Memo

To:	Dr. Derek Ross, Dr. Leigh Gruwell, Dr. Stewart Whittemore
From:	Carolina Bell
Re:	PFAS Testing Fact Sheet Meta-Analysis
Date:	April 7, 2025

This memo describes the goals, development, and design choices for the per- and polyfluoroalkyl substances (PFAS) Testing Fact Sheet.

Introduction

This document was produced for ENTM 6660: Scientific Illustration with Dr. John Beckmann. The final product is an 8.5” by 11” fact sheet, which is designed for both print and online viewing.

Audience and Purpose

The purpose of this document was to create a one page fact sheet on *Method 537.1 Determination of Selected Per- and Polyfluorinated Alkyl Substances in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS)* (Shoemaker & Tettenhorst, 2020) from the U.S. Environmental Protection Agency. The audience would be members of the public undergoing PFAS testing for drinking water. The document seeks to give transparency on the process.

Significance

Given distrust in science (Itchuaqiyaq et al., 2023; Jordan et al., 2011; Wynne, 1992), this work is an example of how technical communicators can facilitate community engaged research. Given that PFAS is an emerging health concern and a previously unregulated group of chemicals (Novak et al., 2023), there are high levels of distrust. This fact sheet shows how documentation can help bridge the public/science binary (Orthia & de Kauwe, 2023) through transparency and awareness of research policies. PFAS testing in drinking water is applicable to all people and information should be accessible to non-scientists.

Goals and Document Development

My main goals for this document were to illustrate the process, while also creating a document that could be used as a fact sheet to provide an overview of the sample collection process. I used Adobe Illustrator to create vector graphics and exported as a PDF. Vector graphics allow for future resizing for different outputs (Kimball, 2007). I used an iterative design process to create the finalized version.

Design

Style

Form is constrained by function (Cairo, 2013) and the goal of a fact sheet dictates a specific design. Given the design of the original method, simple black text on a white page and a formal

scientific style, I wanted the fact sheet to look cohesive with the original document. I used a sans serif font is used for web readability (Wyatt et al., 2017). The white background allows for figure-ground contrast for the graphics (Kimball, 2007).

Graphics

According to Cairo (2013), graphics help clarify the message, not simplify it. I used enclosure and explicit references through titles to form a clear relationship between graphics and text in the document (Kimball, 2007). Design principle of enclosure and the law of common region allow the boxes to be distinguished as distinct steps. Because my purpose was to show how something looks, I used representational illustrations (Kimball, 2007). I used line art to create an abstracted version of what users will see to show the most important parts. On the visualization wheel (Cairo, 2013), my document is a mix of intelligible and complex components. The illustrations are unidimensional and only reflect the given step of the procedure. The design relies more towards functionality over decoration, in order preserve space on the page.

References

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