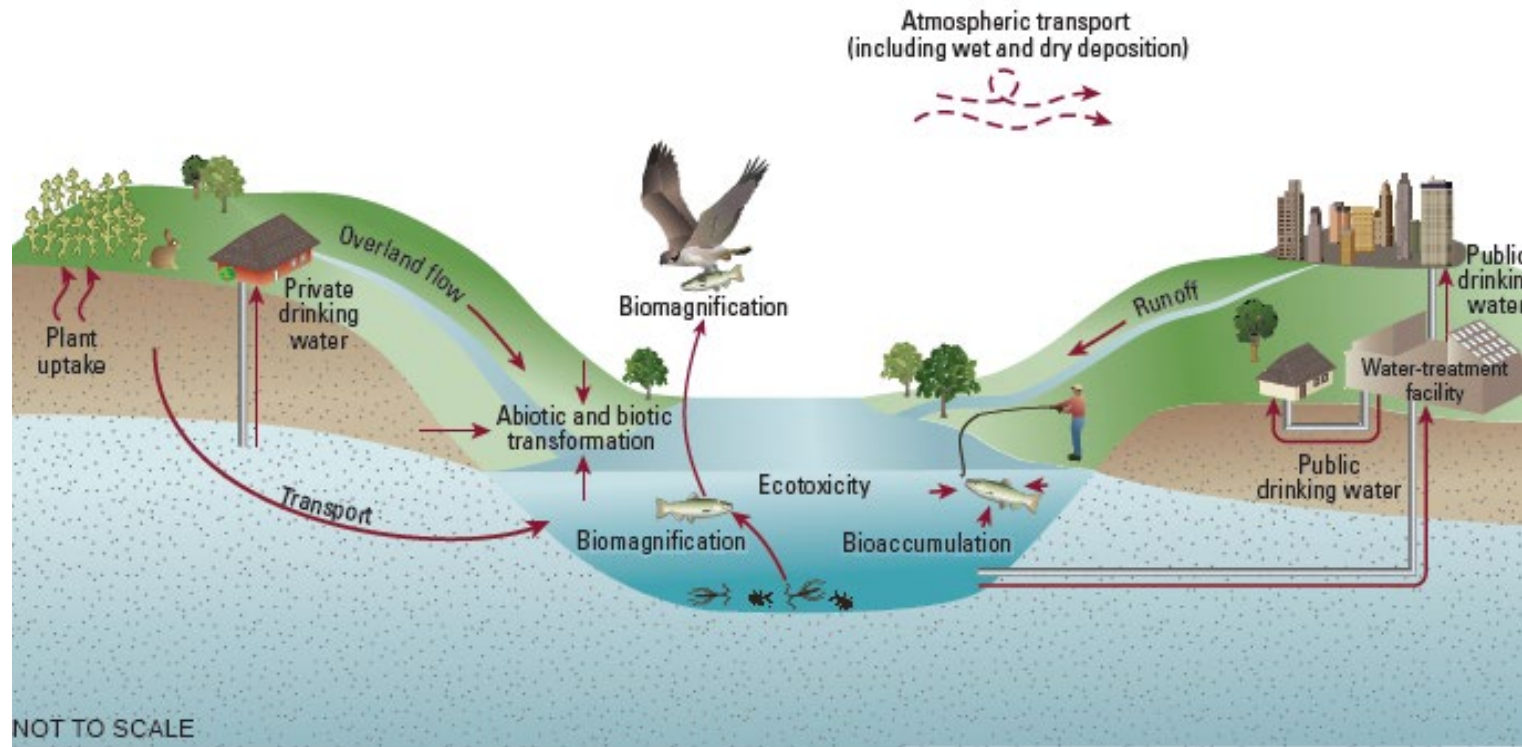


The Use of Passive Sampling Methods for Environmental Monitoring of PFAS

May 2025



(figure from Tokranov and others, 2021; USGS Circular 1490, <https://pubs.usgs.gov/circ/1490/cir1490.pdf>)

We face common challenges in a broad, rapidly evolving, complex topic...

Objectives of quarterly meetings include:

- Knowledge transfer
- Maximize leverage and collaboration
- Discuss and identify priority areas for unified technical approaches across the watershed
- Identify tangible ways the CBP partnership (TCW) can assist with promoting scientific consistency



Development of Passive Sampling Methods

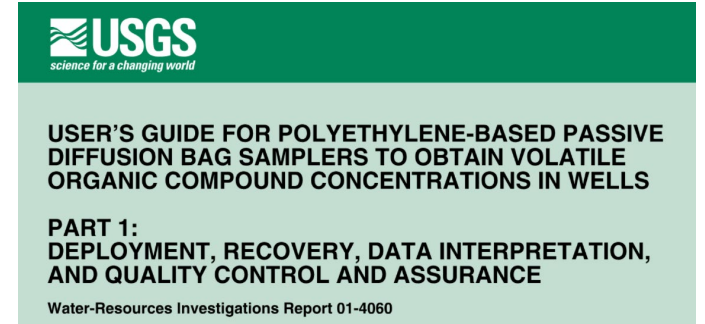
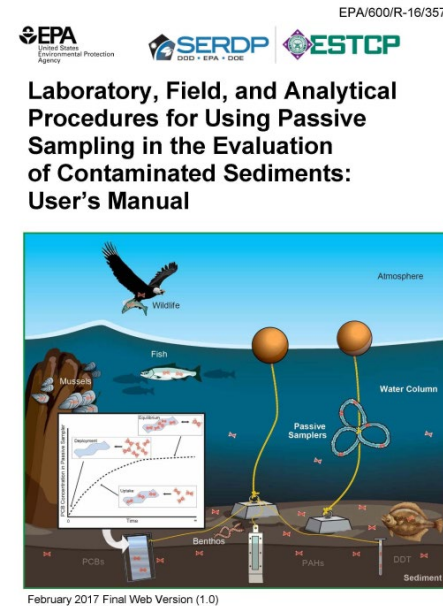
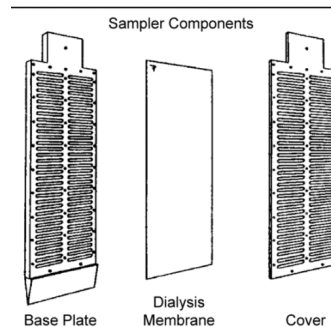
- Time-integrated sampling (provide time-weighted average concentrations)
- Mimics exposure conditions
- Improved detection limits for hydrophobic contaminants
- Limited investigation derived waste
- Cost-effective



pubs.acs.org/est

Codeployment of Passive Samplers and Mussels Reveals Major Source of Ongoing PCB Inputs to the Anacostia River in Washington, DC

Nathalie J. Lombard, Mandar Bokare, Rachel Harrison, Lance Yonkos, Alfred Pinkney, Dev Murali, and Upal Ghosh*

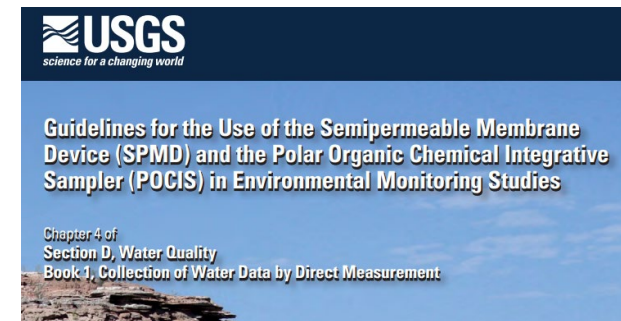


Technical and Regulatory Guidance

Protocol for Use of Five Passive Samplers to Sample for a Variety of Contaminants in Groundwater



February 2007



Passive Sampling Methods for PFAS

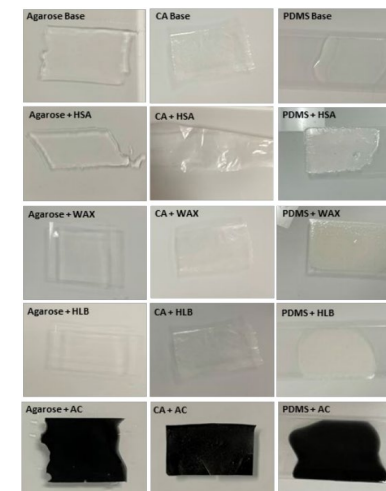
- Adaptation of POCIS for PFAS (Alvarez)
- 2020 Statement of Need - ESTCP
 - Polymeric thin-films (Ghosh and others)
 - Ion exchange membranes and fibers (Blaney and others)
 - Agarose Gel/graphene monolith, tube samplers (Lohmann and others)
- Numerous commercially-available samplers including:
 - Osorb media sampler – Sentinel™
 - Pfassive™
 - Insight™ (Battelle)
 - POCIS (EST)



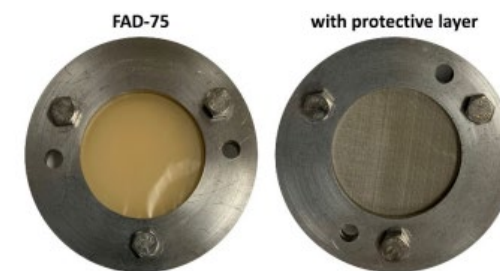
Photos: Environmental Sampling Technologies, Inc.



(Lohmann)



(Ghosh and others, 2022)



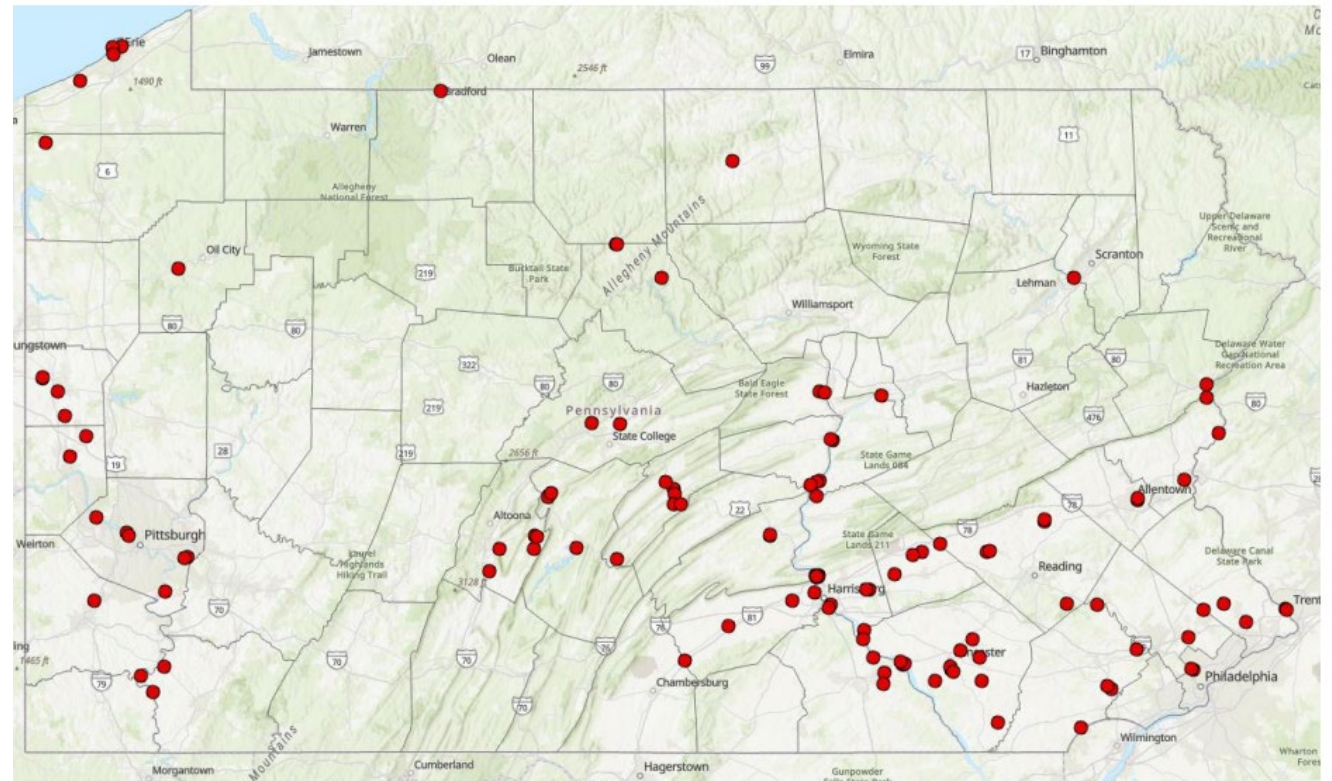
(Blaney and others, 2021)

***Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government*

Demonstrated use of passive sampling for PFAS monitoring in the CBW- PA DEP

- Since 2019, PA DEP has included PFAS analysis in their data collection in surface water using POCIS
- Stay tuned!

Passive Sampler Sites 2013-2023



Technical presentations to improve our understanding of passive samplers for PFAS monitoring:

- Dr. Erika Carter, Arcadis U.S.
- Dr. Brent Pautler, SiREM
- Dr. Mi-Ling Li, University of Delaware

Questions/Answers and Menti/Discussion

