

Information Regarding Drinking Water Health Advisory Level Exceedance for PFOA/PFOS Calhoun Utilities

(Updated 2024)

On June 15, 2022, EPA issued interim updated drinking water lifetime health advisories for perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS) that replaced the health advisories issued by the EPA in 2016. According to the updated advisory levels from the EPA, some adverse health effects may occur with concentrations of PFOA or PFOS in water that are near zero. Thereafter, in March of 2023, EPA proposed a National Primary Drinking Water Regulation (NPDWR) to establish legally enforceable Maximum Contamination Levels (MCLs) for six PFAS in drinking water. The proposed rule will regulate PFOA and PFOS — as individual contaminants with an MCL of 4 parts per trillion (ppt) each. It also will regulate four other PFAS chemicals — PFHxS, PFNA, PFBS, and HFPO-DA (commonly called GenX) — as a mixture.

Pursuant to these new EPA health advisory levels and proposed MCL's, Calhoun Utilities is now in exceedance of the advisory limits and proposed MCL's for PFOS and PFOA. The levels of these two compounds PFOA and PFOS can be found in our drinking water in concentrations that range from 10-60 parts per trillion. PFBS can be found in Calhoun's water supply, but the levels are currently below the EPA health advisory level. Gen X has not been detected in Calhoun's water supply.

A timetable and summary of the EPA PFAS advisory levels and values, as well as the proposed MCLs are seen below.

PFAS LEVEL SUMMARY

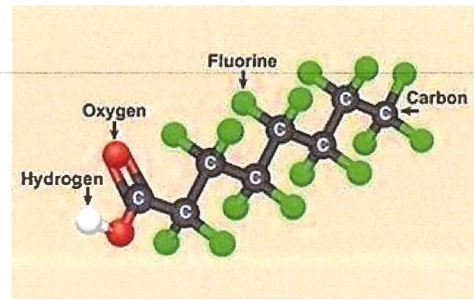
	2009 Health Advisory Levels	2016 Health Advisory Levels	2022 Health Advisory Levels	2023 Proposed Maximum Contaminant Levels
PFOS	200	70	0.004	4.0
PFOA	400	70	0.02	4.0
PFNA	N/A	N/A	N/A	1.0 (Health Index Units)**
PFHxS	N/A	N/A	N/A	
PFBS	N/A	N/A	2,000	
HFPO-DA	N/A	N/A	10	

Note: All units are Parts Per Trillion (ppt) unless otherwise noted.

** PFNA, PFHxS, PFBS, and HFPO-DA use a combined Hazard Index (HI). The HI is unitless and is based on the sum of the individual hazard quotients.

What is PFAS

PFAS is an umbrella term used to describe extremely resistant fluorocarbon compounds (see Image– Example Fluorocarbon Compound). The unique chemical bond between fluorine and carbon provides useful properties like oil, grease, stain and water resistance. PFAS chemicals have been used to impart these properties on products like carpet, textiles, food package and clothing items. Brands include Scotchguard, Stainmaster and Teflon, to name a few.



Nicknamed “Forever Chemicals,” PFAS do not breakdown naturally and tend to bioaccumulate (build up plants, animals, and humans overtime). Due to its long history of production and pathways into the environment, low-level background concentrations of PFAS compounds have been found worldwide. These background concentrations vary depending on the local environment and oftentimes the proximity to industries that used PFAS in their manufacturing operations. For example, concentrations tend to increase near urban or industrial areas and decrease in rural areas. PFAS is typically released into water through manufacturing, treatment, or other industrial means. The primary concern is that chronic ingestion of PFAS compounds can lead to debilitating or deadly health effects like cancer, immune system compromises, hormone imbalances, kidney disease, nervous system effects, and reproductive issues.

Northwest Georgia has been especially impacted by PFAS. Surface water samples in Northwest Georgia testing positive for PFAS include the Coosawattee, Conasauga, Oostanaula, and Coosa Rivers. Studies have linked elevated levels of PFAS in the region to carpet and textile manufacturers.

Description of Actions Calhoun Utilities Has Taken for Short-Term and Long-Term Modifications for the Reduction of PFAs.

Calhoun Utilities has been actively monitoring the status of the EPA health advisories and the concentration of PFOA & PFOS in Calhoun's drinking water and working to find solutions.

Like other impacted public water systems in Northwest Georgia, Calhoun began evaluating temporary emergency PFAS treatment options and installed Granular Activated Carbon in filter beds in the Brittany Drive water treatment plant, in order to reduce PFAS levels. After EPA announced proposed MCL's for PFOA and PFOS, Calhoun has continued to evaluate and develop a long term, permanent strategy to remove PFAS from the water supply and has hired engineers to assist Calhoun in designing and implement a permanent solution. Calhoun Utilities released a Request for Qualifications (RFQ) to select an engineering firm for the engineering, design, and program management services for the design and installation of water treatment long-term modifications to remove PFAS at both of our water treatment plants. In November of 2023, Calhoun Utilities received grant documents awarding funds through the Bipartisan Infrastructure Law Emerging Contaminant Grant, as well as selected a firm to identify and design the most feasible long-term treatment modification for the removal of PFAs from our drinking water.

Calhoun Utilities is actively working towards long and short-term treatment solutions to remove these PFAS chemicals from our drinking water. Calhoun Utilities is providing this information to update our customers on our ongoing efforts and so that our customers can make informed choices regarding the health and safety for themselves and their families.

Customers that have concerns about the current levels of PFOA & PFOS found in their drinking water should consider actions that may further reduce exposure. More information regarding steps you can take to reduce your risk can be found on the EPA website at: <https://www.epa.gov/pfas/meaningful-and-achievable-steps-you-can-take-reduce-your-risk>

Additional information regarding PFOA & PFOS and the current EPA health advisory and proposed MCL is available at the following links:

EPA's Drinking Water Health Advisories <https://www.epa.gov/sdwa/drinking-water-health-advisories-pfoa-and-pfos>

EPA's Health Advisories Q&A

<https://www.epa.gov/sdwa/questions-and-answers-drinking-water-health-advisories-pfoa-pfos-genx-chemicals-and-pfbs>

Proposed PFAS National Primary Drinking Water Regulation

<https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas>

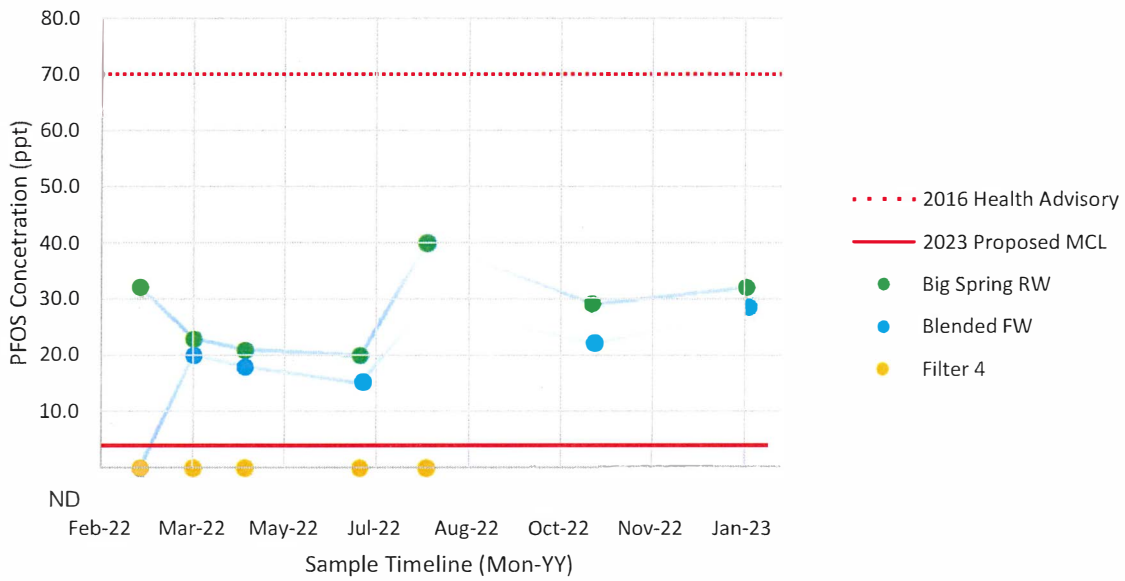
Ga EPD PFOA & PFOS Story Map with Recorded Levels by Location

<https://gaepd.maps.arcgis.com/apps/MapSeries/index.html?appid=e8f2c6a51c1c41088002350f1eabe598>

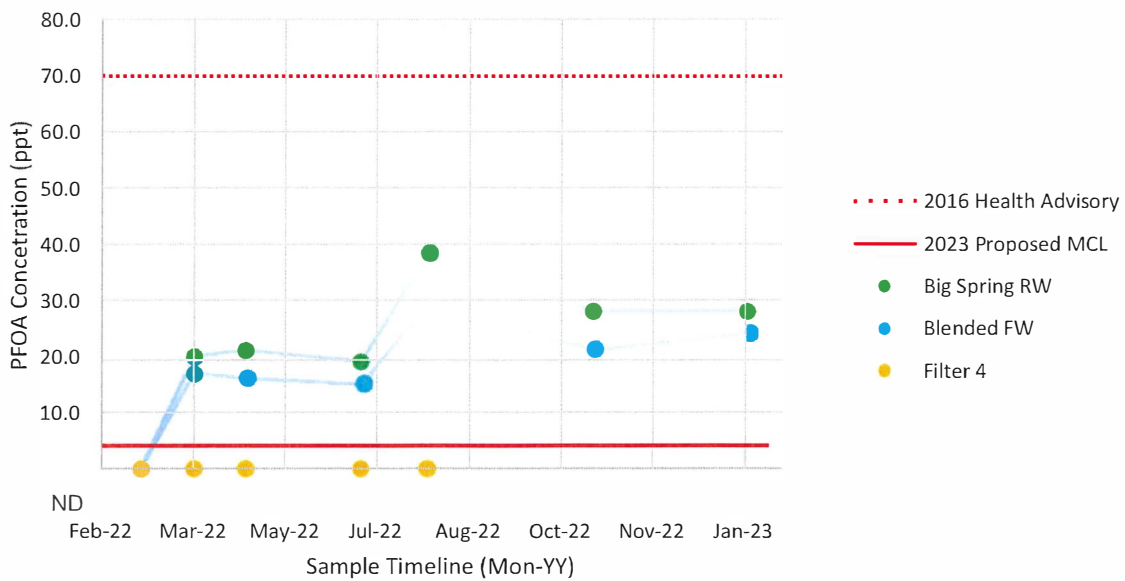
Pilot Study Conducted at Brittany Dr Water Treatment Plant

The pilot was in operation between February 2022 and January 2023. During the pilot, samples were collected from raw water, filtered water, and finished water. The data shows that no breakthrough occurred in Filter 4 during the pilot, for any species of PFAS. Additionally, blended water from the filters remained well below the 2016 Health Advisory Levels. However, blended water from the filters remained well below the 2016 Health Advisory Levels. However, the US-EPA updated their guidelines twice since the pilot began. A summary of the pilot data comparing PFAS concentrations to the recent US-EPA guidelines is provided in Graphs 2 – 4 below.

GRAPH 2 – PFOS REMOVAL DURING PILOT STUDY



GRAPH 3 – PFOA REMOVAL DURING PILOT STUDY



GRAPH 4 – HAZARD INDEX LEVELS DURING PILOT STUDY

