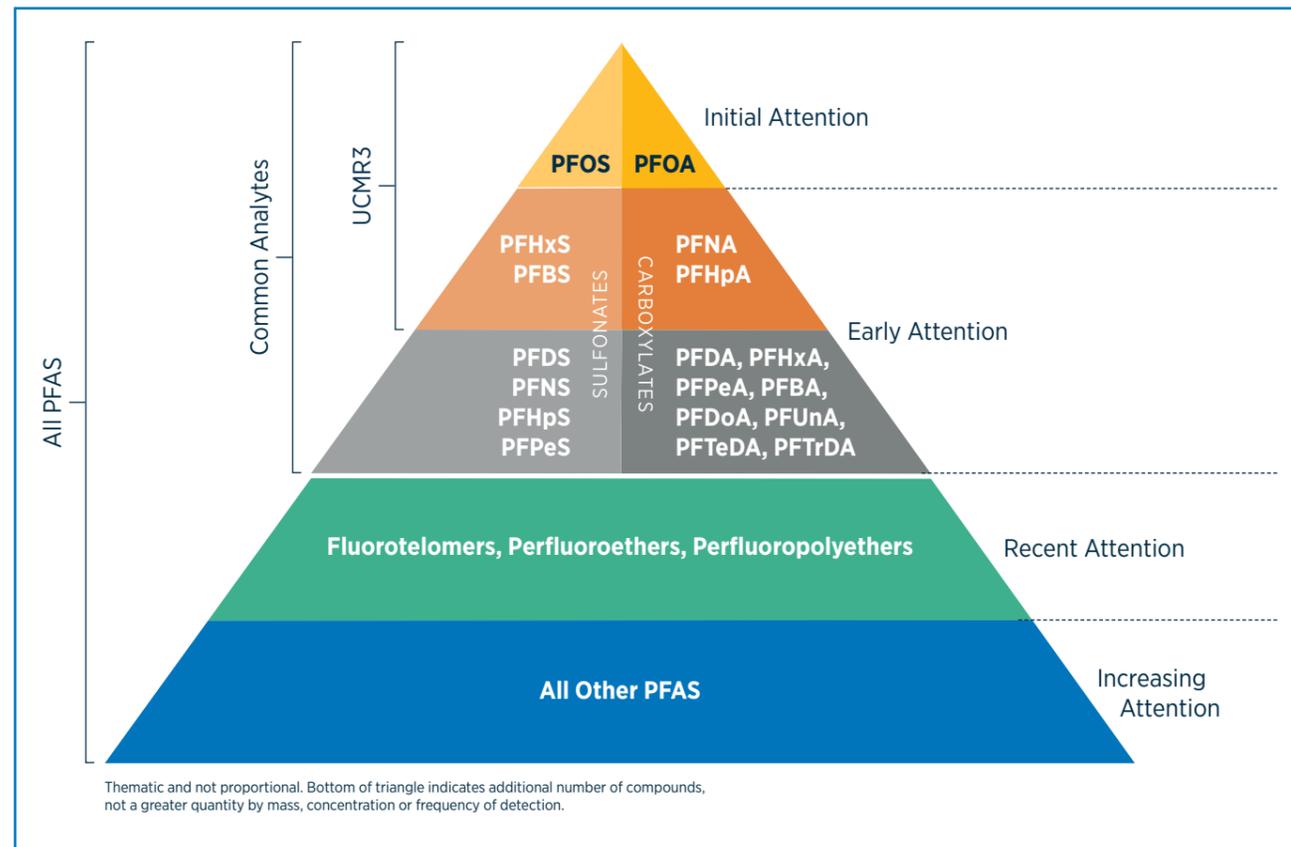
PFAS persist in the environment for a very long time, essentially forever. After mixing with the soil, the chemicals typically migrate vertically to the water table, into the groundwater. This could impact downstream communities that utilize a contaminated aquifer for drinking water, crop irrigation or in a manufacturing process. While we are still determining the best methods to remediate and destroy PFAS, quantifying remediation costs, settlements for bodily injury claims and legal defense costs is far from an exact science.

— **Cameron Douglass**, West Coast Regional Director, Environmental, Area Vice President, Gallagher.

Reducing PFAS use

- In May 2000, 3M, a leading global manufacturer and the exclusive producer of PFOS in the US, declared a voluntary plan to gradually discontinue the use of perfluorooctanyl chemistries, including PFOS, PFOA, and related precursors.²
- Since 2002, the US EPA has introduced several significant new use rules (SNURs) under the Toxic Substances Control Act (TSCA). According to these rules, manufacture, use, and import of specific chemically related PFAS should be reported to the US EPA.
- In January 2006, the EPA launched the PFOA Stewardship Program (US EPA 2006b), wherein eight major manufacturing companies committed to reducing the use of PFOA and other longer-chain PFCAs.
- The Stockholm Convention on Persistent Organic Pollutants (POPs), a United Nations treaty signed in 2001, aims to eliminate the manufacturing, application, and release of vital POPs. Over time, the Stockholm Convention has been modified to include PFOS, PFOA, and the cessation of formerly permitted services.³

Figure 1. Emerging Awareness of PFAS Occurrence in the Environment



Source: "History and Use of Per- and Polyfluoroalkyl Substances (PFAS) found in the Environment," ITRC, August 2020.

PFAS: Environmental and health concerns

Forever chemicals can enter the natural environment through various sources, including industrial discharges, manufacturing facilities, firefighting foams, landfills, and wastewater treatment plants (WWTPs). Once released, PFAS can migrate through soil, enter groundwater, and contaminate drinking water.

The amount of public water systems with PFAS in them is far greater than we can imagine. It is very likely that 83% of our public water has PFAS in it to some extent.⁴

Due to the widespread use of PFAS and their persistence in the environment, these chemicals have been found in soil, drinking water, lakes, oceans, the air, rainwater, food, fish, animals, and humans. It is believed that 98% of humans have PFAS in their blood.⁵

The health risks associated with PFAS exposure have raised concerns among scientists, regulators, and communities. Studies have linked PFAS exposure to adverse health effects, including:

- Liver damage, immune system disorders, and accelerated puberty
- Reproductive impacts and decreased fertility
- Developmental delays in children
- Birth-related impacts (tests have found PFAS is present in breast milk and umbilical cords)
- Increased risk of some cancers, including kidney, prostate, and testicular cancers
- Increased levels of cholesterol and obesity

As a result, regulatory agencies have proposed and passed strict guidelines and thresholds for PFAS levels. These regulations and the increased focus on PFAS contamination have significant implications for industries and businesses that handle PFAS or face potential liability for contamination. Companies found responsible for PFAS contamination may face costly cleanup requirements, fines, legal actions, and reputational damage.

Quick fact:

Top producers of PFAS in the world: 3M, AGC, Arkema, Chemours, Daikin, Dongyue, Archroma, Solvay, Bayer, BASF, Merck, and Honeywell⁶



Evolving legal and regulatory landscape

Due to the potential human and environmental health risks, regulatory bodies in the US are implementing stricter regulations and guidelines to address PFAS contamination. For instance, the EPA established the PFAS strategic road map, which details the agency's concrete actions to protect human and environmental health from PFAS contamination.

Since the roadmap's release in October 2021, the EPA has taken several key actions, including the following.

Hazardous substance designation

In August 2022, the EPA released a prepublication of its anticipated proposed rule to add the two most well-known and well-studied PFAS compounds — perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS) — to the list of hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). After a lengthy comment period, the EPA issued the final rule on April 19, 2024.⁷

The greatest impact of the EPA's rule is that PFOA and PFOS will be subject to the federal CERCLA liability and cost recovery process. The EPA will be able to force responsible parties to either clean up a contaminated site or reimburse the EPA for the full cost of remediation. Moreover, this will lead to requests for sampling and testing for PFAS at existing Superfund sites, and the potential reopening of closed Superfund sites. A substantial increase in expensive and time-consuming Superfund litigation for actual or potential releases of PFOA or PFOS is anticipated. CERCLA imposes a strict joint and several liability approach. This means that even entities that might have minimally contributed to contamination at a particular site can be held liable. The designation also triggers considerable reporting requirements for companies, applying to industries beyond PFAS manufacturers.

Drinking water health advisories

On April 10, 2024, the first-ever national, legally enforceable drinking water standards were established to protect communities from exposure to PFAS. Specifically, the EPA is establishing legally enforceable levels for several PFAS known to occur individually and as mixtures in drinking water. The new limits in this rule are achievable using a range of available technologies and approaches including granular activated carbon, reverse osmosis, and ion exchange systems.

Additionally, the EPA announced nearly \$1 billion in newly available funding to help states and territories implement PFAS testing and treatment at public water systems, as well as to help owners of private wells address PFAS contamination.

A recent study confirmed that at least 45% of the nation's tap water is estimated to have one or more types of PFAS.⁸ While this study tested for the presence of 35 different types of PFAS chemicals, more than 12,000 types are currently untested. Moreover, another study found that 83% of the 114 waterways tested in the US contained at least one type of PFAS.⁹

TSCA

Under the TSCA, the EPA has finalized reporting and recordkeeping requirements for manufacturers or importers of any product containing PFAS to issue information regarding PFAS production, uses, disposal, exposures, hazards, and the amount of PFAS they have manufactured or imported since January 2011.¹⁰ This rule is expected to cost USD876 million industrywide.

Biosolids

The EPA is set to draft a biosolids risk assessment, which will estimate high-end exposures for a wide range of chemical contaminants due to the use and disposal of biosolids.

Biosolids are the treated materials produced during wastewater processing at a WWTP. Biosolids are rich in nutrients and organic matter, and may be used as fertilizer or soil amendments. While WWTPs do not generate PFAS chemicals, they may receive discharges from certain industrial or commercial sources that have used PFAS. As a result, PFAS may be found in treated wastewater and biosolids.

If applied to land, these biosolids would allow PFAS to enter the environment impacting soil, water, and crops. This byproduct is sold to farmers and, when spread across their fields, the hazardous PFAS compounds not only infiltrate crops but can also enter the food chain via cattle.

Around 74% of land applied biosolids are used on farmlands for agricultural purposes, thus introducing hazardous and toxic PFAS from biosolids into the soil and water used to grow food and feed crops consumed by people and animals.¹¹



PFAS litigation: Are the floodgates opening?

Since 2005, over 6,400 PFAS-related lawsuits have been filed in federal courts.¹² DuPont alone has faced over 6,000 lawsuits, and 3M was sued on average three times a day in 2021. In 2021, a USD4 billion PFAS settlement was reached between DuPont de Nemours Inc., Chemours Co., and Corteva, Inc. for environmental liabilities stemming from PFAS pollution. The settlement also included an USD83 million settlement with numerous plaintiffs in an Ohio multi-district litigation (MDL) established to litigate PFAS personal injury claims.¹³

The settlement has now been dwarfed by the USD10.3 billion watershed agreement between 3M involved and at least 300 plaintiff communities. And there are others in the pipeline where further nuclear verdicts are anticipated. Some of the biggest players in the manufacturing and chemicals industry have preemptively established contractual cost-sharing arrangements for future anticipated PFAS litigation.

In recent years, PFAS litigation has targeted manufacturers, paper companies, waste companies, refineries, cosmetics businesses, packaging producers, retailers, and fast-food chains. Cases span a broad range of plaintiffs and claims, from private parties seeking injunctive relief (like remediation and damages for alleged land and water contamination) to governmental entities seeking enforcement actions.

While PFAS litigation is still unfolding, it is reminiscent of the 1998 Tobacco Master Settlement Agreement requiring four leading cigarette manufacturers to increase the price of cigarettes, limit advertising and promotion, open previously secret industry documents, and dissolve industry trade groups.

As part of the Master Settlement Agreement, seven tobacco companies consented to change their tobacco marketing approach and pay an estimated USD206 billion to the US. Additionally, these tobacco companies agreed to finance a USD1.5 billion anti-smoking campaign.¹⁴ PFAS litigation could soon prove to be bigger than big tobacco litigation.

"Not 100% of Americans are walking around smoking tobacco. But basically, 100% of Americans are walking around with PFAS in their bodies and none of them asked for that," observes Erik Olson, senior strategic director for the Natural Resources Defense Council.¹⁵

In large part, the corporations accountable for PFAS-related water and soil contamination are now the ones responsible for remediating it, assuming those corporations still exist today. The remediation process is going to be extremely costly, whether it is about getting the hazardous chemicals out of the water system or out of the soil, and this is a cost most modern-day general liability policies exclude as part of the total pollution exclusion. Praedicat, an emerging risk modeling firm, projects the cost to clean up contaminated water in the US to cost upwards of \$400 billion.¹⁶

— Haytham Zohny, Senior Vice President, Complex Risk, Casualty Practice, Gallagher

Insurance coverage for PFAS-related liability

Since 1985, all standard liability and property insurance policies have excluded coverage for claims associated with pollution events since 1985, requiring a policyholder to purchase environmental insurance to adequately insure pollution exposures.

The growing concerns over PFAS contamination have triggered a surge in environmental insurance claims and a heightened demand for coverage. For any organization with PFAS-related liabilities, insurance coverage may be available to protect against future losses, whether in the form of regulatory action or third-party lawsuits.

An organization's commercial general liability (CGL) policy from decades ago (before pollution exclusions being implemented) might respond to a claim associated with PFAS if the contamination occurred during a policy period in which the coverage did not exclude pollutants.

Starting in 1973, the general liability form began incorporating a "sudden and accidental" exclusion that has been used in some suits to exclude coverage. But in states where case law does not apply the sudden and accidental exclusion to PFAS claims, there may be coverage up until 1985 prior to a total pollution exclusion being added to the GL form in 1986.

Today, and to fill the coverage gap created by pollution exclusions, environmental insurance policies typically cover liability for third-party bodily injury, property damage, and cleanup costs resulting from pollution events. As PFAS contamination cases increase, insurance carriers face challenges in underwriting and managing environmental risks associated with PFAS. Insurance coverage for PFAS-related liabilities largely depends on policy language and specific endorsements.

Policies that were underwritten before the emergence of PFAS concerns may provide broader coverage, while newer policies are likely to have stricter language. Additionally, some insurers have introduced endorsements to provide limited coverage for PFAS liabilities, subject to specific conditions and sublimits.

The costs associated with cleaning up this widespread contamination, as well as the future bodily injury and legal defense costs, are going to be significant. The EPA was allocated a certain amount of money through various acts granting billions of dollars to go into communities to help provide clean drinking water and remediate contaminated sites.

If we are not able to identify potentially responsible parties for that PFAS contamination, there is potential that remediation will not be addressed in a timely or effective manner, or at all. Additionally, there may be a lack of funding available for toxic tort claims, such as cancer clusters, if no responsible party is identified.

The EPA could theoretically pass the remediation costs onto a current property owner that actually had no responsibility for the presence of PFAS. So it's going to be important to identify who is ultimately responsible for the contamination. In the event that responsible parties are not identified, companies and communities which did not contribute to the contamination may find they are financially responsible for that cleanup and other costs associated with the presence of PFAS.

— **Cameron Douglass**, West Coast Regional Director, Environmental, Area Vice President, Gallagher

Coverage may be found in older general liability forms, particularly those prior to 1973 when the sudden and accidental pollution exclusion was added to general liability policies, or prior to 1986 when an absolute pollution exclusion was added to general liability insurance policies. This is especially if they were written on an occurrence basis, and if the occurrence happened, let's say, in the 1940s, '50s, or '60s, before the exclusions were put on more current policies.

If an insured potentially has exposure to PFAS claims, they need to go back as far as they've had insurance to find any old policies they had in place; if they cannot locate evidence of such coverage, they may need to consider employing an insurance archeologist. It is important to start documenting and capturing that information, so that if a suit happens, they already have that information in place.

However, those legacy policies may already be exhausted, or the insured may have released the carrier in previous settlements relating to other environmental, property damage, or liability matters, with the release including future liabilities from specific locations, products, or any other liability.

And if you do have PFAS exposure in your manufacturing or your supply chain process, having a strong plan of transitioning away from PFAS is going to be critical. That may help avoid some suits in the future, and it may also be considered more favorably in any future litigation that an operation is taking steps ahead of time to do the right thing. This will also be critical in keeping PFAS exclusions off of a general liability policy.

— **Haytham Zohny**, Senior Vice President, Complex Risk, Casualty Practice, Gallagher



EPA enforcements

Since 2021, the EPA has taken several measures to address PFAS concerns. These initiatives include various areas such as drinking water, hazardous substance designation, effluent guidelines, and chemical safety.¹⁷

Office of Chemical Safety and Pollution Prevention	Office of Water	Office of Land and Emergency Management	Office of Research and Development
<ul style="list-style-type: none"> • Publish a national PFAS testing strategy • Review existing PFAS under TSCA • Enhance PFAS reporting under the Toxics Release Inventory • Finalize new PFAS reporting under TSCA Section 8 	<ul style="list-style-type: none"> • Undertake nationwide monitoring for PFAS in drinking water • Publish health advisories for GenX and PFBS • Publish final recommended ambient water quality criteria for PFAS • Finalize risk assessment for PFOA and PFOS in biosolids 	<ul style="list-style-type: none"> • Propose to designate certain PFAS as CERCLA hazardous substances • Issue advance notice of proposed rulemaking on various PFAS under CERCLA • Issue updated guidance on destroying and disposing of PFAS 	<ul style="list-style-type: none"> • Develop and validate methods to detect and measure PFAS in the environment • Advance the science to assess human health and environmental risks from PFAS • Evaluate and develop technologies for reducing PFAS in the environment

Source: "PFAS Strategic Roadmap: EPA's Commitments to Action 2021-2024," EPA.

Conclusion

The interplay between PFAS concerns, regulatory actions, and environmental insurance is a complex and evolving landscape. Continued research, effective risk management strategies, and robust insurance coverage are essential to navigate the challenges posed by PFAS contamination and protect the environment, public health, and businesses from the potential consequences of this persistent class of chemicals.

Clients with a suspected exposure to historical PFAS claims are advised to explore potential coverage within legacy general liability policies, particularly coverage that pre-dates 1985 pollution exclusions. Meanwhile, companies with suspected exposure within manufacturing and/or supply chain processes should proactively seek to transition away from the use of forever chemicals.

Environmental liability insurance plays a crucial role in managing and mitigating the financial risks associated with PFAS contamination. Insurers are adapting to the changing landscape by reassessing policy terms, exclusions, and limits. Therefore, policyholders must carefully review their insurance coverage, assess potential liabilities, and consider specialized endorsements or separate environmental insurance policies to address PFAS-related risks adequately.

Coverage is still available for PFAS when written on an environmental insurance policy, and Gallagher's Environmental team is the right broker partner to advocate for this important coverage.

Our team

Please reach out to a team member below to discuss your PFAS exposures and how our Gallagher Casualty and Environmental teams can assist with managing your total cost of risk effectively.

With diverse backgrounds ranging from environmental consulting to underwriting, our team of environmental and casualty insurance professionals are experts in helping you find

cost-effective risk transfer solutions and innovative ways to manage your company's risk.



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Citations

- 1 Perkins, Tom. "Chemical companies' PFAS payouts are huge—but the problem is even bigger." *The Guardian*, August 3, 2023.
- 2 PFOA (perfluorooctanoic acid) and PFOS (perfluorooctane sulfonic acid) are members of the PFAS group of chemicals.
- 3 "History and Use of Per- and Polyfluoroalkyl Substances (PFAS) found in the Environment," *ITRC*, August 2020.
- 4 "Survey Reveals Shocking PFAS Contamination in U.S. Waters," *Waterkeeper Alliance*, October 18, 2022.
- 5 "Understanding the risks of 'forever chemicals,'" *Harvard T.H. Chan School of Public Health*, 2019.
- 6 "ChemSec identifies the top 12 PFAS producers in the world," *ChemSec*, May 22, 2023.
- 7 "EPA Proposes Designating Certain PFAS Chemicals as Hazardous Substances Under Superfund to Protect People's Health," *EPA*, August 26, 2022.
- 8 "Tap water study detects PFAS 'forever chemicals' across the US," *USGS*, July 5, 2023.
- 9 "Empowering communities and spurring governmental action to stop and clean up PFAS pollution," *United Nations*.
- 10 "TSCA Section 8(a)(7) Reporting and Recordkeeping Requirements for Perfluoroalkyl and Polyfluoroalkyl Substances," *Federal Register*, June 28, 2021.
- 11 https://www.epa.gov/sites/default/files/201811/documents/epa_oig_20181115-19-p-0002.pdf.
- 12 "Companies Face Billions in Damages as PFAS Lawsuits Flood Courts," *Bloomberg Law*, May 23, 2022.
- 13 Gardella, John. "PFAS Settlement: Concerns for Downstream Commerce Companies," *The National Law Review*, January 26, 2021.
- 14 "Master Settlement Agreement," *State of California Department of Justice*.
- 15 "'Forever Chemical' Lawsuits Could Ultimately Eclipse the Big Tobacco Settlement," *TIME*, July 12, 2023.
- 16 Booth, Gary. "PFAS—the mother of all toxic torts?" *Insider Engage*, August 2, 2021.
- 17 "PFAS Strategic Roadmap: EPA's Commitments to Action 2021-2024," *EPA*.



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