

IOWA DEPARTMENT OF NATURAL RESOURCES

LEADING IOWANS IN CARING FOR OUR NATURAL RESOURCES

PFAS and Private Wells

PFAS History

The Iowa Department of Natural Resources (DNR) is currently implementing an action plan to protect the health of Iowa residents and the environment from a group of “forever chemicals” that were used in non-stick coatings, carpet, clothing, furniture fabrics, paper packaging for food, chrome plating, and firefighting foams. These emerging contaminants are known as per- and polyfluoroalkyl substances (PFAS) and were used in manufacturing previously mentioned products starting in the 1940s. Scientific literature has suggested that exposure to PFAS may result in health effects such as developmental defects in fetuses and infants, and certain types of cancer. These substances accumulate in human tissue and blood after exposure and have a long half-life in the body. Two of the most commonly known and potentially harmful long-chained PFAS substances, known as perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS), were phased out of production in the United States by 2017, however, China is still known to produce PFOS. The United States Environmental Protection Agency (EPA) has set the Lifetime Health Advisory (HA) for PFOA and PFAS to a combined 70 nanograms per liter (70 ng/L).

Historically, the manufacturing and use of PFAS in Iowa is relatively low compared to other states which have set their own standards for PFAS in water supplies. From 2013 to 2015 Iowa tested 57 public water supply systems and found no detections of PFAS for the six compounds analyzed. In 2018, Iowa Air National Guard (ANG) bases in Des Moines and Sioux City were found to have PFAS in soil and groundwater, thought to result from the use of firefighting foam at those bases. The DNR released Iowa’s PFAS Action Plan in January 2020, which lays out a plan to identify and prioritize testing of at-risk public drinking water systems, reduce and prevent future releases of PFAS, and to communicate to the public about PFAS. For more information, please view [Iowa’s PFAS Action Plan](#).

Private Wells and PFAS

The DNR is aware of concerns that private well owners may have regarding PFAS in their water supplies. Currently, at the federal and state level, private wells are not regulated in the same manner as public water supplies, therefore monitoring at-risk public water supplies is within Iowa’s regulatory jurisdiction, whereas private wells are not. Once the PFAS Action Plan has identified and/or tested at-risk public drinking water supplies, the surrounding area can be assessed for nearby private wells. Although the DNR doesn’t regulate testing of private water supplies, it is recommended that private well owners test their water supplies annually or anytime contamination is suspected. Private well owners can have their water tested and paid for through the [Grants to Counties \(GTC\)](#) program by contacting your local county health department.

The DNR recommends that private well owners who are concerned with PFAS contact their [local county health department](#) to discuss having PFAS testing performed with funding through the GTC program. If the county determines funding is not available through GTC, it is recommended that individuals contact Iowa certified laboratories that can test for PFAS, such as the [State Hygienic Laboratory](#) who can test for PFAS using [EPA Method 537](#), or [Pace Analytical Inc.](#) using the [EPA Method 537.1](#) and [533](#). It is recommended that private well owners abide by the EPA’s HA level of 70 ng/L. Ingestion by eating or drinking is the primary route for PFAS to enter the body. If testing reveals that your private well is at or above the HA, it is recommended that you consider using an alternative water source or install a home treatment system, especially for more sensitive users such as pregnant women, nursing mothers, and infants and children. If you have specific health concerns, consult with your doctor.

Home treatment systems for PFAS can be point-of-source (where water enters the home) or point-of-use (kitchen tap, etc.). The EPA recommends three treatment technologies for removing PFAS from drinking water: Granular Activated

Carbon, Powdered Activated Carbon, Ion Exchange Resins and Reverse Osmosis. Please contact a local water treatment company for up-to-date pricing and information on these treatment systems.

The DNR will continue to review PFAS testing results as Iowa's PFAS Action Plan is implemented. Updates on Iowa's PFAS Action Plan will be posted on DNR's [PFAS website](#).