



PFAS MEDIA BRIEFING #3

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ACRONYMS

EPA - U.S. Environmental Protection Agency

MCL - Maximum Contaminant Level

PFAS - Per- and Polyfluoroalkyl Substances

PFOS - Perfluorooctane Sulfonic Acid

PFOA - Perfluorooctanoic Acid

Visit our website for the most up-to-date information:

scdhec.gov/PFAS

1 WHAT IS THE AMBIENT SURFACE WATER PFAS PROJECT?

- One component of the DHEC Bureau of Water's comprehensive strategy to determine the prevalence of PFAS in the South Carolina environment.
- Surface water is part of the state's hydrologic system and includes any body of water above ground such as streams, rivers, lakes and reservoirs, wetlands, and coastal waters.
- The Ambient Surface Water Strategy was approved in April 2021 following input from external stakeholders.
 - The project is guided by a Quality Assurance Project Plan (QAPP) to ensure quality assurance (QA). An essential part of environmental sampling, QA is a system of documented procedures and plans established to ensure that sample collection, transportation, analysis, and reporting are done to maximize the accuracy and reliability of the project data.
 - The project includes testing of more than two dozen PFAS compounds in ambient surface waters in more than 100 routine locations across the state. These sites include small streams, large rivers, and reservoirs characteristic of each river basin in the state.
 - The project is designed to survey both the extent of PFAS in surface waters and how changes in seasonal conditions, for example how weather and rainfall alter stream flow, impact PFAS concentrations.

2 WHAT IS DHEC'S SURFACE WATER DATA TELLING US SO FAR?

- PFAS have been detected at nearly all surface water sites though concentrations are highly variable.
- The most common PFAS compounds detected include:
 - PFOS
 - PFBA
 - PFBS
 - PFOA
 - PFPeA
 - PFHxA
 - PFHpA
 - PFHxS
 - PFNA

- It is too soon to determine seasonal trends in the data or draw conclusions on potential sources. However, because each routine surface water site is being sampled once per quarter from July 2022 through June 2023, insights into seasonality of PFAS concentrations may emerge by the conclusion of the project.
 - Data from the first two quarters (summer 2022 and fall 2022) are available on an interactive web-based application: <https://gis.dhec.sc.gov/pfas>
 - DHEC is awaiting complete data from the third quarter (winter 2023) and has begun the last quarter of surface water sampling (spring 2023).

3 RELATING SURFACE WATER DATA TO EPA'S PROPOSED DRINKING WATER MAXIMUM CONTAMINANT LEVELS (MCLs)

- On March 14, 2023, EPA issue proposed drinking water MCLs for PFOA and PFOS as well as Hazard Index calculation for a mixture of PFHxS, PFNA, PFBS, and HFPA-DA (also known commonly as Gen-X). These proposed MCLs relate only to drinking water and are not surface water regulations.
- The proposed drinking water MCLs are not the final, enforceable standards because they may change based on public comments received by the EPA.
- The PFAS chemicals EPA is proposing to regulate in drinking water are commonly observed in surface waters at varying concentrations. An important objective of the surface water project is to provide these data to better inform potential impacts to drinking water sources (e.g., surface water intakes and public/private wells).
- 80% of our exposure to PFAS comes from consumer products, such as, food packaging, microwave popcorn bags, cosmetics, treated fabrics and carpets, non-stick cookware, dental floss and more. EPA assumes that 20% comes from drinking water and that individuals drink 2.5 liters of impacted water per day, 365 days/year for 70 years (lifetime exposure).