

## **PFAS Frequently Asked Questions**

### **Updated on May 23, 2022**

What is PFAS? PFAS (Per- and Polyfluoroalkyl Substances) are a class of several thousand man-made chemicals designed to be resistant to biological, chemical, and thermal breakdown, characteristics that lead to them being referred to as "forever chemicals." PFAS are found in many products, such as non-stick pans, water repellent fabrics and application, microwave popcorn, pizza boxes and even some brands of dental floss. PFAS are also found in Aqueous Film Forming Foam (AFFF) used by some fire departments, and at all commercial service airports in the United States. Because PFAS are used in so many applications, most Americans have some level of PFAS in their bloodstreams.

Why is PFAS used at Airports? The FAA currently requires all fire departments at airports served by airlines to use AFFF containing PFAS in responding to aircraft fires. AFFF with PFAS is required by the FAA because it is extremely stable and uniquely effective in extinguishing fuel fires and preventing reignition.

Why is PFAS a problem? While no PFAS chemical has been classified by the USEPA as a hazardous substance or a carcinogen, some studies have linked exposure to certain PFAS to health issues and more studies are underway. In the meantime, the EPA has issued a "health advisory" for PFAS, setting a *lifetime* limit of 70 ppt (parts per trillion) of PFOS and PFOA - two specific PFAS chemicals - for drinking water.

What is being done regarding AFFF use at airports nationally? The FAA is currently pursuing certification of a firefighting foam that does not contain PFAS, with the goal of finding a replacement by 2023. Until the FAA approves such a product, all US commercial service airports are legally required to have and use AFFF containing PFAS for aircraft rescue and firefighting responses.

What has been done at the JH Airport? JH Airport's fire department updated its training practices several years ago to eliminate active sprays of AFFF. Though periodic tests are still required by the FAA to determine the product's usefulness, AFFF is now completely contained during these tests, and not released into the environment.

In the event of a fire-related incident (i.e., airplane fire), AFFF would be deployed to save lives. However, JH Airport's procedures after an emergency event have also been updated to contain the released AFFF to the maximum extent possible.

What more is being done at the JH Airport? JH Airport has worked with environmental consultants who are experts in PFAS to determine where PFAS exists in groundwater on and off the Airport as a result of prior use of AFFF. We found PFAS in some monitoring wells on the Airport and in domestic wells in areas south-southwest of the Airport. We have taken action to provide PFOS/PFOA-certified whole-house filters to homeowners whose wells may be affected (see eligibility boundary). We continue to work with the consultants to better understand the situation with off-Airport water wells and to determine next steps for both PFAS mitigation and possible remediation.

Does my existing home water filtration system work for PFAS? Many household filters, such as sand and granular activated carbon (GAC), are only partially effective at removing PFAS from drinking water.

Will the Board purchase a water filter for my domestic water well? The Airport tested and found PFAS in domestic water wells in some neighborhoods (see website for information) south and southwest of the Airport. Only one well in 2020 tested above the EPA's advisory limit (70 ppt for PFOA/PFOS) at 70.3 ppt; repeat testing in 2021 and 2022 showed levels had fallen below this limit. Because this area is close to the Airport, in an exercise of caution the Board offered to purchase, upon request, point-of-entry treatment (POET) water filters for all residences located within the Eligibility Boundary (see link to map on website). The Board has decided that it will, upon request, purchase and pay for the installation of water filters within the area of expected PFAS presence at 10 ppt or greater.

Why did the Board choose a filtration installation threshold of 10 ppt? Although the current EPA advisory limit for combined PFOS+PFOA in drinking water is 70 ppt, and that limit is relied upon by the Wyoming Department of Environmental Quality, several states have established lower standards. A threshold of 10 ppt matches the most stringent regulatory standard currently adopted by any jurisdiction in the United States. This was the most informed and proactive choice the Board could make for the community and the Airport.

Does the threshold set by Board include both PFOS and PFOA? Yes. The Board recommendation for a threshold accounts for 10 ppt threshold for PFOA, 10 ppt threshold for PFOS, and 10 ppt threshold for combined PFOA and PFOS.

Is it Possible the Board will have to re-visit the 10 ppt threshold limit in the future? Yes. Because the EPA has not yet classified PFOS or PFOA as a hazardous substance or identified an enforceable regulatory limit (as opposed to an "advisory" threshold), it may be necessary to reevaluate the Board's 10 ppt threshold in the future if the EPA implements more stringent guidelines.

What is the "Allowance for Variability" when referring to the chosen threshold? Regardless of the threshold selected, the Airport's environmental consultants, Mead & Hunt, recommend adding an "allowance for variability" to determine the wells eligible for filter installation. What this means is, if, based on currently available monitoring results, any portion of the associated property is expected to have PFAS in groundwater at the threshold level selected, the homeowner would receive an offer to have a filtration system installed.

EPA's 70 ppt advisory limit is based on "lifetime" exposure to PFAS in drinking water. Is the Airport Board's filter installation threshold of 10 ppt also based on lifetime exposure? EPA and state environmental protection agencies are regulatory bodies which set standards based on their evaluation of scientific data. The Airport Board is not a regulatory agency and has therefore not set any standard, based on lifetime exposure or otherwise. The Airport Board has simply selected a ppt threshold that matches the most stringent state standard and applied it to determine which domestic wells will qualify to have water filters installed at Airport expense. The 10 ppt threshold is measured using the same methods as EPA's 70 ppt advisory limit, so the threshold

selected by the Airport Board is seven times more stringent than the EPA advisory limit.

Will the Airport continue to monitor wells that have already been tested? Yes. The Airport will continue to test monitoring wells both on- and off-airport over time. Based on a scientific approach for monitoring, up to 20 off-airport residential wells will be selected for future testing during wet and dry seasons through at least 2024. Once it is determined where the best locations are for monitoring, homeowners who have participated in the Voluntary Testing Program will be contacted by the Airport to discuss their further participation as a monitoring site.

What's next? In determining our next steps, JH Airport is maintaining open communications with the National Park Service, Wyoming DEQ, the Teton County Health Department, Teton Conservation District and the FAA to stay up to date with the latest information regarding a replacement for AFFF and changes to regulations at the state and national level.

Our number one priority at the JH Airport is the safety of our operations – both for passengers and the surrounding community. Along with safety, we also make environmental stewardship a vital part of everything we do. Once the FAA greenlights a PFAS-free replacement for AFFF, we will be changing over to the new product as soon as possible.

### **FAQs Regarding Other PFAS Chemicals in Groundwater Samples**

Why is the airport only talking about PFOA and PFOS when other PFAS chemicals have been detected in our water wells? PFOA and PFOS are the primary PFAS chemicals associated with AFFF formulations. They are also the two most studied chemicals amongst the 10,000+ PFAS class of chemicals. USEPA has only issued the 70 ppt “lifetime health advisory” for combined PFOA and PFOS in drinking water. This advisory has been adopted by many state environmental agencies, including WDEQ.

What are the safe levels of the other PFAS chemicals that have been found in the groundwater? USEPA has not identified lifetime health advisory levels for other PFAS chemicals in drinking water at this time. Research studies are currently underway for dozens of PFAS chemicals, but it takes time for this research to generate enough data for USEPA to propose health advisories.

Do the filtration systems provided by the Airport remove all the PFAS chemicals that have been found in the groundwater? The selected filtration systems are certified by NSF/ANSI (National Sanitation Foundation/American National Standards Institute) Standard 53 to remove 98 percent of PFOA and PFOS from water. To date, NSF has certifications for only PFOA and PFOS. Other PFAS chemicals are probably removed using the same filtration system, but only PFOA and PFOS has thus far been certified for removal.

Why hasn't USEPA or WDEQ set limits on all PFAS in drinking water? With a class of over 10,000+ chemicals, USEPA must select the chemicals which most likely represent

a to human health and the environment. PFOA and PFOS were the first chemicals selected for evaluation and proposed health advisories in drinking water supplies. USEPA continues to add PFAS chemicals to its Unregulated Contaminant Monitoring Rule (UCMR), which can lead to setting drinking water standards. There are currently 53 PFAS chemicals in the UCMR process.

As of May 2022, USEPA plans to propose drinking water standards (MCLs – Maximum Contaminant Levels) this year for PFOA, PFOS, GenX (a PFAS substitute chemical), and PFBS (perfluorobutanesulfonic acid). If adopted by USEPA, WDEQ is likely to adopt these standards.

Where did the other PFAS chemicals found in the groundwater come from? These other PFAS chemicals detected in groundwater samples collected during JAC investigations might have come from the AFFF used at JAC. They may be impurities introduced during the manufacture of AFFF formulations or they may be degradation (breakdown) chemicals from chemical, physical and biological processes in the environment. These may also have come from other sources. For instance, household plumbing may contain Teflon based plastics in the pipe, tape, or joint compounds, which contain PFAS.