

Baseline Testing for Per- and Polyfluoroalkyl Substances (PFAS) in North Carolina Public Drinking Water Sources: Background Information

- Raw, untreated water samples were collected by NC State and Duke University researchers from municipal surface water intakes and ground water wells throughout the state during 2019 (Round 1). Water systems having multiple wells each selected one well for this initial round of testing.
- Samples were analyzed by liquid chromatography tandem mass spectrometry (LC-MS/MS) to determine the concentrations of individual PFAS. These levels are reported as nanograms per liter (ng/L) which is the same as part-per-trillion (ppt).
- Report files have been e-mailed to each water system tested and to the NC Department of Environmental Quality (DEQ) and NC Department of Health and Human Services (DHHS). These reports indicate the measured concentrations for up to 50 targeted PFAS as well as the method reporting limit for each individual PFAS.
- The US EPA has established a non-regulatory, lifetime health advisory level (HAL) of 70 ppt for combined levels of two legacy (phased out of production) PFAS in drinking water: perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS). Similarly, NC DHHS has established a provisional health goal of 140 ppt for GenX (one new replacement PFAS) in drinking water. Concentrations of individual PFAS are also displayed in a bar graph for comparison to these reference levels.
- Once the results have been peer-reviewed, comprehensive PFAS data for all sites tested will be made available via an interactive data hub and mapping tool on the NC PFAST Network website: <https://ncpfastnetwork.com/>
- Questions regarding these water reports may be submitted to the NC PFAST Network e-mail at: NCPFASTNETWORK@unc.edu

