

Q&A for PFAS

What is PFAS?

Per- and polyfluoroalkyl substances (PFAS) are a large group of manmade chemicals that are resistant to heat, and repel water, and oil. PFAS have been identified by the U.S. Environmental Protection Agency (EPA) as emerging contaminants in water and other natural resources. Two of the substances in the category in particular are concerning enough to carry health advisories from the EPA. They are perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS). (Source: Iowa Department of Natural Resources)

Where do PFAS substances come from?

Of the more than 9,000 known PFAS compounds, 600 are currently used in the U.S. in countless products. Many are used in many industrial applications and consumer products such as carpeting, waterproof clothing, upholstery, food paper wrappings, personal care products, some firefighting foams and metal plating. PFAS have been found at low levels both in the environment and in blood samples of the general U.S. population. (Source: Iowa Department of Natural Resources and Scientific American)

Why are they referred to as forever chemicals?

Substances falling within the PFAS category are referred to as persistent in that they do not break down and can accumulate or build up in blood systems and other organs. (Source: Scientific American)

How long has this been a problem?

Testing for approximately 22 PFAS substances began in Iowa in 2014. Over the past seven years, the laboratory testing methods and

detection accuracy have improved with the ability to measure PFAS contamination as low as 1.9 ppt. The 2021 testing revealed minute levels in finished West Des Moines water for the first time.

(Source: West Des Moines Water Works)

How did the PFOA and PFOS get into West Des Moines Water Works source water?

Use of the PFAS class of chemicals has become pervasive in the U.S. The widespread use, release and disposal of these substances have led to them being detected in soil, surface waters (rivers, lakes and streams), ground water, oceans and the atmosphere. We may never know how PFOA and PFOS leached into WDMWW wells, however, we will be studying this and reviewing what businesses and organizations may have used and disposed of these substances. (Source: West Des Moines Water Works, EPA, IDNR.)

What is the standard for the presence of PFAS?

The EPA has established a level of 70 per parts per trillion (ppt) as the health advisory standard, which offers a “margin of protection” for Americans throughout their lives from ill-effects of these substances. (Source: U.S. Environmental Protection Agency)

What would happen if the level was higher than 70 ppt?

West Des Moines Water Works would have notified its customers and the IDNR and removed the source water from production or developed treatment strategies to bring the finished water into compliance. (Source: West Des Moines Water Works)