

2022 to mark a tipping point for US federal and state PFAS regulatory actions

Blog post by Stephanie Grumet and Ben Bassett, 22 April 2022

The year 2022 will mark an inflexion point for the growing number of US state and Federal regulations impacting the class of man-made chemicals known as per- and poly-fluoroalkyl (PFAS) chemicals. These chemicals have been commonly used for decades in the US to extinguish fires, create non-stick coatings on pans, provide stain resistance to clothes and boots, establish grease barriers in food packaging, and more. PFAS compounds are both mobile in the environment and incredibly durable, rarely breaking down, earning the moniker of “forever chemicals”. There are several thousand compounds known as PFAS.

Now, the entire class of PFAS chemicals is under serious scrutiny from policymakers, environmental groups and others, facing increasing regulation, hazardous substance designations, mounting multidistrict litigation and state-level bans. And unlike most issues in Washington, there is quite a bit of bipartisan concern in Congress, since PFAS compounds are found in every US state, and do not discriminate by political party. To wit, over 50 bills have been introduced in Congress by both Republicans and Democrats between 2021 and 2022 to attempt to address PFAS.

PFAS has become characterised as a health crisis akin to asbestos years ago. At a time of partisan gridlock, addressing PFAS contamination, cleanup and remediation enjoys support from both sides of the aisle. PFAS are so widely found that the regulatory developments that are set to be proposed and finalised in the coming years will affect a myriad of industries, locations and constituencies.

In short order, the US Environmental Protection Agency (EPA) is likely to formally propose classifying perfluorooctanoic Acid (PFOA) and perfluoro octane Sulfonate (PFOS), the two most common PFAS compounds, as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). This action could occur as early as end of April of this year or could be delayed until June. It will likely be followed by a proposal to regulate PFAS under the Resource Conservation and Recovery Act (RCRA), which governs transport and disposal of materials. We also expect EPA to propose national drinking water standards later this year and take steps to begin to regulate PFAS air emissions before the end of President Joe Biden’s first term in January 2025.

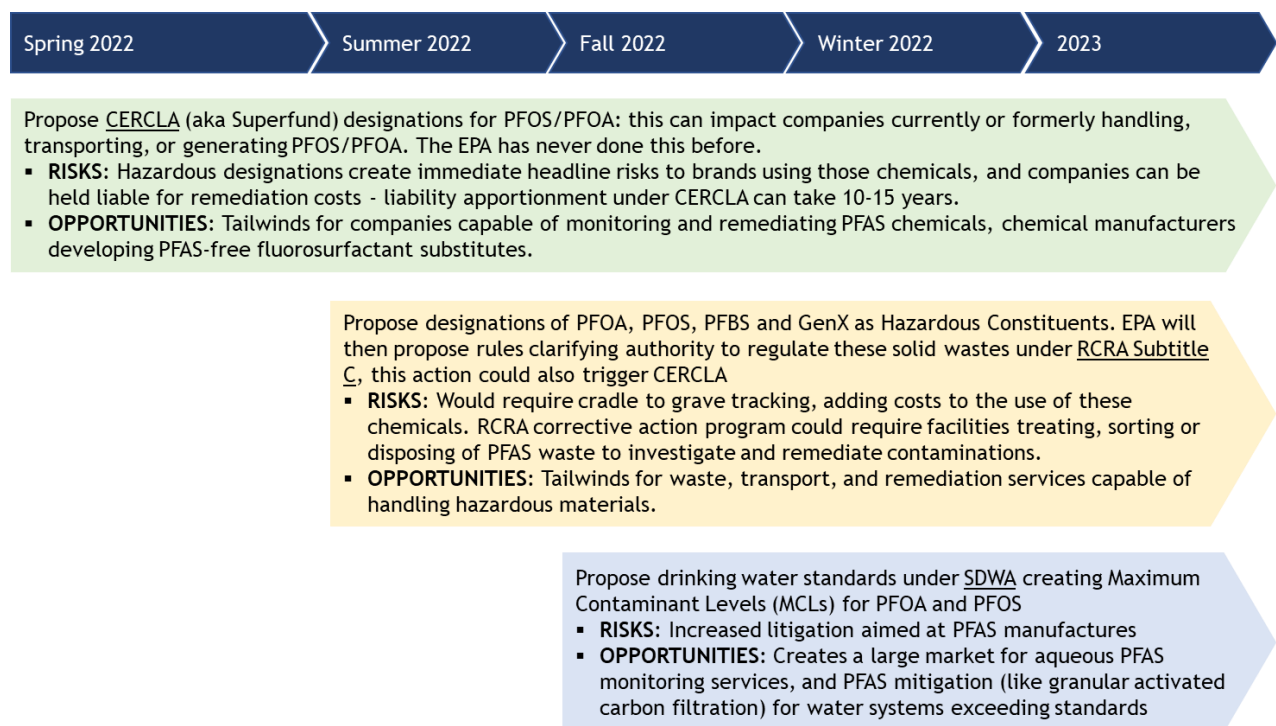
A CERCLA designation for PFOA and PFOS is meaningful

Designating PFOA and PFOS as hazardous substances under CERCLA will have significant implications. The EPA has never proposed a hazardous designation before - the list has traditionally been set through legislation. A hazardous substance designation under CERCLA would create “cradle-to-grave” requirements, which can impact companies currently or formerly handling, transporting or generating PFOS and PFOA (though PFOA is nearly phased out of production in the US). Liabilities under CERCLA, commonly known as Superfund, require parties responsible for

contamination to either perform the cleanup of the site themselves, or pay EPA to do it. Either way, a Superfund designation can take 15 years to be apportioned, so hits to an affected company's balance sheet can take over a decade. While PFAS settlements paid by companies could total billions of dollars over many years, tailwinds abound for companies monitoring and remediating PFAS chemicals, and chemical manufacturers developing PFAS-free products. We also believe the headline risks of a hazardous designation will be material for PFAS-laden products.

The EPA delivered its proposal to designate PFOA and PFOS under CERCLA for interagency review at the Office of Management and Budget (OMB) on January 10th; this process usually takes a couple of months, although we have heard that the Department of Defense (DoD) is holding up the process, raising some issues given DoD's extensive use of PFAS in firefighting foam over many years, and DoD's exposure to Superfund sites. Nevertheless, the EPA's goals of finalizing the designation by 2023 remain (see timeline schematic below). Although the designation will certainly be litigated, this will not erase the headline impact on PFAS-related brands nor the rising public awareness of the dangers associated with PFAS.

EPA's upcoming regulatory PFAS developments



Source: Environmental Protection Agency

Resource Conservation and Recovery Act (RCRA) to follow

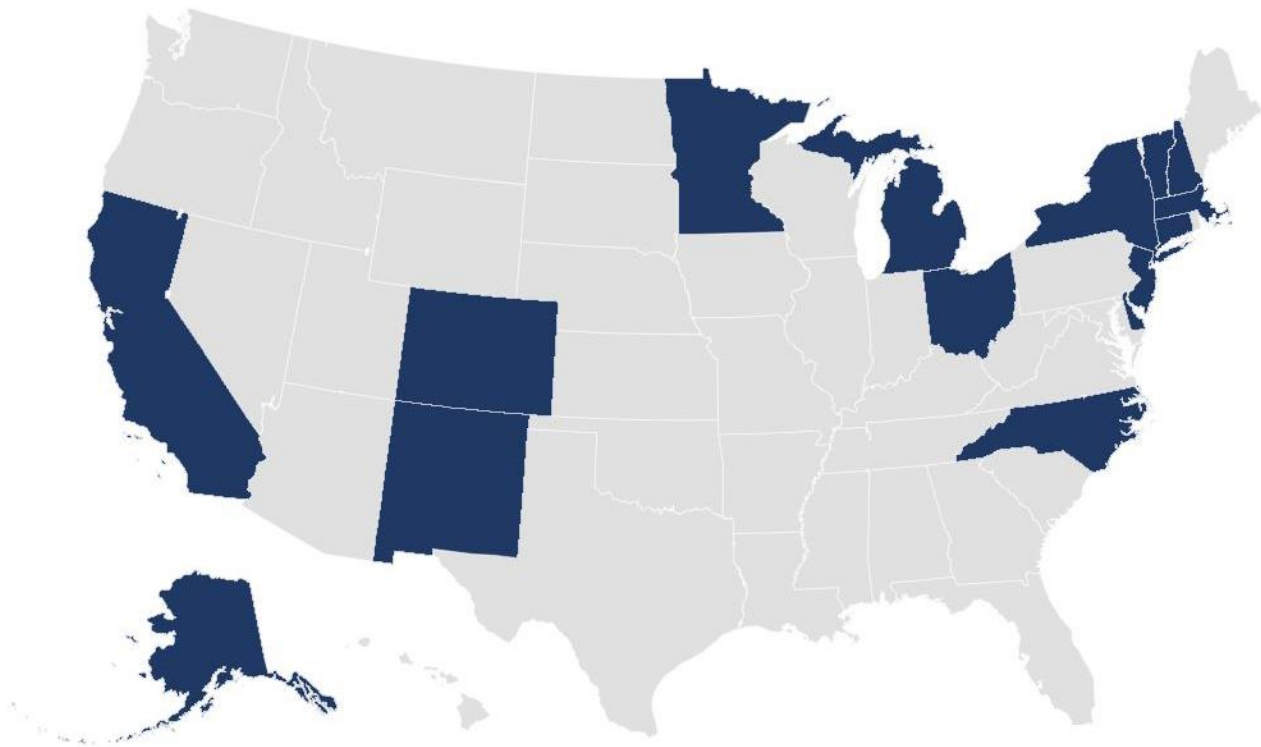
The next significant policy development is likely to be proposed Resource Conservation and Recovery Act (RCRA) designations for PFOA, PFOS, PFBS (perfluorobutane sulfonic acid) and GenX (a trade name for a newer, shorter PFAS molecule) as hazardous constituents. The RCRA action is a response to a petition by New Mexico Governor Michelle Lujan Grisham, a Democrat, requesting

that EPA take action to consider PFAS as hazardous solid waste under RCRA. Action under RCRA would be accompanied by a companion rule clarifying EPA’s authority to regulate these wastes under RCRA Subtitle C, the hazardous subsection. RCRA Subtitle C sets federal minimum standards for the generation, transportation and treatment of PFAS. This action would be positive for services capable of handling and disposing of hazardous materials - for example, this would impact the future disposal of filters that have been used to absorb PFAS chemicals from water treatment systems.

Drinking water standards

Drinking water standards for various PFAS have been proposed and are being implemented in over half a dozen states. Permissible levels of PFOS and PFOA vary by state but tend to range between 20 and 40 parts per trillion (ppt) for the combination of PFOS in addition to PFOA. EPA currently has a 70 ppt voluntary health advisory on the books. Several US states (see below) have taken the lead on setting enforceable MCLs that are lower than 70 ppt, including New York (10 ppt) and Pennsylvania (14 ppt).

US States that have proposed or adopted an MCL for PFAS compounds in drinking water, or are treading PFAS-contaminated water sources



Source: National Conference of State Legislatures

The EPA is working on developing a national maximum contaminate level (MCL) for PFAS for drinking water in the US under the Safe Drinking Water Act (SDWA). SDWA established a lengthy, multi-step process for proposing and setting MCLs that EPA has begun. In March 2021, EPA published regulatory determinations for both PFOA and PFOA as contaminants. A few months later in October, EPA invited a review panel to focus on the creation on the National Primary Drinking Water Regulations (NPDWR) for PFAS. We expect the NPDWR to be in the form of a MCL standard for PFOS and PFOA, either separately or as a combination. Drinking water standards would likely take two years after finalisation to be implemented and enforced on a national level in affected water treatment systems. Drinking water standards will require monitoring and mitigation for PFAS in water treatment systems, increasing opportunities for PFAS monitoring services along with PFAS mitigation technologies, including granular activated carbon, ion exchange and reverse osmosis.

Air emissions

While the overwhelming focus from the EPA has been on addressing PFAS pollution in water, the presence of PFAS in air emissions could be the next regulatory frontier. To be sure, a more robust focus on PFAS in air emissions is more likely in the medium- to long-term than it is in the near-term, but it is certainly an issue that is on the EPA's radar. PFAS, when airborne, can travel long distances with wind currents and when deposited can contaminate land and water surfaces. Studies from North Carolina demonstrated atmospheric deposition of PFAS several miles downwind from the Chemours' GenX manufacturing plant in Fayetteville.

The EPA's 2021 PFAS Strategic Roadmap has directed the Office of Air and Radiation (OAR) to "build the technical foundation to address PFAS air emissions to identify sources, develop and finalize monitoring approaches for stack emissions and ambient air, develop information on cost-effective mitigation technologies, and increase understanding of the fate and transport of PFAS air emissions—to inform potential regulatory and non-regulatory mitigation options." The Strategic Road map lists these activities as "Expected Fall 2022 and Ongoing," which leads us to believe the Biden administration will work to propose some regulatory structure for PFAS air emissions before the end of Biden's first term in January 2025.

In the meantime, three states have passed laws or written regulations to restrict air emissions of PFAS: Michigan, New Hampshire and New York. Pathways through which PFAS can evaporate and transform in the air into different PFAS compounds are actively being studied. In Michigan, air emissions from new or modified sources handling PFAS are subject to securing a permit, including chrome platers, paint/coating facilities, and a textile coater. These are processes that use, but do not create PFAS chemicals.

The Massachusetts legislature is contemplating a bill that would place a moratorium on new businesses emitting any PFAS air emissions. The bill, "An Act establishing a moratorium on the procurement of structures or activities generating PFAS emissions" (S.2655), was proposed on January 27th, 2022. This type of broad restriction could be difficult to pass, but we believe that if this bill gets hung up, the state will likely contemplate emissions limits on sources and/or ambient PFAS limits.

Increased scrutiny is also being targeted toward potential air releases of PFAS from incinerators. Some environmental groups are questioning whether PFAS chemicals are being completely combusted through incineration. The temperature needed to achieve complete PFAS combustion is under debate, but most research places the requisite temperature between 1,200- and 2,000-degrees Fahrenheit. Expect to see more work in this area from environmental activists and the EPA.

The oil and gas industry has, perhaps unsurprisingly, also emerged as a target for PFAS policy initiatives. A July 2021 Report from the Physicians for Social Responsibility suggested that evidence indicates that oil and gas companies have used PFAS substances in fracking in over 1,200 wells in six states. Further, a Public Employees for Environmental Responsibility (PEER) lawsuit resulted in a release of an EPA database that suggests that roughly 21,000 industrial sites in Colorado “may be handling” PFAS - PEER argues that over 85% of these sites are related to oil and gas. While the industry has pushed back on both reports and claims, the pressure that the industry is already facing from the Biden administration could be compounded as PFAS research continues, and as the EPA pivots to focusing on both PFAS water pollution and PFAS’ presence in air emissions and stacks.

A bipartisan group of US House members proposed the “Prevent Release of Toxics Emissions, Contamination, and Transfer Act of 2022” (H.R. 7142) on March 17, 2022. This bill would require EPA to add PFAS to the list of hazardous air pollutants, and a year later to promulgate final rules regulating those airborne PFAS emissions from point and area sources under Section 112 of the Clean Air Act. Introduced by Rep. Haley Stevens (D-MI), the bill has a small group of bipartisan co-sponsors: Reps. Debbie Dingell (D-MI), Rashida Tlaib (D-MI), Bill Posey (R-FL) and Brian Fitzpatrick (R-PA). While this legislation is unlikely to be passed as a standalone measure, it could be added to the National Defense Authorization Act (NDAA), a massive, annual bill that is the primary piece of legislation dealing with defence and national security priorities. The NDAA is considered “must-pass” legislation and given the proliferation of PFAS throughout military installations, PFAS-related legislation could be tacked on.

A grab bag of other state PFAS restrictions

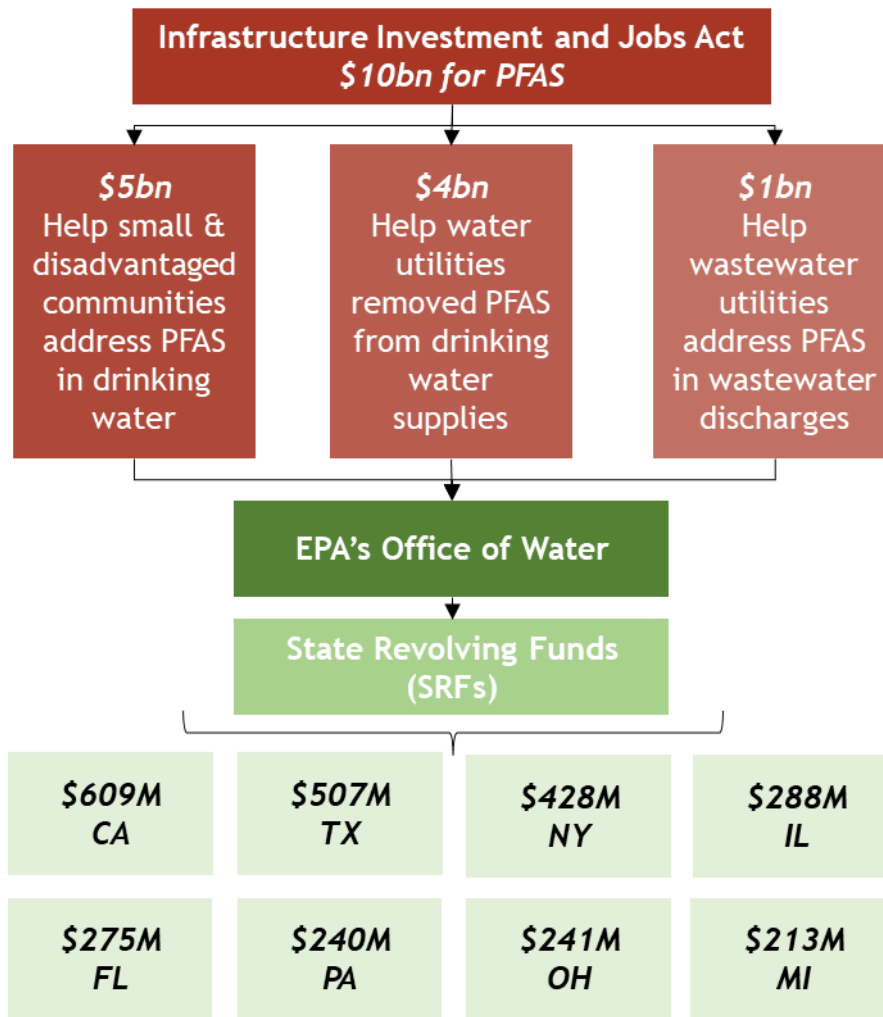
States are busy restricting PFAS contamination in new and novel ways. For example, California passed legislation to ban PFAS in firefighting foams, effective in January of 2022. California, Connecticut, Maine, Minnesota, New York, Vermont and Washington have banned PFAS in food packaging. States are also considering banning PFAS in cosmetics, and Massachusetts has a piece of proposed legislation that would restrict any new operation in the state from emitting PFAS air emissions. These restrictive policies create opportunities for PFAS-free products to gain market share.

PFAS funding emanating from Infrastructure Investment and Jobs Act (IIJA)

In addition to the regulatory triggers outlined above, significant opportunities arise from the \$10bn investment for PFAS in the Infrastructure Investment and Jobs Act (IIJA), also known as the bipartisan infrastructure bill, which was passed and signed into law in November 2021. Congress outlined three priority areas for this funding: 1) underserved communities and environmental justice areas, 2) drinking water utilities, and 3) wastewater utilities. This funding will be added to the EPA’s State Revolving Fund (SRF) program and distributed to states via grants. California,

Texas, New York, Illinois, and Florida are among the states collecting the largest funds for improved PFAS-related infrastructure.

States set to reap the benefits from federal PFAS infrastructure bill funding



Source: Global Counsel research