Old PFAS Out—New PFAS In

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Congress should restore the capacity and authority of regulators to evaluate chemical replacements before widespread use. The phaseout of two legacy PFAS brought measurable gains. The next test is whether the chemicals used in their place reduce overall exposure and harm. [1–5]

What the phaseouts achieved

England's Environment Agency found that PFOS and PFOA concentrations in rivers fell about 30% and 29%, respectively, from 2016 to 2025. In the United States, CDC reported that PFOS in blood fell by more than 85% and PFOA by more than 70% from 1999–2000 to 2018–2019. England measured rivers. The United States measured people's blood. Both trends document declines in two specific chemicals. [1–2]

What changed with the replacements

Some shorter-chain PFAS leave the bloodstream faster. Many still persist and move readily in water. England found that short-chain PFAS dominated the compounds measured in freshwater, groundwater and landfill leachate. CDC cautions that blood levels of shorter-chain PFAS may miss cumulative exposure. These findings give Congress a reason to track what replaces PFOS and PFOA across water and human exposure. [1, 3]

GenX chemicals, used in place of PFOA in some fluoropolymer manufacturing, caused liver, kidney, immune and developmental effects in animal studies reviewed by EPA. EPA also identified thyroid, kidney and developmental effects in animal studies of PFBS, a shorter-chain alternative to PFOS. Long-term human evidence is limited, so the relative risks under real conditions of use remain uncertain. [4–5]

The decision before Congress

EPA's 2024 drinking-water rule established a 10 parts-per-trillion limit for GenX and a combined hazard index for certain mixtures that can include PFBS. In May 2026, EPA proposed rescinding those provisions and the individual limits for PFHxS and PFNA, citing its interpretation of the Safe Drinking Water Act's procedural requirements. A separate proposal would allow eligible water systems to seek two extra years, through 2031, to meet the existing PFOA and PFOS limits. Both changes are proposals. [6–7]

What Congress can do

Put the burden on manufacturers before widespread use. Require disclosure of the replacement's identity and intended uses, and require manufacturers to fund independently designed testing of toxicity, persistence, breakdown products and expected exposure. Give agencies clear authority to restrict uses when evidence is inadequate.

Biological Compatibility Standard

Congress can use this opportunity to subject PFAS replacements to a Biological Compatibility Standard (BCS). Before widespread use, manufacturers should have to show what their replacement releases into food and water, what it breaks down into, and how the body handles both the chemical and its breakdown products under repeated exposure. Congress should give regulators the authority and resources to require independent testing and restrict uses when manufacturers have yet to demonstrate biological compatibility.

Fund monitoring and enforcement. Give EPA, FDA and state partners the staff and laboratory capacity to track legacy and replacement PFAS in drinking water, food and relevant industrial discharges. Help small water systems pay for testing and treatment, and publish results that communities can use.

Require public follow-through. Clarify the authority and procedure for regulating PFAS mixtures under the Safe Drinking Water Act. Hold oversight hearings and require annual reporting on what agencies measured, what enforcement followed, and what staffing or legal gaps prevented action.

Is the substitution safe

The biological compatibility question must be answered before substitution takes place. What will the replacement release? What will people be exposed to through food, water, or air? What evidence shows that it reduces harm under repeated exposure? Congress should require manufacturers to answer those questions before widespread exposure supplies the evidence decades later.

Terminate the GRAS exemption

Congress should end the exemption that allows manufacturers to introduce new uses of food ingredients they determine are Generally Recognized as Safe (GRAS) without notifying the FDA or obtaining its approval. Manufacturers should have to submit their safety evidence for FDA review before introducing a new ingredient or use. Where the evidence is inadequate, Congress should empower the FDA to require independent testing. The responsibility for demonstrating biological compatibility belongs to the companies that put these substances into the food supply.

Sources

1. Environment Agency report on PFAS in English waters, November 2026
2. CDC and ATSDR national blood trends for PFAS
3. ATSDR clinical guidance on exposure and shorter-chain PFAS
4. EPA toxicity assessment for GenX chemicals
5. EPA drinking-water health advisory for PFBS
6. EPA proposed rescission rule and 2024 rule background
7. EPA proposed PFOA and PFOS compliance extension