



# Solutions for Addressing PFAS

## Perspectives from a Researcher

Einstein's Approach to Solving an Important Problem in One Hour:

- 40 minutes studying
- 15 minutes reviewing
- 5 minutes solving

Information gaps remain for many PFAS chemicals:

- Which subsets of PFAS are most hazardous and what thresholds are anticipated to avoid adverse outcomes ?
- Where do the most significant exposures occur?
- What are effective approaches to preventing, treating or remediating PFAS contamination?



## Addressing Information Gaps: Toxicity

- Developing standard, non-regulatory human toxicity values for informing risk assessment and management decisions
  - Engaging with States, other federal stakeholders
  - Depends on availability of peer-reviewed data and studies
- Applying computational toxicity screening tools to a representative set of PFAS to better understand the 'PFAS Universe'
  - Collaboration with NIEHS/National Toxicology Program
  - Set stage for more targeted (Tier 2) testing, prioritization



## Addressing Information Gaps: Exposure

Working with States to develop, test, apply measurement methods

- Validation of **standard** reference sampling methods for **known** PFAS in water, solids, air
- Development and application of **non-targeted** approaches for discovery of novel, **unknown** PFAS in water, solids, air
- Technical assistance in applying methods, quantifying exposures, characterizing sites and systems



# Addressing Information Gaps: Risk Management

- Developing methods to characterize sites and systems - to understand the 'problem' – sources, hazards, exposures, priorities, mitigation options
- Developing and evaluating robust, reliable, and sustainable water treatment techniques to reduce exposures while preventing unintended consequences and providing flexibility for future needs
- Risk communication – Integrate and synthesize information as it evolves, present to stakeholders in a manner they can understand