An Exhibition of PFAS Removal Techniques

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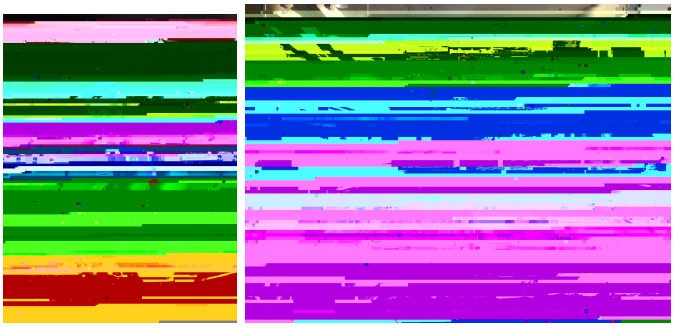
As an aspiring science museum exhibition designer, my research focused on how we communicate scientific findings to the public. I have been interested in PFAS (also known as Forever Chemicals) since high school and often hear misinformation about these chemicals. I wanted to understand how we can better communicate about PFAS to the public.

PFAS are per- and polyfluoroalkyl substances which are large chemical compounds that include carbon and fluorine and are incredibly difficult to break down. As PFAS concentrations grow, they pose health risks to humans, animals, and plants such as cancer and birth defects. Removing PFAS from the environment is difficult. There are two primary types of techniques being studied for PFAS removal from water: separation and destruction. Separation is when they use a complex water filter to remove PFAS from the water sources. These techniques are costly and require a lot of time and patience. Destruction techniques act more like scissors cutting the large PFAS chemicals into

Phase two focused on science communication. I had to take all of the data and reports I had read to identify my audience as educated college students, professors, and staff. This informed how I talked about PFAS and what facts I chose to showcase. During this portion of my research, I used my grant funds to attend the New England Museum Association's annual conference and visit the Ecotarium and museum professionals and exhibition designers about best practices for science communication within the field. This further informed my approach to discussing PFAS in my exhibit.

Phase three was the actual design and build of my exhibit. I used SketchUp - a computer aided design program - to build a mock up of my exhibit. I then acquired materials to build all of the physical elements of my exhibit such as models of PFAS and an environmental model that shows places of PFAS exposure. At the conclusion of my exhibit build, I presented the exhibit and my research to my peers and Druckenmiller Hall faculty.



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Funded by the Bowdoin College Fall Research Award