Agency Announcements

BAA Innovative Technology Projects: PFAS Characterization

Technical Focus	Field Sites	Complete
PFAS Mass Flux as a Tool to Assess Need for Source Zone Remediation	Charleston	Mar 2024
Optimal Use of Passive Samplers for PFAS in Groundwater and Surface Water	Dyess, Hanscom, Pittsburgh	Aug 2024
Tempe Cell Method to Evaluate Leaching Potential at PFAS Source Zones	Cannon, Cape Cod, Eielson, Ellsworth	Sep 2024
Field Validation of a Modified HYDRUS Model for Simulating PFAS Leaching in the Vadose Zone	F.E. Warren	May 2025
Rapid Field-scale Characterization of PFAS Source Zones with Electrical Geophysics	Charleston, F.E. Warren	Aug 2025

BAA Projects: Jeffrey.Davis.90@us.af.mil

Restoration Technology Webinars: Monthly, 2nd Wed @ 2pm (Eastern)

https://www.afit.edu/CE/index.cfm (Click on “Speaker Series”)

Development of Site Closure Metrics

End State Vision Implementation Strategy

- Has the site identified a comprehensive End State Vision plan?
  - Does it include technical, regulatory, risk, and stakeholder components?
  - Specific components to support transfer to LM/NNSA or other entities?
- Team provided support to sites during development of the implementation strategy for
  - Developed template to include all identified components
  - Team developed draft strategy that was provided to the sites for review, followed by team interview
  - OR-ETTP, LANL, WV, and Moab completed; RL, Ports, Pad, ETEC remaining

For More Information
Contact
grover.chamberlain@em.doe.gov

End State Vision Implementation Strategy

End State Vision for groundwater is to have final risk-informed remedy decisions that are:

1) protective of human health and the environment for current and future anticipated land use

2) inclusive of appropriate regulatory, community, Tribal Nation, and/or stakeholder acceptance

3) respectful of equity, environmental justice, climate resilience, time, and budget factors

4) sustainable (minimized operations, maintenance, labor, long-term monitoring, cost, potential contaminant migration, risk, etc.) over the management life cycle

5) ready for transfer to Legacy Management, NNSA, or other appropriate entities for future beneficial use

DOE Draft PFAS Storage & Disposal Guidance

- Provides guidance on the Department of Energy (DOE) sites' storage and disposal of materials containing PFAS, whether generated through routine operational processes or from recovery of emergency use discharges or spills of PFAS-containing materials
- Recommends a process for requesting approval for disposal of PFAS-containing waste from the Head of the Departmental Element (HDE)
- Finalization and publication pending EPA's finalization of their 2023 Interim PFAS Destruction and Disposal Guidance – Version 2 (expected end of 2023)

For More Information
Contact
Hannah.hidle@em.doe.gov

Superfund Research Program (NIEHS)

National Institute of Environmental Health Sciences
Superfund Research Program

Congratulations to Dr. Michelle Heacock, who was named permanent Director of the Superfund Research Program.

Monthly Research Brief #347 (Nov 2023)

Current Research Brief 347: High-Temperature Biochar for Arsenic Remediation. Visit page for full story, publications, and podcast.

Webinar: Tools for PFAS Site Characterization!

Session III - PFAS Reference Materials, Libraries, and Passive Sampling, Nov 8, 2023, 2 – 4 PM EDT

To register and view the archives: bit.ly/SRP-PFAS2023

September 2023 SRP Digest:

Featuring Work with Native American Communities

Highlights SRP's research to understand potential sources of exposure and identify solutions to protect health in Native American communities.

Upcoming Events

- **Dec 4 - 6, 2023** SRP Annual Meeting, Albuquerque, New Mexico

Ongoing Solicitations

- Multi-Project Center Grants, released Apr 17, 2023; due Oct 2, 2023
- Small Business Innovative Research Grants Due Jan 5, Apr 5, Sept 5, also please see new initiatives on Climate Change
- Mechanism for Time-Sensitive Research Opportunities in Environmental Health Sciences (R21) Monthly receipt dates
- Virtual Consortium for Translational/Transdisciplinary Environmental Research (ViCTER) Due Feb 1, 2024

For More Information Contact: Heather.Henry@nih.gov;
Sign Up for Updates: SRPinfo@nih.gov **Website:** www.niehs.nih.gov/srp

Naval Facilities Engineering Systems Command

- **Navy PFAS Reading Room -** An Environmental Restoration Program Public Website, with links to DoD and Navy Guidance & Resources

https://www.navfac.navy.mil/Divisions/Environmental/Products-and-Services/Environmental-Restoration/PFAS-Reading-Room/

- DoD Interim Guidance on Destruction or Disposal of Materials Containing Per- and Polyfluoroalkyl Substances in the United States, July 2023
- DoD Memorandum for Taking Interim Actions to Address Per- and Polyfluoroalkyl Substances Migration from DoD Installations and National Guard Facilities, July 2023
- DoD Memorandum for Sampling of Per- and Polyfluoroalkyl Substances in DoD-Owned Drinking Water Systems, July 2023

- **DON Environmental Restoration and BRAC (ERB) Website**
  - https://exwc.navfac.navy.mil/go/erb
  - **New! Fact Sheets: ERB Website > Training > Technology Transfer > Fact Sheets**
    - High-Volume Sampling for Vapor Intrusion Assessments
    - Electrokinetic-Enhanced In Situ Remediation
  - **New! Report: ERB Website > Focus Areas > Sediment Sites > Publications**
    - Case Studies Using Surface Weighted Average Concentration Methods at Sediment Remediation Sites, May 2023
- **LinkedIn** https://www.linkedin.com/showcase/navfacerb

For More Information Contact
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PFAS Publications, March 2023 – September 2023

- **Ecological Impacts**
  - Barber, L., Pickard, H. M., Alvarez, D., et al. 2023. Uptake of per- and polyfluoroalkyl substances by fish, mussel, and passive samplers in mobile laboratory exposures using groundwater from a contamination plume at a historical fire training area, Cape Cod, Massachusetts. *Environmental Science and Technology, 57*(14), 5544-5557. doi.org/10.1021/acs.est.2c06500
  - Bradley, P.M., Kolpin, D.W., Thompson, D.A., et al. 2023. Juxtaposition of intense agriculture, vulnerable aquifers, and mixed chemical/microbial exposures in private-well tapwater in northeast Iowa. **Sci. Total Environ**. 868: 161672. http://dx.doi.org/10.1016/j.scitotenv.2023.161672
  - Soucek, D. J., Consbrock, R. A., Pulster, E. L., et al. 2023. Perfluorooctanesulfonate adversely affects a mayfly (Neocloeon triangulifer) at environmentally realistic concentrations. *Environmental Science & Technology Letters, 10*(3), 254-259. doi.org/10.1021/acs.estlett.3c00056
  - Steevens, J. A., Consbrock, R. A., Brunson, E., et al. 2023. Laboratory-derived bioaccumulation kinetic parameters for four per- and polyfluoroalkyl substances in freshwater mussels. *Environmental Toxicology and Chemistry, 42*(6), 1190-1198. doi.org/10.1002/etc.5606
  - Xuan, R., Qiu, X., Wang, J., et al. 2024. Hepatotoxic response of perfluorooctane sulfonamide (PFOSA) in early life stage zebrafish (Danio rerio) is greater than perfluorooctane sulfonate (PFOS). *Journal of Hazardous Materials, 461*. doi.org/10.1016/j.jhazmat.2023.132552

PFAS Publications, March 2023 – September 2023 *continued*

- **Water Quality**
  - Beisner, K. R., Collin, D., & Tillman, F. D. 2023. Anthropogenic influence on groundwater geochemistry in Horn Creek Watershed near the Orphan Mine in Grand Canyon National Park, Arizona, USA. *Geochemistry: Exploration, Environ., Analysis*. doi.org/10.1144/geochem2023-007
  - Breitmeyer, S., Williams, A., Duris, J. W., et al. 2023. Per- and polyfluorinated alkyl substances (PFAS) in Pennsylvania surface waters: A statewide assessment, associated sources, and land-use relations. *Science of the Total Environment, 888*. doi.org/10.1016/j.scitotenv.2023.164161
  - Buszka, P. M., Mailot, B. E., Mathes, N. A. 2023. Per- and polyfluoroalkyl substances in groundwater from the Great Miami buried-valley aquifer, southwestern Ohio. *USGS Scientific Investigations Report* 2023-5017. pubs.er.usgs.gov/publication/sir20235017
  - de Lambert, J., Overbo, A., Robertson, S., Elliott, S. 2023. Data summary report: Unregulated contaminants monitoring project.Minnesota Dept of Health pubs.er.usgs.gov/publication/70241812
  - Fiore, A. R., Imbrigiotta, T. E., Wilson, T. P. 2023. Distribution of chlorinated volatile organic compounds and per- and polyfluoroalkyl substances in groundwater and surface water at the former Naval Air Warfare Center, West Trenton, New Jersey, 2018. *USGS Open-File Report* 2023-1022. pubs.usgs.gov/publication/ofr20231022
  - Gahala, A. M., Sharpe, J. B., Williams, A. M. 2023. Statewide sampling to determine spatial distribution, prevalence, and occurrence of per- and polyfluoroalkyl substances (PFAS) in Illinois community water supplies, 2020–21. *USGS Scientific Investigations Report* 2023-5078. pubs.usgs.gov/publication/sir20235078
  - Smalling, K., Romanok, K. M., Bradley, P. M., et al. (2023). Per- and polyfluoroalkyl substances (PFAS) in United States tapwater: Comparison of underserved private-well and public-supply exposures and associated health implications. *Environment International, 178*.

PFAS Publications, March 2023 – September 2023 *continued*

- **Fate and Transport Processes**
  - Masoner, J.R., Kolpin, D.W., Cozzarelli, I.M., et al. 2023. Contaminant exposure and transport from three potential re-use waters within a single watershed. *Environmental Science and Technology*, 57: 1353-1365. https://doi.org/10.1021/acs.est.2c07372
  - Ruyle, B. J., Schultes, L., Akob, D. M., Harris, C. R., Lorah, M., Vojta, S., Becanova, J., McCann, S., Pickard, H. M., Pearson, A., Lohmann, R., Vecitis, C. D., Sunderland, E. M. 2023. Nitrifying microorganisms linked to biotransformation of perfluoroalkyl sulfonamido precursors from legacy aqueous film forming foams. *Environmental Science and Technology, 14*(57), 5592-5602. doi.org/10.1021/acs.est.2c07178
  - Ruyle, B. J., Thackray, C. P., Butt, C. M., LeBlanc, D. R., et al. 2023. Centurial Persistence of Forever Chemicals at Military Fire Training Sites. *Environmental Science & Technology, 57*(21), 8096-8106. doi.org/10.1021/acs.est.3c00675
- **Scientific Advisory Committees**
  - Smalling, K., Lorah, M., Allen, G., et al. 2023. *Improving understanding and coordination of science activities for PFAS in the Chesapeake watershed*. Scientific and Technical Advisory Committtee, Chesapeake Bay Program. d18lev1ok5leia.cloudfront.net/chesapeakebay/documents/FINAL_STAC-PFAS-Report_2023-05-08-171141_vksb.pdf
  - Report by the Joint Subcommittee on Environment, Innovation, and Public Health, Per- and Polyfluoroalkyl Substances Strategy Team of the National Science and Technology Council, March 2023. Per- and Polyflyuoroalklyl Substances (PFAS) Report (whitehouse.gov)