U.S. ENVIRONMENTAL PROTECTION AGENCY



TechDirect, June 1, 2025

Welcome to TechDirect! Since the May 1 message, TechDirect gained 95 new subscribers for a total of 44,502. If you feel the service is valuable, please share TechDirect with your colleagues. Anyone interested in subscribing may do so on CLU-IN at https://clu-in.org/techdirect. All previous issues of TechDirect are archived there. The TechDirect messages of the past can be searched by keyword or can be viewed as individual issues.

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TechDirect's purpose is to identify new technical, policy and guidance resources related to the assessment and remediation of contaminated soil, sediments and groundwater.

Mention of non-EPA documents or presentations does not constitute a U.S. EPA endorsement of their contents, only an acknowledgment that they exist and may be relevant to the TechDirect audience.

> Announcements

Request for Information (RFI): US EPA Superfund Contract Laboratory Program, Superfund Analytical Methods (SFAM) Procurement. The purpose of this RFI is to gather information from industry in the preparation for an upcoming solicitation for the Superfund Analytical Methods (SFAM02.0) under the Contract Laboratory Program (CLP). The NAICS Code for this requirement is 541380 - Testing Laboratories and Services. Responses are due by 4:30 PM ET on June 5, 2025. For more information and to register to receive updates, see

https://www.fedconnect.net/FedConnect/?doc=68HERH25R0010&agency=EPA.

> Upcoming Live Internet Seminars

ITRC: PFAS Beyond the Basics: PFAS Treatment Technologies Training - Tuesday, June 3, 2025, 1:00PM-3:00PM EDT (17:00-19:00 GMT). This training class builds on the earlier information for treatment technologies presented in the PFAS 101 CLU-IN training. It provides more in-depth information regarding considerations for implementing integrated PFAS treatment technologies and remediation strategies. This training introduces the concept that achieving site remedial objectives will likely necessitate the implementation of multiple treatment technologies and remediation strategies (i.e., an integrated remedial strategy). Specifically, this training uses a hypothetical conceptual site model to frame the discussion of remedial approaches for PFAS impacted source area soil, source area groundwater, and more dilute groundwater plumes. The training concludes with a discussion of select field

implemented and developing disposal and destructive technologies for managing treatment residuals. For more information and to register, see https://www.clu-in.org/live.

RemPlex: Subsurface Sensing: Advancing Electrical Geophysical Techniques for Non-Invasive Characterization and Monitoring at Complex Sites - Tuesday June 3, 2025, 11:00AM-12:30PM EDT (15:00-17:30 GMT). Explore the application of geophysical techniques for understanding, characterizing and monitoring complex remediation sites, with a special focus on the Spectral Induced Polarization (SIP) method. SIP is an exciting emerging geophysical technology that can offer unique non-invasive information on both the physical and geochemical conditions of the subsurface-particularly in environments where contamination and heterogeneous geological conditions pose significant challenges to collecting data at relevant spatial and temporal scales. The seminar will highlight recent advancements in both lab-scale analysis of SIP signals and their field-scale applications. Presented by the Center for the Remediation of Complex Sites (RemPlex). For more information and to register, see https://www.pnnl.gov/remplex-seminars.

ITRC: Microplastics Training - Tuesday, June 10, 2025, 1:00PM-3:00PM EST (17:00-19:00 GMT). In response to one of the biggest emerging environmental concerns, ITRC formed the Microplastics Team in 2021 to develop the Microplastics Guidance Document. Plastics have become pervasive in modern life and are now used in a wide range of commercial and industrial applications. Microplastics may result from the degradation and fragmentation of larger plastics, or they may be intentionally produced for specific applications and products. The online ITRC Guidance Document is geared toward an audience with reasonable level of scientific understanding, but not microplastic-specific knowledge. The guidance provides a user with information on microplastics and the state of the applied science without having to go to the scientific literature. The target audience for the guidance and this training course includes state regulators and environmental consultants, as well as community and tribal stakeholders. For more information and to register, see https://www.clu-in.org/live.

> New Documents and Web Resources

Technology Innovation News Survey Corner. The Technology Innovation News Survey contains market/commercialization information; reports on demonstrations, feasibility studies and research; and other news relevant to the hazardous waste community interested in technology development. Recent issues, complete archives, and subscription information is available at https://clu-in.org/products/tins/. The following resource was included in recent issues:

 Assessing and Mitigating Bias in PFAS Levels During Ground and Surface Water Sampling

NAVFAC Fact Sheet on Assessing Per- and Polyfluoroalkyl Substances (PFAS) Leaching from Soil to Groundwater (March 2025). Understanding the nature and strength of PFAS leaching from soil to groundwater is critical for effective site management. Soil can retain PFAS, potentially resulting in a long-term source of PFAS in groundwater. The unique physicochemical properties of PFAS result in complex fate and transport behavior in the vadose zone, and in some cases may require specialized evaluations to determine how soil to groundwater leaching fits into a particular conceptual site model (CSM). This fact sheet will explain how different PFAS migrate through the vadose zone, how to estimate groundwater recharge rates, and how to estimate PFAS concentrations in porewater. View the fact sheet at

https://www.clu-in.org/NAVFAC-PFAS-Leaching.

Technology Profile - Phytotechnology (EPA/600/R-25/137, May 2025). EPA Office of Land and Emergency Management (OLEM) and the Office Research and Development (ORD) collaborated in the development of the Phytotechnology technology profile, recently published as a major update to the "Phytotechnologies for Site Cleanup" Fact Sheet (EPA 542-F-10-009, September 2010) due to a number of advancements in the science. The technology profile was designed to help contaminated sites technical staff and site managers to understand the mechanisms of phytotechnologies and assess their applicability to remediate or control contaminants in various media. Also included are case study examples and useful information for planning a phytotechnology application (e.g., successful plant-contaminant combinations, operation and maintenance (O&M), and long-term monitoring). View or download the recently published technology profile from

https://cfpub.epa.gov/si/si_public_record_Report.cfm?dirEntryId=366104&Lab=CESER.

Vertical Delineation of Contamination in Aquifers Discussed at Workshop Report (2025). RemPlex collaborated with the United Kingdom's Nuclear Decommissioning Authority (NDA) to host a two-day workshop focused on the challenge of vertical delineation of contamination in aquifers underlying and/or impacted by complex sites. The workshop brought together an international group of researchers, site operators, government agency staff, practitioners, and regulators to identify challenges and potential solutions to enable the design and optimization of targeted remedies and groundwater monitoring programs. View or download the report from https://www.pnnl.gov/projects/remplex/workshops.

Archived Webinar from NEWMOA: Introduction to Downhole Geophysical Investigations - Applications to Contaminated Groundwater Sites. Northeast Waste Management Officials' Association (NEWMOA) hosted this webinar in February 2025. The session explained the types of downhole geophysical methods available and how they can be used to develop and enhance conceptual site models and analyze complex geology. The presentation reviewed geophysical logs and highlight unique geography and identification of geological features. View or replay the archived webinar at https://www.newmoa.org/event/downhole-geophysics-webinar/.

ContaminatedLand.info. With a focus on sustainable and risk-based land management, this platform offers information on best practices, regulatory considerations, and innovative solutions for addressing contamination challenges. To view these resources, visit https://contaminatedland.info/.

> Conferences and Symposia

AquaConSoil 2025, June 16-20, 2025, Liege, Belgium. AquaConSoil 2025 offers a series of technical sessions, with each full conference day beginning with a plenary session featuring expert keynotes and panel discussions tailored to scientific and engineering professionals. Beyond these sessions, participants can enjoy field-specific excursions, advanced courses, and an exhibition with around 30 industry-focused exhibitors. For more information, please visit https://aguaconsoil.com/aguaconsoil2025/

2025 Environmental Measurement Symposium, August 4-8, 2025, St Louis, MO. Organized by The NELAC Institute (TNI), the 2025 Environmental Measurement Symposium is a combined meeting of the National Environmental Monitoring Conference (NEMC) and the Forum on Environmental Accreditation. It is the largest

conference focused on environmental measurements in North America, and this year is planned as an in-person event for the week of August 4, 2025 in St. Louis, MO. This year's Symposium theme is Building a Quality Culture as the Foundation for Reliable Data. For more information, please visit https://www.envirosymposium.group/.

2025 National Brownfields Training Conference, August 5-8, 2025, Chicago, IL. The National Brownfields Training Conference is the largest event in the nation focused on environmental revitalization and economic redevelopment. Held every two years, the National Brownfields Conference attracts over 2,000 stakeholders in brownfields redevelopment and cleanup to share knowledge about sustainable reuse and celebrate the EPA brownfields program's success. For more information, please visit https://gobrownfields.org/.

2025 Tribal Lands and Environment Forum, August 18-21, 2025, Minneapolis, MN and Online. The Tribal Lands and Environment Forum (TLEF) is a joint effort between the Institute for Tribal Environmental Professionals (ITEP), the Tribal Waste and Response Steering Committee (TWAR SC), and US EPA's Office of Land and Emergency Management (OLEM). Topics for presentations should be related to TLEF's primary media: brownfields, underground storage tanks, Superfund sites and federal facilities, waste management and minimization, and emergency response. TLEF will also welcome proposals dealing with emerging contaminants, emerging technologies, habitat restoration, and indigenous justice in waste and response work. For more information, please visit https://sites.google.com/view/tlef2025/home

RemTech Europe 2025, September 15-19, 2025, Ferrara, Italy. RemTech Europe is an international conference on land and water remediation, environmental sustainability, and emerging technologies. The event will take place from September 15 to 19, 2025, with both in person and online participation options. Several short courses will be offered such as

- PFAS Introductory Training (ITRC) https://forms.gle/TC4rxmvkACBQycPx8
- Site Assessment for Vapour Intrusion (ALGA) https://forms.gle/GgeDUP3i2NrzY9hU8
- Pump & Treat Optimization (ITRC) https://forms.gle/mNo41mcmAtuPbRui8
- Safe and efficient reuse of wastewater (DSTC, RIVM) https://forms.gle/5RsZN6ya1n95aqUr8
- Sustainable Materials Reuse (CL:AIRE) https://forms.gle/m1Rw4yT9Po6vbgsk8
- Soil Passports for Demonstrating Circular Economy in Soil Reuse (CL:AIRE) https://forms.gle/1J6ApxEnUrUdiuEE9

For more information, please visit https://remtechexpo.com/remtech-europe/.

Save the Date: Design and Construction Issues at Hazardous Waste Sites (DCHWS West), November 3-5, 2025, Denver, CO. The US EPA and Society of American Military Engineers (SAME) co-sponsor the DCHWS West which will be held in Denver, Colorado. The applications of engineering and science associated with cleaning up hazardous waste sites continue to evolve rapidly. The event's primary goal is to facilitate an interactive engagement between professionals from government and the private sector related to relevant and topical issues. For more information, please visit https://dchws.org

Call for Abstracts for Global Summit on Environmental Remediation, November

4-6, 2025, Richland, WA. The Call for Abstracts is open for this conference organized by the Center for the Remediation of Complex Sites (RemPlex) in cooperation with the International Atomic Energy Agency's ENVIRONET. The Global Summit will be held in person at Pacific Northwest National Laboratory in Richland, WA, with a virtual option. Remediation topics include resilience planning, characterization and monitoring, artificial intelligence, sustainability and circularity, data management, autonomous measurements, achieving end states, and more. Abstracts for presentations and posters are due June 6, 2025. For more information, please visit https://www.pnnl.gov/projects/remplex/2025-summit

NOTE: For TechDirect, we prefer to concentrate mainly on new documents and the Internet live events. However, we do support an area on CLU-IN where announcement of conferences and courses can be regularly posted. We invite sponsors to input information on their events at https://clu-in.org/courses. Likewise, readers may visit this area for news of upcoming events that might be of interest. It allows users to search events by location, topic, time period, etc.

If you have any questions regarding TechDirect, contact Jean Balent at (202) 566-0832 or balent.iean@epa.gov.

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