



U.S. ENVIRONMENTAL PROTECTION AGENCY

## TechDirect, November 1, 2010

Welcome to TechDirect! Since the October 1 message, TechDirect gained 261 new subscribers for a total of 36,419. If you feel the service is valuable, please share TechDirect with your colleagues. Anyone interested in subscribing may do so on CLU-IN at <http://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 ground water.

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.

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### > Open Solicitation

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**SERDP Core and SEED Solicitations.** The Department of Defense Strategic Environmental Research and Demonstration Program (SERDP) released its annual Core and SERDP Exploratory Development (SEED) solicitations on October 28, 2010. Funds are available through a competitive process to both federal and private organizations to perform basic and applied research and advanced technology development. Core Solicitation projects vary in cost and duration, consistent with the scope of the work proposed. For the Core solicitation, pre-proposals from the non-federal sector are due January 6, 2011. Federal proposals are due March 10, 2011. The SEED Solicitation is designed for work that will investigate innovative environmental approaches that entail high technical risk or require supporting data to provide proof of concept. SEED proposals are limited to not more than \$150,000 and approximately one year in duration. All SEED proposals are due March 10, 2011. View the call for proposals and Statements of Need at <http://www.serdp-estcp.org/Funding-Opportunities/SERDP-Solicitations>.

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### > Upcoming Live Internet Seminars

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**ITRC Quality Considerations for Munitions Response Projects - November 4, 2010, 11:00AM-1:15PM EDT (15:00-17:15 GMT).** This training introduces state regulators, environmental consultants, site owners, and community stakeholders to Quality Considerations for Munitions Response Projects (UXO-5, 2008), created by the ITRC's Unexploded Ordnance (UXO) Team. In this document, quality is defined as

"conformance to requirements." To manage quality, the quality requirements of the project must first be understood. Requirements must be precisely stated and clearly understood by everyone involved. A plan is then put in place to meet those requirements. The UXO Team emphasizes taking a whole-system approach to designing, planning and managing a munitions response (MR) project to optimize quality. This training course is intended for an intermediate audience and assumes a basic understanding of specialized processes associated with MR projects. For more information and to register, see <http://www.itrcweb.org> or <http://clu-in.org/live> .

**ITRC In Situ Bioremediation of Chlorinated Ethene - DNAPL Source Zones - November 9, 2010, 2:00PM-4:15PM EST (19:00-21:15 GMT).** Treatment of dissolved-phase chlorinated ethenes in groundwater using in situ bioremediation (ISB) is an established technology; however, its use for DNAPL source zones is an emerging application. This training course supports the ITRC Technical and Regulatory Guidance document In Situ Bioremediation of Chlorinated Ethene: DNAPL Source Zones (BioDNAPL-3, 2008). This document provides the regulatory community, stakeholders, and practitioners with the general steps practitioners and regulators can use to objectively assess, design, monitor, and optimize ISB treatment of DNAPL source zones. For more information and to register, see <http://www.itrcweb.org> or <http://clu-in.org/live> .

**ITRC Phytotechnologies - November 16, 2010, 2:00PM-4:15PM EST (19:00-21:15 GMT).** This training familiarizes participants with ITRC's Phytotechnology Technical and Regulatory Guidance and Decision Trees, Revised (Phyto-3, 2009). This document provides guidance for regulators who evaluate and make informed decisions on phytotechnology work plans and practitioners who have to evaluate any number of remedial alternatives at a given site. This document updates and replaces Phytoremediation Decision Tree (Phyto-1, 1999) and Phytotechnology Technical and Regulatory Guidance Document (Phyto-2, 2001). It has merged the concepts of both documents into a single document. This guidance includes new, and more importantly, practical information on the process and protocol for selecting and applying various phytotechnologies as remedial alternatives. For more information and to register, see <http://www.itrcweb.org> or <http://clu-in.org/live> .

**Contaminated Sediments: New Tools and Approaches for in-situ Remediation - Session I - November 17, 2010, 2:00PM-4:00PM EST (19:00-21:00 GMT).** This seminar will feature SRP grantees Dr. Peggy O'Day (University of California - Merced) and Dr. Tom Sheahan (Northeastern University), and will be moderated by Karl Gustavson (US EPA). Dr. O'Day will present an overview of different types of reactive amendments, mechanisms and chemistry associated with contaminant sequestration, examples of recent applications, and opportunities for the use of new materials and delivery methods. Dr. Sheahan will describe a bench-scale experimental study to examine the efficacy of the reactive geocomposite mats or overlays (RCM) to isolate and partially remediate PCB- and PAH-contaminated sediment, and to provide sufficient sequestering functionality to minimize biouptake by organisms in clean sediment overlying the RCM. He will present the results from a series of tests on spiked natural sediment using a new device developed for this research, the Integrated Contaminated Sediment Testing Apparatus Column (ICSTAC). For more information and to register, see <http://clu-in.org/live> .

**ITRC Use and Measurement of Mass Flux and Mass Discharge - November 18, 2010, 11:00AM-1:15PM EST (16:00-18:15 GMT).** The ITRC technology overview, Use and Measurement of Mass Flux and Mass Discharge (MASSFLUX-1, 2010), and associated Internet-based training provide a description of the underlying concepts, potential applications, description of methods for measuring and calculating, and case studies of the uses of mass flux and mass discharge. This Technology Overview, and associated internet based training are intended to foster the appropriate understanding

and application of mass flux and mass discharge estimates, and provide examples of use and analysis. The document and training assumes the participant has a general understanding of hydrogeology, the movement of chemicals in porous media, remediation technologies, and the overall remedial process. For more information and to register, see <http://www.itrcweb.org> or <http://clu-in.org/live> .

**Enhanced Attenuation of Chlorinated Organics: A Site Management Tool - December 2, 2010, 11:00AM-1:15PM EST (16:00-18:15 GMT).** This training on the ITRC Technical and Regulatory Guidance for Enhanced Attenuation: Chlorinated Organics (EACO-1, 2008) describes the transition (the bridge) between aggressive remedial actions and MNA and vice versa. Enhanced attenuation (EA) is the application of technologies that minimize energy input and are sustainable in order to reduce contaminant loading and/or increase the attenuation capacity of a contaminated plume to progress sites towards established remedial objectives. Contaminant loading and attenuation capacity are fundamental to sound decisions for remediation of groundwater contamination. This training explains how a decision framework which, when followed, allows for a smooth transition between more aggressive remedial technologies to sustainable remedial alternatives and eventually to Monitored Natural Attenuation. This training will demonstrate how this decision framework allows regulators and practitioners to integrate Enhanced Attenuation into the remedial decision process. For more information and to register, see <http://www.itrcweb.org> or <http://clu-in.org/live> .

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## > New Documents and Web Resources

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**Phytotechnologies for Site Cleanup (EPA 542-F-10-009).** Phytotechnologies are a set of techniques that make use of plants to achieve environmental goals. These techniques use plants to extract, degrade, contain, or immobilize pollutants in soil, groundwater, surface water, and other contaminated media. This fact sheet provides information that will help you evaluate whether phytotechnologies will work at your site, summarizes the applications of phytotechnologies for various contaminants, and includes links to additional sources of information (September 2010, 12 pages). View or download at <http://clu-in.org/techpubs.htm> .

**Reference Guide to Non-combustion Technologies for Remediation of Persistent Organic Pollutants in Soil, Second Edition - 2010 (EPA 542-R-09-007).** This report is the second edition of the U.S. Environmental Protection Agency's (US EPA's) 2005 report and provides a high level summary of information on the applicability of existing and emerging noncombustion technologies for the remediation of persistent organic pollutants (POPs) in soil. Since the publication of this report in 2005, nine (9) additional chemicals have been listed in the Stockholm Convention; this brings the total number of chemicals currently listed as POPs under the Stockholm Convention to twenty-one (21). In addition, three (3) POPs are currently under consideration (September 2010, 103 pages). View or download at <http://clu-in.org/techpubs.htm> .

**RE-Powering America's Land Initiative Management Plan.** As part of the U.S. EPA's RE-Powering America's Land initiative, the agency has developed a two-year draft management plan to advance the development of renewable energy on potentially contaminated land and mining sites. The draft plan describes activities EPA can take to build upon the progress that the initiative has achieved since its launch in September of 2008. EPA started the initiative to determine the feasibility of developing renewable energy production on Superfund, brownfields, and former landfill or mining sites. The initiative aims to decrease the amount of green space used for development, reduce greenhouse gas emissions, and provide health and economic benefits to local

communities, including job creation. View and submit comments through November 30, 2010 at <http://www.epa.gov/renewableenergyland/> .

**SMARTe 2011 is now available.** The most recent version of SMARTe provides updated links, resources and information related to all aspects of the land revitalization process including planning future use while considering environmental issues, economic viability, and socio-cultural needs. For example, the newly updated Liability Section of SMARTe provides an overview of liability risk (when a site is/was contaminated) and how to reduce those risks. Additionally, a new sub-section under Future Land Use/Sustainable Practices provides information and considerations for re-using a site as an urban garden. SMARTe is widely accessed by users in over 90 different countries. View SMARTe online at [www.smarte.org](http://www.smarte.org) .

**EUGRIS Corner.** New Documents on EUGRIS, the platform for European contaminated soil and water information. More than 18 resources, events, projects and news items were added to EUGRIS in October 1-24, 2010. 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. The following resource was posted on EUGRIS:

**TRITECH ETV (Environmental Technologies Verification) Program Summary.** This was a pilot project to develop an EU wide scheme for validating the performance of environmental technologies, and was funded by the European Union's Life Environment Programme. The TRITECH project concentrates on three technology areas; soil remediation, waste water and energy related technologies. View or download project reports at <http://www.lifetv.com/downloads.htm> .

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## > Conferences and Symposia

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**Registration Now Open!! Partners in Environmental Technology Technical Symposium & Workshop, Washington, DC, November 30-December 2, 2010.** This event is sponsored by the Strategic Environmental Research and Development Program (SERDP), Department of Defense's (DoD's) environmental science and technology program, and the Environmental Security Technology Certification Program (ESTCP), DoD's environmental technology demonstration and validation program. This comprehensive technical symposium and workshop will feature 14 technical sessions and three short courses. Technical sessions will highlight research and innovative technologies that assist the DoD in addressing increasingly complex environmental and mission sustainability challenges. Over the course of the event, short courses will provide training opportunities on select technologies and methods in environmental restoration and munitions response. For more information and to register, see <http://www.serdp-estcp.org/symposium2010/> .

**Vapor Intrusion Pathway: A Practical Guideline ITRC 2-day Classroom Training, San Antonio, TX, January 20-21, 2011.** Led by internationally recognized experts, this 2-day ITRC classroom training will enable you to learn the latest strategies to conduct site screening and investigations; determine what tools are appropriate to collect quality data and evaluate the results; apply multiple lines of evidence to ensure quality decision-making; build solutions for VI issues through understanding of mitigation options; and network with environmental professionals dealing with this interdisciplinary and complex pathway. Interactive learning with hands-on exhibits, classroom exercises, and frequent Q&A sessions will reinforce these course objectives and contribute to a practical understanding of this difficult pathway. For more information and to register, see <http://www.itrcweb.org/crt.asp> .

**Registration Now Open!! Brownfields 2011, Philadelphia, PA, April 3-5, 2011.** The National Brownfields Conference is the largest, most comprehensive conference focused on cleaning up and redeveloping abandoned, underutilized, and potentially contaminated properties in the nation. In addition to an outstanding educational program, the conference has plentiful networking and business development opportunities including the Economic Redevelopment Forum and the Brownfields 2011 Exhibit Hall. For more information and to register, see <http://www.brownfields2011.org> .

**Call for Abstracts!! Sixth Annual Conference on Design and Construction Issues at Hazardous Waste Sites, Philadelphia, PA, April 13-15, 2011.** The conference, hosted by the U.S. EPA and the U.S. Army Corps of Engineers, will facilitate information exchange among professionals from the private and public sectors regarding design and construction issues at hazardous waste sites including effective methods, remediation strategies, lessons learned, and application of technologies. Abstracts are due by November 12, 2010. For more information and to submit an abstract, see <https://superfund.usace.army.mil/2011DCHWS> .

**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. Currently there are 48 conferences and courses featured. We invite sponsors to input information on their events at <http://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 Jeff Heimerman at (703) 603-7191 or [heimerman.jeff@epa.gov](mailto:heimerman.jeff@epa.gov). To unsubscribe, send a blank email to [\\$subst\('Email.UnSub'\)](mailto:$subst('Email.UnSub')). Remember, you may subscribe, unsubscribe or change your subscription address at <http://clu-in.org/techdirect> at any time night or day.

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