Actuaries Demonstrate EPA Severely Underestimated Water Remediation Costs

By Brian D. Gross

August 7, 2024

On April 26, 2024, the United States Environmental Protection Agency (EPA) promulgated the first-ever national, legally enforceable maximum contaminant levels (MCLs) for six per- and polyfluoroalkyl substances (PFAS) in drinking water. EPA has set MCLs for perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS) at four parts per trillion (ppt), the lowest level that current technology can reliably detect. The rule also set a MCL of 10 ppt for perfluorononanoic acid (PFNA), hexafluoropropylene oxide dimer acid (HFPO-DA) (commonly known as GenX chemicals), and perfluorohexane sulfonic acid (PFHxS). In addition, based on EPA's assertion that certain PFAS are often found together in various combinations, the rule regulates the mixture of PFNA, HFPO-DA, PFHxS and perfluorobutane sulfonic acid (PFBS) through the use of a Hazard Index of 1 to determine if the combined levels of these PFAS pose a potential risk to human health.

This regulation will require public water systems to monitor for these six chemicals within three years and to comply with the drinking water standards beginning in 2029. If monitoring reveals levels that exceed the regulatory standards, public water systems will be required to: (1) notify the public within thirty (30) days; and (2) reduce the levels of these PFAS below the regulatory standards.

EPA estimates that only six to ten percent of public water systems will be required to "take action" to meet the new federal standard, and that the cost of compliance should not exceed $1.5 billion annually. Moreover, EPA touts that federal funds are available to help pay for regulatory compliance, including nearly $1 billion in new funding announced in conjunction with the new rule "to help states and territories implement PFAS testing and treatment at public water systems." Several other sources, however, tell a very different story—claiming that EPA has significantly underestimated the number of impacted water systems and compliance costs. Previously, the American Water Works Association (AWWA) estimated it will be much costlier—approximately $3 billion to $5 billion annually, but that pales in comparison to a recent estimate prepared by Milliman, Inc. (Milliman), a global consulting and actuarial firm.

Milliman developed a proprietary model for estimating PFAS liabilities that incorporates a range of variables to produce individualized estimates for over 140,000 US water districts. The model allows the user to integrate the estimates into various analyses, including enterprise risk management and pricing. As a result of its model, Milliman estimates that a reasonable total expected cost to remediate drinking water systems for US water districts is *$120 billion to $175 billion.*

To put that into perspective, defendants in the Aqueous Film Forming Foam (AFFF) Multi-District Litigation (MDL) have thus far agreed to pay up to *$14.751 billion* to fund PFAS remediation of U.S. public water systems, while the federal government to date has pledged another *$9 billion*—funds woefully insufficient to clean up the American drinking water supply.

As a result, public water systems, through trade associations, have filed suit challenging EPA's MCLs. If, however, the challenge is unsuccessful it is expected that most, if not all public water systems will be forced to pursue litigation against any and all parties that may have contributed to the PFAS contamination in an effort to recover the exorbitant costs associated with PFAS investigation and remediation, rather than pass these costs onto their rate payers.

Author Brittanie McCain is an MG+M law clerk.

Attorney Advertising. This material is for general informational purposes only and does not represent our advice as to any particular set of facts; nor does it represent any undertaking to keep recipients advised of all legal developments. Prior results do not guarantee a similar outcome. © 2026 MG+M The Law Firm