



TechDirect, June 1, 2018

Welcome to TechDirect! Since the May 1 message, TechDirect gained 77 new subscribers for a total of 39,269. 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.



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.

> Request for Application

National Priorities: Per-and Polyfluoroalkyl Substances. EPA is seeking applications that generate new information for nationally assessing per-and polyfluoroalkyl substance (PFAS) fate and transport, exposure, and toxicity. PFASs are manmade chemicals designed to resist heat, water, and oil. Used in a variety of consumer products and industrial applications, PFASs are moderately to highly water soluble, persistent, bio accumulative, and toxic. This RFA will inform new strategies that protect public health and the environment from PFAS exposure and adverse outcomes. The EPA anticipates funding approximately two awards under this RFA for a total of \$1,984,400. The total project period requested in an application submitted for this RFA may not exceed three years. The due date for applications is June 18, 2018 at 11:59:59pm ET. For information and application instructions, see

<https://www.epa.gov/research-grants/national-priorities-and-polyfluoroalkyl-substances>.

> Upcoming Live Internet Seminars

2018 BUILD Act & the EPA Brownfields Program - June 6, 2018, 3:00PM-5:00PM EDT (19:00-21:00 GMT). The Brownfields Utilization, Investment, and Local Development Act (BUILD Act) was enacted as part of the FY18 Omnibus Appropriations Act. The BUILD Act amends the 2002 Brownfields Law and authorizes changes to EPA's Brownfields program. Members from EPA's Brownfields and Land Revitalization Program will provide an overview of how the BUILD Act changes some aspects of EPA's brownfields grants, ownership and liability requirements, and State & Tribal Response Programs. For more information and to register, see <https://clu-in.org/live>.

Military Munitions Support Services - The Application of Innovative Technologies to MMRP Projects - June 14, 2018, 1:00 PM-5:00 PM EDT (17:00-21:00 GMT).

This session will include a series of presentations on the application of innovative technologies to Military Munitions Response Program (MMRP) projects including: Robotics for Vegetation Clearance, Rapid Chemical Destruction of Bulk and Residual Energetics and Smart Characterization - An HRSC Approach for Determining Preferential Pathways for Complex Sites. For more information and to register, see

<https://clu-in.org/live>.

ITRC Geospatial Analysis for Optimization at Environmental Sites - June 19, 2018, 1:00PM-3:15PM EDT (17:00-19:15 GMT).

The purpose of ITRC's Geospatial Analysis for Optimization at Environmental Sites (GRO-1) guidance document and this associated training is to explain, educate, and train state regulators and other practitioners in understanding and using geospatial analyses to evaluate optimization opportunities at environmental sites. With the ITRC GRO-1 web-based guidance document and this associated training class, project managers will be able to: evaluate available data and site needs to determine if geospatial analyses are appropriate for a given site; for a project and specific life-cycle stage, identify optimization questions where geospatial methods can contribute to better decision making; for a project and optimization question(s), select appropriate geospatial method(s) and software using the geospatial analysis work flow, tables and flow charts in the guidance document; with geospatial analyses results (note: some geospatial analyses may be performed by the project manager, but many geospatial analyses will be performed by technical experts), explain what the results mean and appropriately apply in decision making; and use the project manager's tool box, interactive flow charts for choosing geospatial methods and review checklist to use geospatial analyses confidently in decision making. For more information and to register, see <http://www.itrcweb.org> or <https://clu-in.org/live>.

In Situ Activated Carbon-Based Technology for Groundwater Remediation: Overview, Best Practices, and Case Studies - June 25, 2018, 1:00PM-2:30PM EDT (17:00-18:30 GMT).

In this webinar, we will present an overview of in situ activated carbon (AC)-based remediation technology, discuss important considerations for site characterization and treatment design, and present characterizations of physical, chemical and biological processes involved in a long-term case study where reactive AC-based technology was applied. For more information and to register, see

<https://clu-in.org/live>.

Practical Applications of Phytotechnologies at Contaminated Sites - Jun 28, 2018, 11:00AM-12:30PM EDT (15:00-16:30 GMT).

Phytoremediation is the practice of using plants to mitigate environmental contamination and reduce exposure of humans and ecological receptors to that contamination. This webinar will introduce participants to the science of phytotechnology in the context of contaminated site remediation. Technical experts will discuss the practical aspects of phytoremediation and explore opportunities where the use of plants could be integrated as part of a remedial approach. The webinar will discuss the considerations and future of phytotechnology at contaminated sites and share additional resources. Participants will have a better understanding for evaluating phytoremediation as a remedial approach for contaminated sites. For more information and to register, see <https://clu-in.org/live>.

Perspectives on the Implementation of Greener Cleanups - June 28, 2018, 2:00PM-3:30PM EDT (18:00-19:30 GMT).

The practice of implementing greener cleanups to secure protective remedies with a lower environmental footprint continues to mature and expand, with greater levels of experience among regulators, site owners, and cleanup professionals alike. Through this webinar we will hear first-hand from individuals in all three sectors on their experiences with actual sites where greener cleanups have been implemented. Three of the projects applied the ASTM Standard

Guide for Greener Cleanups (E2893), and represent three major federal agencies involved in site cleanups. We will also learn how greener cleanups are implemented by a corporation owning a portfolio of sites requiring remediation work. For more information and to register, see <https://clu-in.org/live>.

EPA's Office of Site Remediation Enforcement (OSRE) Listening Sessions for Superfund Task Force Recommendations - June 5 through June 8, 2018. EPA's Office of Site Remediation Enforcement (OSRE) within the Office of Enforcement and Compliance Assurance is hosting a series of listening sessions to provide a forum for EPA personnel to obtain stakeholder input on specific Superfund Task Force recommendations in an effort to increase public participation and transparency, and strengthen communication with stakeholders. For more information and to register, see <https://www.epa.gov/enforcement/listening-sessions-superfund-task-force-recommendations>.

Highlight from the CLU-IN Seminar Archives. Each edition of TechDirect highlights a previously recorded internet seminar from our archives that may be of interest to our readers. We welcome your feedback on this addition to TechDirect.

ITRC Geospatial Analysis for Optimization at Environmental Sites, Interstate Technology and Regulatory Council, Archive of Jan 30, 2018 Seminar (2 Hours, 15 Minutes). Optimization activities can improve performance, increase monitoring efficiency, and support contaminated site decisions. Project managers can use geospatial analysis for evaluation of optimization opportunities. Unlike traditional statistical analysis, geospatial methods incorporate the spatial and temporal dependence between nearby data points, which is an important feature of almost all data collected as part of an environmental investigation. The results of geospatial analyses add additional lines of evidence to decision making in optimization opportunities in environmental sites across all project life cycle stages (release detection, site characterization, remediation, monitoring and closure) in soil, groundwater or sediment remediation projects for different sizes and types of sites. The purpose of ITRC's Geospatial Analysis for Optimization at Environmental Sites (GRO-1) guidance document and this associated training is to explain, educate, and train state regulators and other practitioners in understanding and using geospatial analyses to evaluate optimization opportunities at environmental sites. For more information or to replay, visit https://clu-in.org/conf/itrc/ContSedRem_010918/.

> New Documents and Web Resources

Examples of Groundwater Remediation at NPL Sites (EPA 542-R-18-002). This report highlights a select number of example National Priorities List (NPL) sites where EPA has used innovative and established technologies to restore groundwater for use as a source of drinking water. In these examples groundwater was successfully restored for drinking water use at 17 NPL sites and significant progress toward groundwater restoration was made at an additional 13 NPL sites where contaminants remain above safe drinking water levels. These sites demonstrate how the Superfund program can overcome challenges related to difficult contaminants of concern and complex hydrogeologic settings (May 2018, 114 pages). View or download at <https://www.epa.gov/remedytech/examples-groundwater-remediation-npl-sites>.

All Hazards Waste Management Planning (WMP) Tool. EPA recommends that communities have a WMP that addresses the management of waste generated by all hazards, particularly from homeland security incidents ranging from natural disasters and animal disease outbreaks to chemical spills and nuclear incidents to terrorist

attacks involving conventional, chemical, radiological, or biological agents. This tool is intended to assist emergency managers and planners in the public and private sectors in creating or updating a comprehensive plan for managing waste generated from manmade and natural disasters. The tool walks the user through the process of developing and implementing a plan. The tool also contains many resources that can be used as aids to various aspects of the planning process. View and use at <https://wasteplan.epa.gov>.

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 resources were included in recent issues:

- Geophysical Pilot Test Technical Memorandum: NERT Remedial Investigation -- Downgradient Study Area, Nevada Environmental Response Trust Site, Henderson, Nevada
- Extending the Applicability of Compound-Specific Isotope Analysis to Low Concentrations of 1,4-Dioxane
- Adsorption-Based Treatment Systems for Removing Chemical Vapors from Indoor Air
- Post-Closure Performance of Liner Systems at RCRA Subtitle C Landfills
- Huling Branch AML Reclamation/ATV Recreation and Watershed Improvement Project
- Update: Phosphate Mine Site Investigations and Cleanup in Southeast Idaho: Southeast Idaho Selenium Project
- Strategies for Rehabilitating Mercury-Contaminated Mining Lands in Colombia for Renewable Energy and Other Sustainable Re-Use
- Giant Mine State of Knowledge Review: Arsenic Dust Management Strategies
- ARC Centre for Mine Site Restoration
- Practitioner Restoration Manual

Updates to Vapor Intrusion Screening Level Calculator. The U.S. EPA Vapor Intrusion Screening Level (VISL) calculator identifies chemicals that are considered to be sufficiently volatile and toxic to warrant an investigation of the soil gas intrusion pathway when they are present as subsurface contaminants. The toxicity values and physiochemical parameters were updated in May 2018. For more information, <https://www.epa.gov/vaporintrusion/vapor-intrusion-screening-level-calculator> .

EUGRIS Corner. New Documents on EUGRIS, the platform for European contaminated soil and water information. More than 21 resources, events, projects and news items were added to EUGRIS in May 2018. These can be viewed at <http://www.eugris.info/whatsnew.asp> . Then select the appropriate month and year for the updates in which you are interested.

> Conferences and Symposia

Call for Abstracts! 3rd Western Symposium Design and Construction Issues at Hazardous Waste Sites, Denver, CO, November 5-7, 2018. The past success of the conferences have been directly related to excellent presentations with interesting topics and top-notch professionals. We encourage you to submit an abstract this year on a successful project or thought-provoking topics. Abstracts are due on June 15, 2018. For more information and to complete the abstract submission form, see

<https://clu-in.org/download/misc/WesternDCHWS-2018-Abstract-Submission-Form.pdf>.

Basic Environmental Geophysics (BEG), Lenexa, KS, July 11-12, 2018 and Edison, NJ, July 18-19, 2018. This 2-day course provides individuals who have little or no geophysical exploration experience with practical information on the strengths and limitations of the most used geophysical techniques on hazardous waste sites. It is intended to enable students to select the appropriate methods and to effectively supervise geophysical surveys during hazardous waste site investigations. The course emphasizes three geophysical methods -- magnetics, electromagnetics, and ground-penetrating radar -- most commonly employed for site characterization and waste location throughout the U.S. The course also introduces other methods -- seismic refraction, gravity, resistivity, and borehole geophysics -- that may be effective depending on regional or site-specific conditions, and for all methods provides examples of situations where they may be applicable. It is intended for personnel responsible for inspections, site characterization, site investigations, and removal and remedial actions at Superfund sites. For more information and to register, see <https://trainex.org/offeringlist.cfm?courseid=1760>.

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 (703) 603-9924 or balent.jean@epa.gov. Remember, you may subscribe, unsubscribe or change your subscription address at <https://clu-in.org/techdirect> at any time night or day.

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