



Randy E. Hayman, Water Commissioner

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## RE: PWD Position Statement on the Environmental Working Group's PFAS Report

The Philadelphia Water Department takes pride in providing safe, high-quality drinking water that meets all state and federal drinking water standards. Our proactive, [multi-barrier approach](#) addresses potential contamination risks at the source, and we constantly monitor our drinking water throughout the treatment process and distribution system.

The Philadelphia Water Department takes very seriously our responsibility to educate our customers about drinking water quality and our mission to protect the integrity of the drinking water we provide to the 1.6 million residents of Philadelphia, including our own families and neighbors. We provide extensive information about our drinking water quality data on our [website](#), including copies of our annual water quality reports.

The [Environmental Working Group](#) (EWG) is a non-profit, environmental advocacy group that provides consumers with health and environmental information. In January 2020, the EWG released a report on per- and polyfluoroalkyl substances (PFAS) levels in drinking water entitled "PFAS Contamination of Drinking Water Far More Prevalent than Previously Reported."

After careful review by our experts in source water protection and laboratory services, we have prepared the below statement to express our concerns regarding EWG's critical reporting deficiencies and deviations from a peer-reviewed scientific process. We also cite critical issues pertaining to EWG's presentation and interpretation of the purported sampling results.

Should you choose to read the EWG's report on PFAS occurrence in U.S. cities, we want to provide additional context and clarify important points:

- **We proactively and voluntarily test for PFAS.** Monthly research samples taken at all three of PWD's treatment plant intakes over a period of nearly one year have consistently produced results well below the EPA health advisory level. We are also testing for PFAS in tributary locations upstream of Philadelphia's intakes to better understand occurrence of PFAS in our region. None of these research efforts have produced concentrations exceeding EPA's health advisory level. These results are in the process of being vetted, analyzed, and interpreted by PWD scientists and water quality experts. We are committed to honoring the scientific process and will not release data until it has gone through all steps required to ensure adherence to a scientifically sound process.
- **PFAS are found not just in water, but are widespread across the world, even found in remote environments such as the Arctic region.** These human-made chemicals have been used in industrial applications and consumer products for decades. These compounds do not break down easily, which makes them persistent in the environment. As the science surrounding PFAS is constantly

evolving, we're working to ensure that we are following the latest scientific developments so we can best protect our drinking water for generations to come.

- **There is a general lack of transparency regarding the methodology of EWG's study:**
  - **Sample Size** – The data in the EWG report represents one sample taken at one location at one point in time. One observation does not constitute a significant body of data and does not hold up under scientific scrutiny.
  - **Sample Collection** - PFAS sample collection should be performed by trained water quality scientists who adhere to sampling and analysis protocols that have been reviewed and approved by the scientific community. PFAS sample collection is vulnerable to contamination if those collecting the samples are not well trained on the proper techniques of sample collection, handling, and transport. Protecting samples from accidental adulteration is especially relevant when substances like PFAS, already known to be environmentally ubiquitous, are measured in parts-per-trillion. For example, wearing water-resistant or stain-resistant clothing or using certain types of markers or stationery may contaminate the sample. The EWG utilized staff or volunteers to collect samples and did not specify whether they were trained or describe the sampling procedure used.

Additionally, EWG does not specify whether basic, standard scientific practices such as field blanks or duplicate sample collection were used. In any study designed to collect meaningful data, additional samples are used to ensure the absence of contamination and verify the result, respectively.
  - **Unknown Sample Location** - The EWG did not contact PWD regarding this study and instead lists the location as “within the likely service area of the Philadelphia Water Department.” Without this information, it is difficult to say that the sample collected is representative of Philadelphia’s drinking water quality.
  - **Sample Analysis** - The approved PFAS analytical method for drinking water, EPA Method 537, covers a total of 14 PFAS species. The EWG applied a modified version of this analytical method to cover a total of 30 species. The EWG did not disclose the laboratory that performed the analyses or the results of associated quality assurance/quality control testing, which further inhibits our ability to review their work with the same level of scrutiny as a peer-reviewed scientific publication.
- **The ability to detect the presence of these compounds is advancing faster than the ability to understand their public health implications.** Advances in analytical methodologies allow us to detect concentrations in the parts-per-trillion (ppt) magnitude- the equivalent of a single grain of sand in an Olympic-sized swimming pool. The science around many aspects of these compounds, including potential public and environmental health implications, is evolving. We track these scientific developments so we can continue to ensure the safety of our drinking water. Our experts collaborate with neighboring water utilities and participate in discussions with peers at the state and national level to better understand PFAS issues. By sharing information with other regional water

utilities and studying the latest science, we are prepared to address the challenges and risks associated with PFAS and follow the Safe Drinking Water Act process.

- **EWG is misleading in their application of the EPA Health Advisory Level.** The accepted health guideline is the current EPA health advisory level of 70 parts per trillion, but this is only for the total concentration of two compounds: perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) combined. In the text of the report, the EWG uses this health advisory level by comparing it to the sum of 30 individual PFAS compounds, which is misleading to readers. EWG's claimed results, reportedly obtained from the likely service area of PWD, are **actually more than five times below the EPA's health advisory level** for PFOA and PFOS combined (7.7 ppt + 5.3 ppt = 13.0 ppt), with individual results below New Jersey's proposed PFOA and PFOS maximum contaminant levels (14 ppt and 13 ppt, respectively).
- **PFAS levels in Philadelphia's drinking water are well below accepted health advisory levels.** When presenting drinking water data, the EWG uses health guideline values from a variety of sources including different agency goals and recommendations, some that have never been finalized, to provide a health benchmark for each contaminant. The health reference level provided by EWG is 1 ppt as a total concentration for the sum of all species of PFAS. There are estimated to be more than 3,000 PFAS species, with some estimates approaching 5,000, making testing for and compliance with this proposed guideline unrealistic for any water utility or private well owner.

The Philadelphia Water Department appreciates the EWG's effort in communicating the pervasiveness of PFAS contamination in the environment to the public. However, we have many concerns with the manner in which their study was conducted and conclusions that were drawn. PFAS are a complex environmental problem, with many sources beyond water, that will require many different policy and technological solutions to address existing contamination and control the creation and introduction of PFAS into the environment.