



PFAS and the Chemistry of Concealment

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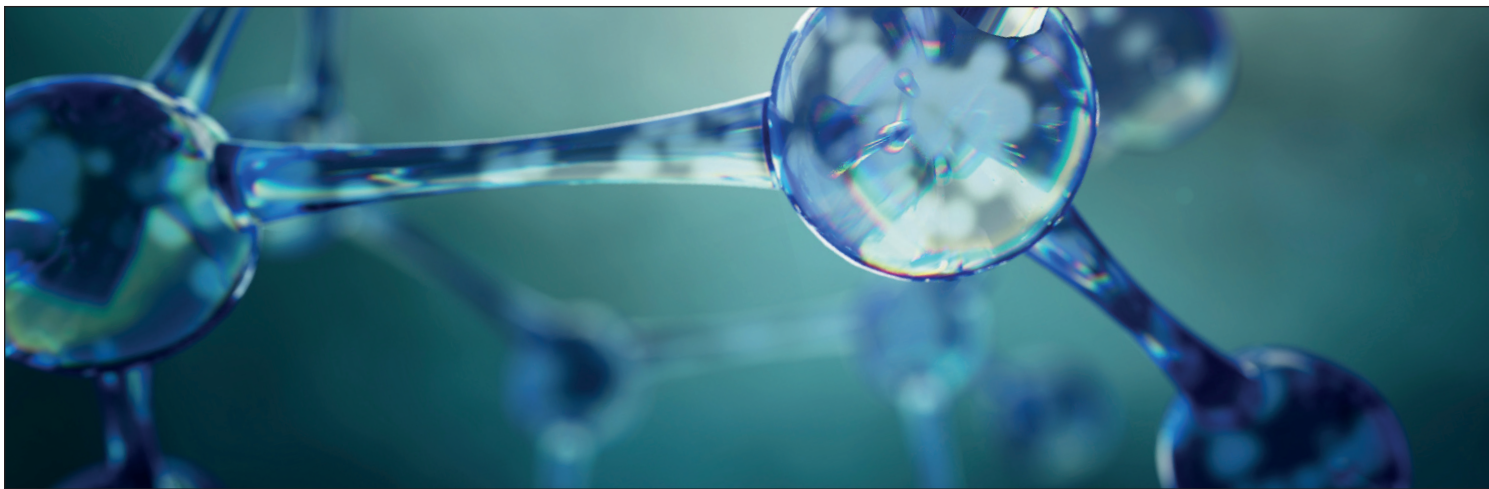
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Executive Summary

For decades, weak regulations in the U.S. have allowed multi-billion dollar chemical corporations to conceal the dangers of the toxic compounds they have polluted the world with.¹ This includes per- and polyfluoroalkyl substances (PFAS), termed “forever chemicals” since they do not readily break down in the environment.² PFAS are today found virtually everywhere — including in the blood of 97 percent of U.S. residents³ — and economic analyses estimate cleanup costs to be in the billions.⁴

As the dangers of PFAS became public and legislative efforts to regulate PFAS and fund remediation grew, so too did lobbying by the chemical industry. Food & Water Watch (FWW) reviewed PFAS-related legislation introduced between 2019 and 2022, along with lobbying disclosures from clients of major PFAS manufacturers and users covering the same time period (see Methodology). We found:

- Congress introduced more than 60 bills related to PFAS during the 116th Congress (2019 to 2020), and over 70 during the 117th Congress (2021 to 2022). Just four bills became law, along with the four annual National Defense Authorization Acts that included PFAS amendments. None of these addresses the underlying responsibility of industry or provides close to sufficient funding.
- During the same time period, PFAS bills and issues appear in reports from lobbyists representing six major PFAS manufacturers, along with historic manufacturers Dow and DuPont. These lobbying reports collectively total \$55.7 million in expenditures spent on PFAS and other issues.^a

- One key target of major PFAS manufacturers was the PFAS Action Act of 2019 and 2021 — a comprehensive bill that would have designated two PFAS as hazardous substances under the Superfund program. The eight PFAS manufacturers paid a combined total of 28 lobbyists to work the 2019 version of the bill.
- The American Chemistry Council, the lobbying arm of the chemical industry, has publicly opposed PFAS regulation and actively lobbied on PFAS each year we reviewed (2019 to 2022). Reports from ACC lobbyists mention numerous bills including those that target environmental and drinking water standards, and total \$58.7 million in expenditures spent on PFAS and other issues.
- Big Oil and Gas (which has used PFAS in fracking fluids) is another major player, as well as the American Petroleum Institute, which sent lobbyists to Congress and federal agencies each year as well to lobby on PFAS.
- The comprehensive PFAS Action Act managed to pass the House but died in the Senate Committee on Environment and Public Works. Two-thirds of current committee members received campaign contributions from the PFAS manufacturers we reviewed. More than half received contributions from the American Chemistry Council, and nearly half received contributions from top oil and gas companies. The current Republican minority took in 84 percent of these contributions.

There is much yet to accomplish in regulating PFAS and reining in the chemical industry’s campaign of concealment. This includes adopting a general definition of

^a Lobbying reporting forms include all issues that firms/individuals lobby on behalf of their clients during the reporting period and do not report expenditures by bill or issue, meaning that it is not possible to know the total spent lobbying on PFAS specifically. See the Methodology section for more.

PFAS, finalizing regulations targeting PFAS as a class of chemicals, banning non-essential uses of PFAS, investing in research and monitoring of PFAS in the environment, and supporting the Water Affordability, Transparency, Equity, and Reliability (WATER) Act as a pillar for funding water access for all. These goals face the intense headwinds of immense corporate spending and influence on federal lawmakers and agency officials.



PFAS are used in the production of numerous products from cosmetics and electronics to firefighting foam. As a result of constant exposure to these and other PFAS sources, 97 percent of people living in the United States have PFAS in their blood.

What Are PFAS?

Per- and polyfluoroalkyl substances (PFAS) are a group of over 12,000 lab-made and long-living compounds introduced by chemical corporations beginning in the 1940s.⁵ Their ability to repel water and oil make them appealing for use in a wide variety of products and applications, including Teflon.⁶ The companies manufacturing PFAS long hid evidence of the compounds' toxic properties and environmental contamination.⁷ But some of these industry reports were discovered in the early 2000s, as part of a monumental court case brought against DuPont by West Virginia citizens whose drinking water had long been contaminated with PFAS waste.⁸ The manufacture and use of perfluorooctanoic acid (PFOA), perfluorooctanesulfonic acid (PFOS), and other similar PFAS have decreased significantly in the United States due to a series of voluntary phase-outs by major manufacturers that occurred starting in 2000 and were facilitated by the U.S. Environmental Protection Agency (EPA).⁹

However, PFAS contamination is widespread, and after the phase-out of PFOA and PFOS, manufacturers began replacing them with different, but similar, chemicals, with claims of reduced toxicity and bioaccumulation.¹⁰ The emerging PFAS may be used in larger volumes and thus negate any benefits of allegedly lower bioaccumulation.¹¹ Moreover, there is evidence that they can transform into legacy PFAS.¹² In late 2022, 3M announced a phase-out of PFAS manufacturing by 2025, but another major manufacturer, Chemours (a spin-off of DuPont), remains "committed to fluorine chemistry."¹³

PFAS are used in the production of many household cleaning materials, cosmetics and personal care products, hand sanitizer, dry cleaning, electronics, firefighting foam, packaging, pesticides and fertilizers, photography, plastics, recycling machinery, refrigerants, textiles, and vehicles.¹⁴ Recent class action consumer fraud lawsuits alleging the presence of PFAS in "all natural" or similarly branded products have been filed against THINX, Burt's Bees, L'Oréal, Coca-Cola,¹⁵ Colgate-Palmolive, and Tom's of Maine.¹⁶

The chemicals do not readily break down in the environment, meaning that even contamination from PFOA and PFOS may last long after their phase-out.¹⁷ Today, these and other PFAS are found in nearly half of all U.S. drinking water sources, in breastmilk,¹⁸ and even in the Arctic.¹⁹ As a result of the chemicals' ubiquitous presence, 97 percent of people living in the United States have PFAS in their blood.²⁰

PFAS in Our Food and Water

PFAS have heavily contaminated our environment on a global scale, even reaching Arctic regions and isolated North Atlantic islands.²¹ They are found in soils,²² in groundwater,²³ in air emissions from PFAS-producing plants,²⁴ and even in rainwater.²⁵

In the U.S., an estimated 45 percent of drinking water is contaminated with PFAS,²⁶ and in New Jersey, over 70 percent of public water supplies have PFAS levels above the EPA's health advisory limits.²⁷ Elevated PFAS contamination in drinking water is linked to three main exposures: 1) PFAS industrial facilities, 2) PFAS disposal sites and landfills, and 3) PFAS firefighting foam discharge sites such as military bases and major airports.²⁸ Bottled water may not prove to be a solution to avoiding PFAS in drinking water, since most bottled water contains tap water and several brands have been found to contain PFAS.²⁹

Plants can uptake PFAS from the soil and water and thereby contaminate the food chain. PFAS have been detected in corn, lettuce, tomatoes, and strawberries.³⁰ Livestock can also uptake PFAS primarily through drinking water and grazing as well as PFAS-contaminated feed.³¹ Since PFAS can gradually accumulate over time, the consumption of fish, meat, and dairy is correlated with higher blood levels of PFAS.³² One study of freshwater fish caught in the U.S. found that eating a single serving could be equivalent to drinking PFAS-contaminated water for a whole month.³³ If food items are not already contaminated with PFAS, the packaging they are enclosed in can finish the job, with elevated risks for persons whose diets are centered around processed foods and takeout.³⁴

PFAS contamination in food is linked to the use of sewage sludge (biosolids) from local wastewater treatment plants, irrigation with recycled wastewater, and pesticides that contain PFAS.³⁵ Not only are farm workers faced with new discoveries of PFAS in their bodies,³⁶ but PFAS levels in dairy products have even surpassed the EPA's proposed maximum contaminant level (MCL) for drinking water — by 355 times, for one small-scale Maine dairy farm.³⁷ The farm's shutdown, alongside other cases of dairy and meat contamination in states like New Mexico, illustrate the danger of PFAS to our food system.³⁸

As the number of PFAS compounds has increased, so too have the links between PFAS and numerous human health effects. PFAS can accumulate in the body³⁹ and impede neurological functions and behaviors,⁴⁰ increase the risk of type 2 diabetes,⁴¹ and decrease bone health and density.⁴² PFAS have also been demonstrated to cause reproductive harm as well as fetal growth restriction and lower birth weights.⁴³ Childhood exposure is associated with asthma, the development of hyperthyroidism, and delayed-onset puberty.⁴⁴ Additionally, the EPA has classified both PFOA and PFOS as likely carcinogens.⁴⁵

Current Federal Regulation

For years, major chemical corporations exploited a weak regulatory framework, buried studies showing the harms of PFAS, and lied to and otherwise misled the public, in an effort to avoid regulation and maximize profits at the expense of people and the environment.⁴⁶ More recent exposure of the harms associated with PFAS — and the litany of industry attempts to hide the truth and prevent regulation — is likely behind the increased attention given to PFAS by federal lawmakers and regulators. Still, the chemical and associated industries are powerful and

have used their army of lobbyists and campaign finance war chests to thwart meaningful action.⁴⁷

The National Defense Authorization Act (NDAA) for fiscal year 2020 added certain PFAS to the EPA's Toxics Release Inventory, which requires facilities that release covered chemicals above certain thresholds to report these amounts annually to the EPA. The additions went into effect in the 2022 and 2023 reporting years and amount to 189 different PFAS.⁴⁸ The NDAA also spurred a new rule that requires anyone that has manufactured or imported PFAS since 2011 to report to the EPA information including volumes of PFAS, uses, and disposal. The EPA finalized the rule in September 2023 and it will cover at least 1,462 PFAS.⁴⁹

In December 2021, the EPA published a list of 30 unregulated contaminants to monitor in public water systems, as required every five years under the Safe Drinking Water Act. This included 29 PFAS and will cover the years 2023 to 2025. The EPA published the first set of results in August 2023, indicating the presence of PFOA and/or PFOS in roughly 8 percent of initial sampling events submitted by public water systems to date.⁵⁰

In March 2023, the EPA proposed a maximum contaminant level (MCL) limit for PFAS of 4 parts per trillion (equivalent to 4 gallons of PFAS in 1 trillion gallons of water) for two PFAS compounds, PFOA and PFOS. Four additional compounds would be regulated as a mixture using a Hazard Index approach (which uses a formula based on the levels at which no expected health impacts would occur). The proposed rule comes with various monitoring and notification requirements and applies to public water systems.⁵¹

However, private wells, which are the main drinking water source for 17 percent of the U.S. population, are not regulated under the Safe Drinking Water Act, meaning that the EPA's MCLs do not apply and that any testing and treatment for PFAS falls on individual households.⁵² This lack of regulatory inclusion could increase the disparities in exposure to PFAS-contaminated water. In North Carolina, for example, white, affluent well owners are ten times more likely than households of color to test their well water quality and four times more likely to treat it.⁵³

However, there are several barriers to the robust regulations we need to stop PFAS contamination and hold polluters accountable. At the EPA level, these include:

- 1. Failure to properly define PFAS.** Essential to regulating a substance is having a clear definition of what is being regulated. The EPA's lack of a clear, inclusive definition for PFAS could be excluding from regulation certain PFAS found in the market.⁵⁴
- 2. Failures to collect data on chemical toxicity and environmental discharges.** Most PFAS currently in the market have little to no data on toxicity.⁵⁵ Additionally, a Trump administration loophole

enabled companies to skirt reporting requirements for certain PFAS waste discharges under the Toxics Release Inventory. The Biden EPA proposed to close this loophole in December 2022,⁵⁶ and must prioritize finalizing the rule.

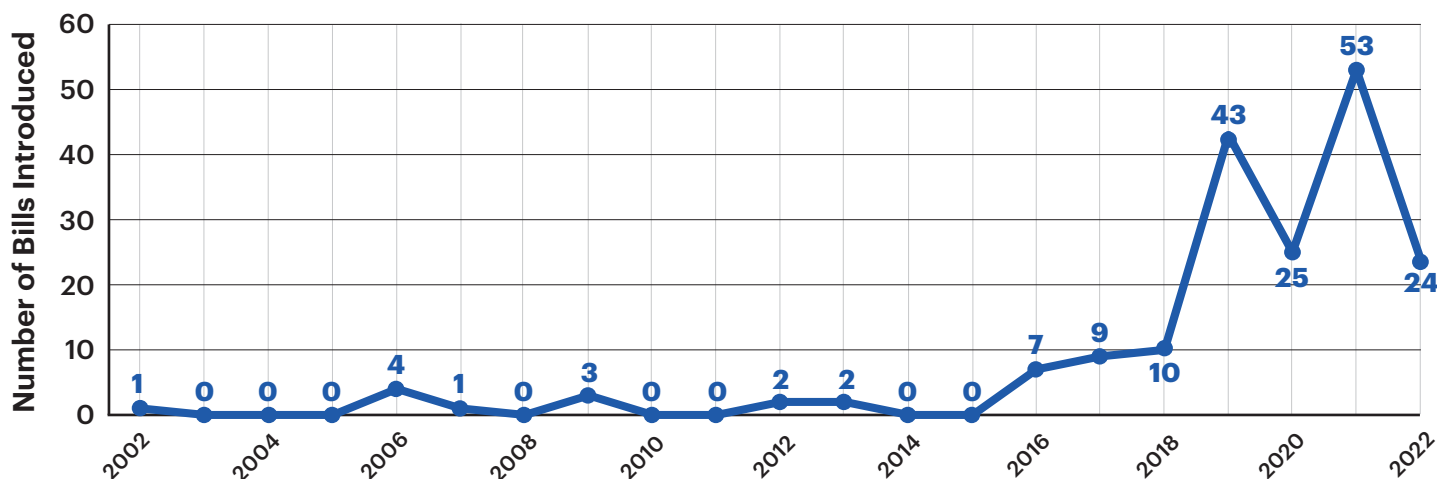
- 3. Outsized influence of the chemical industry.** The revolving door between the chemical industry and federal regulators occurs under Republican and Democratic administrations alike. President Trump's selection to head the EPA Office of Chemical Safety ran a consulting firm that has worked with DuPont.⁵⁷ And President Biden appointed Michael McCabe, a former deputy EPA administrator under Clinton who later consulted for DuPont, to lead his EPA transition team.⁵⁸

Similarly, Congress's attempts to advance PFAS legislation have been met with industry interference in the form of lobbying and campaign contributions.

Federal PFAS Legislation and Lobbying

As PFAS drew more public attention, lawmakers began introducing legislation to address the issue. Between 2019 and 2020 alone, Congress introduced more than 60 bills addressing PFAS, a marked increase from previous years. From 2021 to 2022, this jumped to over 70 bills (see Fig. 1). One of the most comprehensive was the PFAS Action Act, introduced by Representative Debbie Dingell (D-MI-12) and Senator Tom Carper (D-DE). The House versions passed by a large margin during both sessions but failed to move in the Senate.⁵⁹

FIG. 1: PFAS Legislation Across the Years (2002-2022)



Source: FWW analysis of Congress.gov

The PFAS Action Act would have designated two PFAS (PFOA and PFOS) as hazardous substances under the Superfund program. This would require facilities to report PFOA and PFOS releases while granting the EPA the authority to require cleanup and to recover costs. (The EPA proposed a similar rulemaking in August 2022.) The PFAS Action Act had numerous additional provisions, including requiring the EPA to create standards for PFOA and PFOS in drinking water and providing \$200 million each year for assisting wastewater treatment plants dealing with PFAS contamination.⁶⁰

A few bills sought Superfund status for PFAS. Others addressed polluter liability and accountability through other means. For example, the PFAS Accountability Act would have made it easier for victims of PFAS exposure to seek medical compensation from PFAS manufacturers.⁶¹

PFAS provisions managed to make it into the various National Defense Authorization Acts (NDAA), the annual funding bill for the U.S. Department of Defense. The NDAA for fiscal year 2020 added various PFAS to the EPA's Toxics Release Inventory, which requires certain facilities releasing covered chemicals to report these amounts annually to the EPA.⁶² Subsequent NDAs created a moratorium on PFAS incineration while federal rules are promulgated, and required the Department of Defense to notify farms located near military sites with contaminated groundwater.⁶³

Aside from the four NDAs, just four bills with PFAS language introduced between 2019 and 2022 managed to become law. Two were stand-alone PFAS bills that addressed contamination from firefighting foam.⁶⁴

The other two were larger bills with PFAS provisions, including one in the Infrastructure Investment and Jobs Act that funded grants to address contaminants including PFAS in drinking water.⁶⁵ However, none of these come close to stopping PFAS contamination or holding manufacturers and polluters accountable.

While Congress was crafting these bills, the chemical and related industries were engaged in a lobbying onslaught. Food & Water Watch scanned federal quarterly lobbying reports from lobbyists working on behalf of the chemical industry and others with a commercial interest in PFAS from 2019 to 2022 (the 116th and 117th Congresses). These reports detail all issues lobbied on behalf of their clients during the quarter in question, as well as total lobbying expenditures. We limited our search to quarterly reports that mention PFAS bills or issues, which collectively represent millions of dollars in lobbying expenditures toward PFAS and other interests (see Methodology).

Lobbying from the PFAS industry, 2019 to 2022

The largest current and former PFAS manufacturers spent \$55.7 million lobbying on PFAS and other issues from 2019 to 2022 (see Fig. 2). This is in addition to lobbying by the American Chemistry Council, the lobbying arm of the chemical industry whose current board of directors includes representatives from many of the same PFAS manufacturers.⁶⁶ The ACC lobbied on PFAS every quarter from 2019 to 2022, with reports mentioning PFAS totaling \$58.7 million in lobbying expenditures.

FIG. 2: Lobbying by Current and Historic PFAS Manufacturers (2019-2022)

Company	Net sales 2022 (in millions)	PFAS bills mentioned the most in lobbying reports	Total lobbying expenditures in these reports (in millions)
3M	\$34,200	PFAS Action Act of 2019	\$17.9
Archroma	\$86,800	<i>No specific bill mentioned</i>	\$0.3
Chemours	\$6,700	CLEAN Future Act	\$5.0
Daikin	\$23,500	PFAS Action Act of 2019	\$2.0
Dow	\$56,900	LIFT America Act	\$23.4
DuPont	\$13,000	<i>Several*</i>	\$5.4
Honeywell	\$144,000	CLEAN Future Act	\$0.2
Solvay	\$14,300	LIFT America Act	\$1.6
TOTAL			\$55.7

* DuPont had a tie for several bills, including the PFAS Action Act of 2019 and the PFAS Drinking Water Act

Source: FWW analysis of U.S. House of Representatives Lobbying Disclosures Database and U.S. Securities and Exchange Commission

A major target of PFAS manufacturers was the comprehensive PFAS Action Act of 2019 and 2021. Reports from lobbyists for 3M and Daikin mention the PFAS Action Act more than any other bill during the 2019 to 2022 reporting period.

Altogether, the PFAS manufacturers funded an arsenal of lobbyists to work these bills, using staff lobbyists as well as professional lobbying firms. They collectively sent 28 lobbyists to work on the PFAS Action Act of 2019 (see Fig. 3). The only bill with more lobbyists from this group was the NDAA for fiscal year 2020. PFAS manufacturers had 33 lobbyists meeting with legislators on this bill. Other highly targeted bills included the Protect Drinking

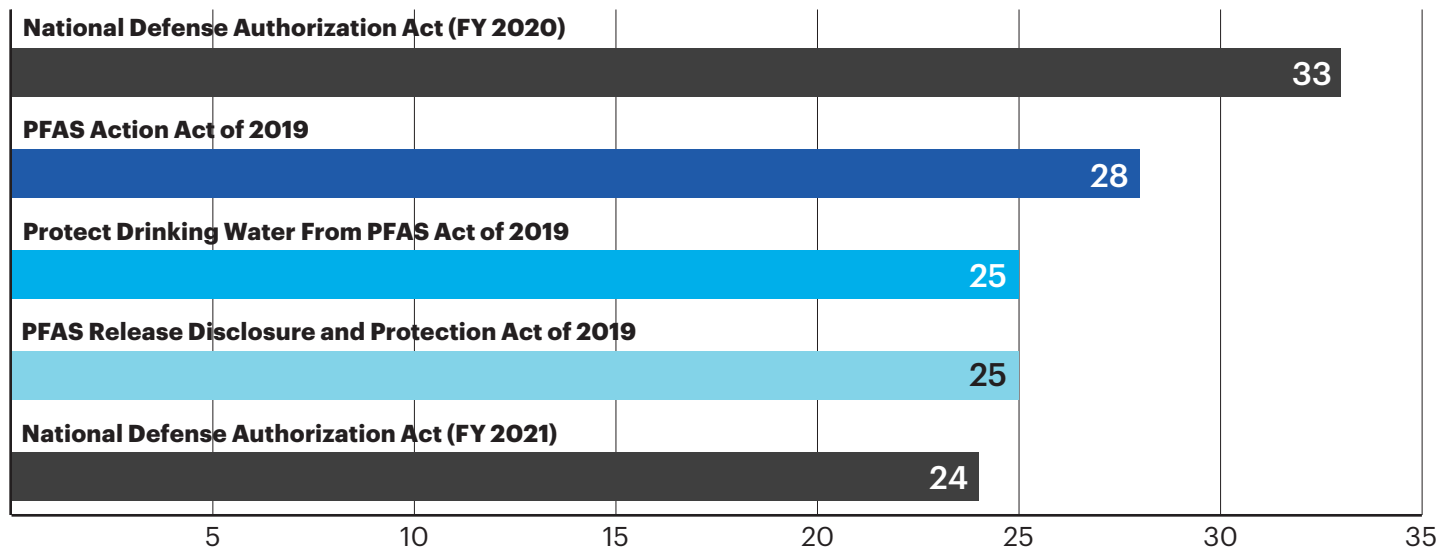
Water from PFAS Act of 2019 (25 lobbyists) and the PFAS Detection Act of 2019 (23 lobbyists). The former would have required the EPA to set regulations for certain PFAS in drinking water, while the latter would have required the U.S. Geological Survey to conduct nationwide sampling of water and soil for PFAS contamination.⁶⁷

Fossil fuel industry, Chamber of Commerce, and other PFAS users

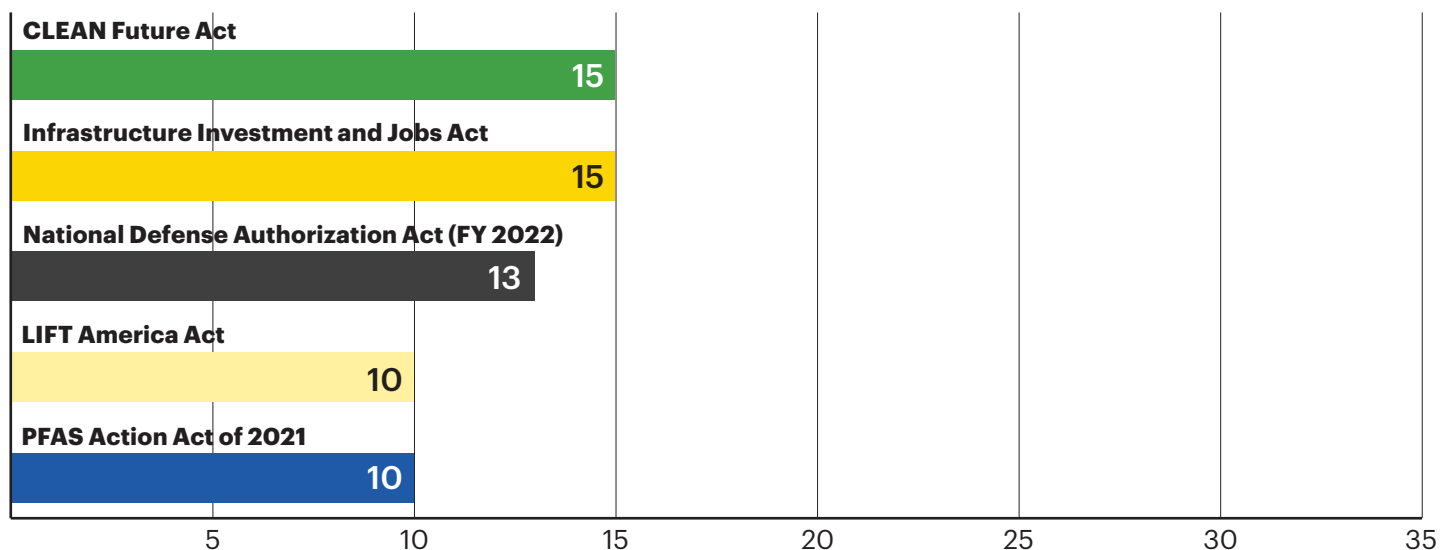
Big Oil and Gas is another prominent industry lobbying on PFAS regulation. PFAS bills that hold polluters accountable could impact the industry, given recent reports suggesting that PFAS have been used in

FIG. 3: Number of Lobbyists for PFAS Manufacturers Working on PFAS Bills (2019-2022)

116th Congressional Session (2019-2020)



117th Congressional Session (2021-2022)



Source: FWW analysis of U.S. House of Representatives Lobbying Disclosure Database

hydraulic fracturing (fracking) fluid (see "PFAS and Fracking" below).⁶⁸ Reports from lobbyists for top oil and gas companies (BP, Chevron, ConocoPhillips, ExxonMobil, and Shell) that mention PFAS total \$67 million in lobbying expenditures from 2019 to 2022. They identify several bills including the PFAS Action Act. The industry's lobbying arms are similarly engaged. Reports from the American Fuel & Petrochemical Manufacturers (AFPM) and the American Petroleum Institute (API) that mention PFAS total \$11.8 million and \$17 million in lobbying expenditures, respectively.



PFAS and Fracking

Recent analyses by Physicians for Social Responsibility found evidence suggesting that PFAS and precursors (related chemicals that can break down into PFAS) have been used in fracking fluids in thousands of wells across several states. For instance, oil and gas companies injected at least 43,000 pounds of PTFE/Teflon across 73 Texas counties. However, the prevalence is likely understated, given disclosure loopholes that allow companies to withhold chemical identities as trade secrets.⁶⁹

The use of PFAS in fracking creates additional avenues for potential human exposure through air and water contamination. Wastewater disposal poses another potential exposure route; various disposal practices include underground injection, land application, and road spreading to suppress dust or de-ice.⁷⁰ This is on top of the well-documented environmental and health impacts that fenceline communities already face from living near fracking facilities.⁷¹

Both the AFPM and the API joined a U.S. Chamber of Commerce-led coalition letter in 2022 that publicly declared opposition to using the EPA's Superfund program as a solution to accelerate PFAS cleanup. Other notable members include the American Apparel and Footwear Association, the America Forest & Paper Association, the National Cattlemen's Beef Association, and the Plastics Industry Association.⁷² These trade groups represent industries that may be impacted by PFAS legislation, given that PFAS is found in textiles, paper products, livestock, and plastics.⁷³ Collectively, lobbying reports from these groups that mention PFAS bills and issues represent \$317 million in lobbying power from 2019 to 2022.

Other notable industries with records of lobbying on PFAS bills include those from the electronics industry such as Intel, Texas Instruments, and the Semiconductor Industry Association, possibly because PFAS is used in electronics production. Broader manufacturing trade groups such as the National Association of Manufacturers also lobby on PFAS, likely because PFAS appear across a variety of industries and products.⁷⁴ PFAS have also been found in plastic bottled water, including from major corporations like Nestlé,⁷⁵ which has also lobbied on PFAS. In addition, the Airports Council International-North America has lobbied on PFAS and represents the commercial airport industry, which continues to use PFAS-containing firefighting foam given the lack of alternatives certified by the Department of Defense.⁷⁶

Campaign contributions

In addition to federal lobbying, pro-PFAS entities have contributed to political campaigns of members of Congress. The time period 2019 to present has spanned three Congresses with rotating parties in control of the House and Senate. Campaign contributions to members of both the Republican and Democratic parties have been significant and were possibly a contributing factor in significant PFAS legislation being blocked.

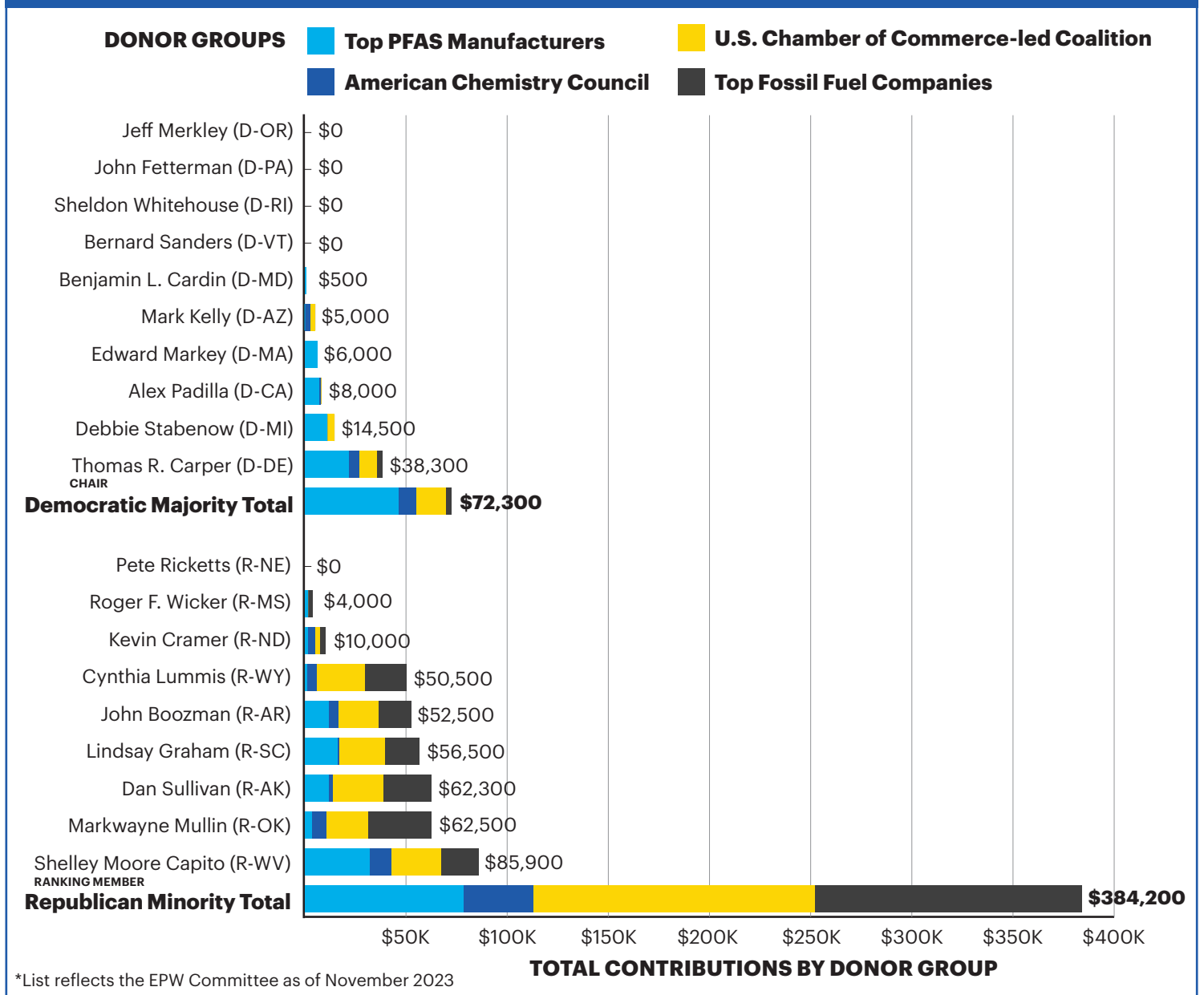
For example, an amendment to the NDAA for fiscal year 2021 would have classified two widely used PFAS as hazardous substances under the Superfund program, effectively holding PFAS manufacturers liable for contamination and cleanup costs. While Senator Thom Tillis (R-NC) has supported bipartisan efforts to strengthen PFAS regulations, he cast the vote that killed the amendment. That same day, Tillis pocketed \$1,000 in contributions from DuPont's political action committee (PAC), followed by \$3,000 from Honeywell's

PAC five days later.⁷⁷ Tillis is no stranger to campaign contributions from PFAS manufacturers and users; from 2019 to 2022, he received at least \$89,500 in campaign contributions from PFAS manufacturers, the ACC, members of the U.S. Chamber of Commerce coalition opposing Superfund status for PFAS, and fossil fuel companies.

The comprehensive PFAS Action Acts of 2019 and 2021 passed the House in their respective years. The bills were then referred to the Senate Committee on Environment and Public Works, where they effectively “died” in committee, never receiving a vote on the Senate floor.⁷⁸

While the committee makeup changes across Congresses, a majority of EPW members current as of November 2023 received campaign contributions from PFAS manufacturers and other users during our report’s time frame (2019 to 2022) (see Fig. 4). Thirteen out of 19 members received contributions from the PFAS manufacturers we reviewed. More than half received contributions from the ACC and the anti-Superfund coalition, respectively. And nearly half received contributions from a top fossil fuel company. Across 2019 to 2022, these contributions totaled over \$450,000. The bulk of this (\$384,200) went to eight out of the nine Republican minority members.

FIG. 4: Contributions to Senate Committee on Environment and Public Works Members* From PFAS Manufacturers and Users, 2019-2022



*List reflects the EPW Committee as of November 2023

Source: FWW analysis of Federal Election Commission data

The committee's ranking Republican member, Shelley Moore Capito (R-WV), has been on the committee since 2015. She represents the state where the legal action toward PFAS contamination began and has introduced PFAS legislation, including a bill with provisions similar to the PFAS Action Act. Even so, Capito did not support the PFAS Action Act of 2021, citing the potential for "unintended consequences."⁷⁹ Meanwhile, Capito pocketed \$85,900 in campaign contributions from the PFAS manufacturers and users we considered during the 2019 to 2022 Congressional sessions. The Democratic majority received comparatively fewer contributions from these same entities, although notably Chairman Tom Carper (D-DE) received more than his fellow majority members at \$38,300.

These records suggest PFAS industry influence over the EPW committee, which may have played a role in shutting down comprehensive PFAS legislation. This influence, alongside the major lobbying efforts, poses a concern for the future of any legislation that manages to pass the House and make it to the Senate committee.

Who Will Foot the PFAS Bill?

The economic burden of meeting the proposed MCL limits in drinking water will fall onto public utilities that may incur debt — and ultimately onto households in the form of higher rates.⁸⁰ The EPA estimates the annual cost for compliance for public water systems for the proposed PFAS limits at between \$764 million and \$1.2 billion over 80 years.⁸¹ The American Water Works Association provides a much higher annual estimate of \$3.8 billion for compliance.⁸² For comparison, in 2022, the U.S. spent \$12.2 billion of the federal infrastructure budget for water-related expenses.⁸³ These PFAS-related expenses are substantial costs for any community but would be a particular burden for the low-income communities that are disproportionately located close to PFAS pollution sources due to historic environmental, housing, and regulatory injustices (see "PFAS's Environmental Injustices" at right).⁸⁴

Some states and counties have begun to tackle PFAS pollution on their own. Brunswick County, North Carolina has already spent \$99 million on a treatment plant and will incur \$2.9 million in annual expenses as a result of extensive contamination in the Cape Fear River watershed.⁸⁸ Various states have begun allocating funds toward PFAS studies, efforts, and sampling, but these amount to a drop in the bucket compared to the need. The total cost to treat drinking water and address PFAS will dwarf any state spending as well as the

\$9 billion in federal funding available to address PFAS and other contaminants as a result of the Bipartisan Infrastructure Law.⁸⁹

It is time to hold polluters accountable to clean up

The EPA's PFAS Strategic Roadmap highlights steps that the agency plans to take to better protect the public from PFAS, which includes designating various PFAS as hazardous substances under the Superfund program. The EPA proposed designating PFOS and PFOA in 2022 and is considering additional PFAS and precursors, which

PFAS's Environmental Injustices

Low-income residents and communities of color are more likely to bear the toxic and economic burden of the government's lack of responsiveness to chemical exposure. Community water systems serving higher proportions of people of color are associated with having more sources of PFAS contamination (such as airports, industrial facilities, landfills, military sites, and wastewater treatment plants). They are also more likely to have PFAS concentrations above detectable limits or state-level standards.⁸⁵ This reflects the historical disparity in the siting of toxic facilities and the disproportionate reach of their emissions.⁸⁶ Households living with the reality of PFAS exposure are left to bear the health and economic burdens while polluters are generally let off the hook.⁸⁷



PHOTO CC-BY-SA © SNOOPYWV / WIKI COMMONS

DuPont settled with residents exposed to extensive PFAS contamination from their Washington Works plant in nearby Parkersburg, West Virginia in 2004 and 2017. U.S. Census data showed a 21.7 percent poverty rate for Parkersburg as of 2021, well above the national average of 11.5 percent.^b

^b SOURCE: U.S. Census Bureau QuickFacts. Available at <https://www.census.gov/quickfacts/>

could accelerate the cleanup of contaminated areas and hold polluters accountable for the costs.⁹⁰ PFAS manufacturers have previously footed the bill when forced to by lawsuits, such as DuPont settling with individuals exposed to extensive PFAS contamination in Parkersburg, West Virginia in 2004 and again in 2017. (In neither case did DuPont admit any wrongdoing.⁹¹) Regulation must create scenarios where polluters are held accountable for all immediate and long-term costs and impacts.

The price already paid

The public is already paying a high price for PFAS contamination, and the industry must finally be held accountable. Many externalized costs and tasks are routinely passed on to the public: deciding what to do with PFAS hotspots, dealing with stocks of PFAS firefighting foam, devaluation of properties and businesses, and contaminated farms. Arguably the largest externality, and the most complex one to calculate, is the cost of human health and lives due to PFAS exposure.⁹² One recent study estimated the annual health-related cost to be anywhere between \$5.5 billion and \$63 billion.⁹³ According to the EPA, the long-term health benefits from decreased PFAS exposure through regulation could eventually save the U.S. an estimated \$908 million to \$1.2 billion annually.⁹⁴

Conclusion and Recommendations

PFAS have penetrated almost every aspect of our lives because of weak regulations that have enabled chemical corporations to hide decades of toxic research and contamination while abusing systemic reporting loopholes. Research continuously shows that these chemicals are harmful to our health and are incredibly persistent, essentially remaining “forever” in the environment. Today, as our water and food remain contaminated with PFAS and as public attention towards PFAS has grown, corporations have resorted to million-dollar settlements and lobbying efforts to tackle the growing body of PFAS legislation being proposed in Congress that would hold them accountable to the multi-billion dollar cleanup bill. Without regulation that fights for polluter-pay principles, allocates funding where it is needed, and focuses on regulating PFAS as a class, PFAS will continue to infiltrate our food, water, and ultimately, our bodies.

FWW recommends that the U.S. government tackle PFAS contamination through the following actions:

- **Adopt a broad definition of PFAS**

It is critical that agencies like the EPA establish an inclusive definition of PFAS that includes all forms of these toxics. Congress and the EPA must reject all efforts to exclude very short-chain forms of PFAS by narrowing the definition of PFAS to compounds with at least two fully fluorinated carbon atoms.

- **Finalize regulations and expand them to the entire class of PFAS**

The EPA must expeditiously finalize its regulations to designate PFOA and PFOS as hazardous substances under the Superfund program and to set an enforceable limit on PFAS in drinking water. It must also finalize regulations to designate PFAS as hazardous constituents under the Resource Conservation and Recovery Act. The EPA must go further and regulate the entire class of PFAS under these laws. Communities have waited decades for these protections. They cannot wait any longer.

- **Ban PFAS**

The EPA must ban all non-essential uses of PFAS. It cannot continue to allow the industry to swap one toxic form for another less-studied form when faced with regulation. We need a firm ban on non-essential uses of PFAS. We must turn off the toxic spigot.

- **Fund PFAS data and research**

Agencies must also develop and implement nationwide detection, testing, and monitoring methods that can analyze these subclasses, including air testing methods for industrial settings. There should be health monitoring for affected service members and community members near PFAS contamination sites.

- **Invest in public water systems**

Congress must create a dedicated source of federal funding for safe water and reliable wastewater nationally. One model is the Water Affordability, Transparency, Equity, and Reliability (WATER) Act, which would provide at least \$35 billion a year — what the EPA estimates is needed annually in investments to drinking and wastewater systems over the next 20 years.⁹⁵ Annual, dedicated federal funding should support treatment plant upgrades for public water systems and testing and filtering the well water for rural households. Federal funding is necessary to help communities remove PFAS from drinking water immediately to avoid delays while seeking to recover costs from polluters under the Superfund program.

Every community deserves safe and clean water.

Methodology

Legislative and lobbying data

We compiled legislative bills related to per- and poly-fluoroalkyl (PFAS) substances using Congress.gov, searching by the keywords “PFAS,” “PFOA,” “PFOS,” and “perfluorinated,” and refining the list to include only bills introduced from 2019 to 2022 (the 116th and 117th Congresses).

We pulled federal quarterly lobbying reports from the U.S. House of Representatives’ Lobbying Disclosure database, using the same keywords and time frame, and cross-referenced this list with one generated from the Senate’s database to reveal any gaps. We then replaced original reports with their amended versions where applicable.

We compiled reports from various industries that may be impacted by PFAS legislation:

- **Major PFAS manufacturers** are based on a recent report of top PFAS manufacturers by the non-profit ChemSec⁹⁶; six appeared in our lobbying database (3M, Archroma, Chemours, Daikin, Honeywell, and Solvay). We also included Dow and DuPont, two major chemical companies that have historically manufactured or used PFAS,⁹⁷ as well as the American Chemistry Council, the chemical industry’s lobbying arm.
- **Top oil and gas producers** come from a Center for American Progress report and include BP, Chevron, ConocoPhillips, ExxonMobil, and Shell.⁹⁸ We included this industry sector because PFAS have been found in fracking fluids as well as in plastic products (fossil fuels are a major feedstock for plastic production).
- **The U.S. Chamber of Commerce (UCC) Coalition** members come from a UCC-led coalition to block efforts to designate PFAS as a hazardous substance under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), known as Superfund.⁹⁹ The coalition includes diverse members whose industries use or have products found to contain PFAS, such as the textile, paper, and cattle industries. It also includes the American Fuel & Petrochemical Manufacturers and the American Petroleum Institute.

Data analysis

Pursuant to the federal Lobbying Disclosure Act, paid lobbyists, lobbying firms, and organizations with in-house lobbyists are required to submit quarterly federal lobbying reports about their lobbying activities on behalf of their clients (such as chemical corporations). Reports identify the federal offices and legislative members lobbied, what issues they addressed, and the total lobbying expenditures for the quarter in question. Since expenditures are not separated by office or issue, it is not possible to tease out the exact amount spent lobbying on PFAS specifically. Therefore, lobbying figures in this report represent total expenditures across quarterly reports that mention PFAS, not the total spent lobbying on PFAS specifically.

The number of lobbyists from PFAS manufacturers working PFAS bills (Fig. 3 on page 7) reflects the number of individual lobbyists or firms that reported working on specific bills. We combined Senate and House versions of the same bills (i.e., “companion bills”) and accounted for overlaps between lobbyists to avoid double-counting. This analysis helps reveal which PFAS bills were targeted the most by these industries.

Campaign contributions

Data for the campaign contributions came from the U.S. Federal Election Commission (FEC) campaign receipt database. The few PFAS-related bills that managed to pass the House moved on to the Senate Committee on Environment and Public Works (EPW), where they effectively “died.” As such, we narrowed our search of the FEC database to include only 2019-2022 members of the EPW (as of November 2023) and only contributions from the aforementioned entities and time period. We also evaluated contributions to Senator Thom Tillis (R-NC) under this same methodology, as he cast the deciding vote against an amendment to the 2021 National Defense Authorization Act that would have classified PFAS as hazardous under the Superfund program.¹⁰⁰

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These Chemicals Are Forever: Water Contamination from PFOA, PFOS, and other PFAS

The introduction of per- and polyfluorinated substances (PFAS) in the mid-20th century unleashed a wave of persistent and toxic chemicals into our air, food, water, and bodies. The U.S. government must take immediate action to stop the production of PFAS and hold polluters accountable for cleanup.

<https://fwwat.ch/foreverchemicals>

The WATER Act: Restoring Federal Support for Clean Water Systems

The U.S.'s outdated wastewater systems dump hundreds of billions of gallons of raw sewage into our waterways each year, polluting water resources, endangering public health, and damaging our environment. Fifty years after Congress passed the Clean Water Act, communities need a restored federal commitment to improve clean water systems.

<https://fwwat.ch/water-act-report>

What the SLUDGE Is This?

It is all too easy to assume that once something is flushed down the drain, it disappears forever. Unfortunately, what we flush is coming back to haunt us in the form of sewage sludge. Repurposing sludge as fertilizer is promoted as a sustainable disposal option, but the practice is jeopardizing both our health and the environment, including contributing to PFAS contamination of our food and water.

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