

Sensing & Decision Support for PFAS Contamination

OVERVIEW

Per- and polyfluoroalkyl substances (PFAS) are a class of thousands of synthetic chemicals.

PFAS, found in many consumer and industrial products, persist in the environment and bioaccumulate in the body.

PFAS are found in drinking water, air, and soil at locations across the globe.

Certain PFAS may be linked to harmful health effects in humans and animals.

RESEARCH GAPS

Sensing. Capabilities are needed to screen for PFAS outside of a laboratory, in a relatively inexpensive way, that can provide results faster than the weeks to months for samples analyzed in conventional laboratory settings.

Making Sense. There is a gap in understanding how PFAS move through surface and groundwater, as well as PFAS trends over time.

Acting. Additional research and analysis are needed to determine best remediation approaches and policy considerations given PFAS is a whole-of-nation challenge.

MITRE CAPABILITIES

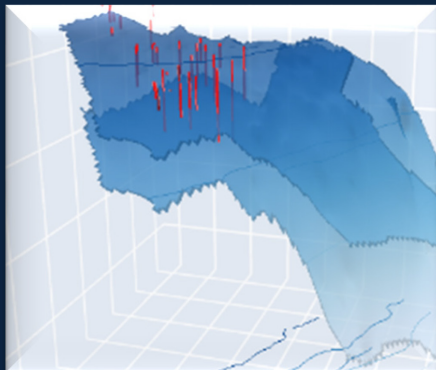
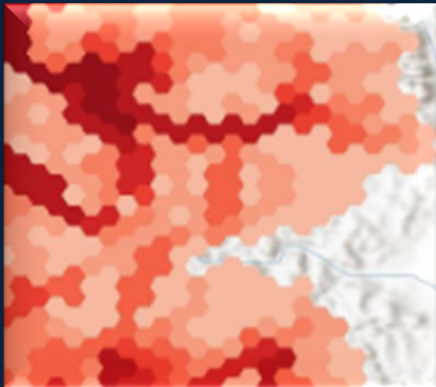
MITRE and University of North Carolina (UNC) at Chapel Hill are developing realtime, low-cost PFAS sensors, paired with geospatial models and decision-support solutions, that would enable more rapid, lower-cost detection and remediation of chemical contaminants across the defense and public sectors.



Realtime PFAS Detection in Water



Decision Support for PFAS Sampling



Decision Support for PFAS Remediation

