



TechDirect, February 1, 2017

Welcome to TechDirect!



This has been the tagline on TechDirect for the last 20 years. With this issue, TechDirect begins its 21st year of distribution. Looking back, it has mentioned 1,841 documents and online resources. It has also identified 114 funding opportunities. TechDirect began in February 1997 and shortly after, CLU-IN began broadcasting live internet seminars to international audiences. Today, of the over 1,500 webcasts hosted on CLU-IN, 653 have been archived with full audio. We started with roughly 1,200 conscripts and now TechDirect is sent to more than 38,000 individuals every month. We strive to provide relevant information in every issue.



I have had the great pleasure of authoring TechDirect since I conceived it in 1997. It is a simple concept; find new and relevant technical documents, seminars and webcasts and share them broadly across the cleanup community. I have had plenty of help pulling together each monthly issue for the last 10 plus years. Last year, I changed positions in EPA and the time has come to pass the baton. Jean Balent has agreed to formally author TechDirect. Future editions will arrive in your inbox under her name and email address (balent.jean@epa.gov).

Since the January 1 message, TechDirect gained 416 new subscribers for a total of 38,525. 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.

> Open Solicitation

FY 2018 ESTCP Solicitation Released. The Department of Defense's (DoD) Environmental Security Technology Certification Program (ESTCP) released a solicitation on January 5, 2017, requesting proposals for demonstrations of environmental technologies. Researchers from Federal organizations, universities, and private industry can apply for ESTCP funding via the appropriate solicitation. All proposals must respond to a Topic Area associated with the solicitation. Topic Areas for universities, private industry, and Federal organizations outside DoD differ from DoD Topic Areas. ESTCP projects are formal demonstrations in which innovative

technologies are rigorously evaluated. ESTCP demonstrations are conducted at DoD facilities and sites to document improved efficiency, reduced liability, improved environmental outcomes, and cost savings. The due date for all pre-proposals is March 9, 2017 by 2:00 p.m. ET. For details for both federal and non-federal submissions, see <https://serdp-estcp.org/Funding-Opportunities/ESTCP-Solicitations/Environmental-Technologies-Solicitation>.

> Upcoming Live Internet Seminars

ITRC Geospatial Analysis for Optimization at Environmental Sites - February 7, 2017, 1:00PM-3:15PM EST (18:00-20:15 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 lifecycle 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 <http://clu-in.org/live>.

SERDP & ESTCP Webinar Series, February 9, 2017. The upcoming SERDP & ESTCP webinars will feature award-winning Department of Defense (DoD) research efforts. One webinar on February 9 will feature a talk about decision support tools for munitions response performance prediction and risk assessment. For more information and to register for these free webinars, please visit <https://www.serd-estcp.org/Tools-and-Training/Webinar-Series>.

ITRC Long-term Contaminant Management Using Institutional Controls - February 9, 2017, 1:00PM-3:15PM EST (18:00-20:15 GMT). ITRC's Long-term Contaminant Management Using Institutional Controls (IC-1, 2016) guidance and this associated training class focuses on post-implementation IC management, including monitoring, evaluation, stakeholder communications, enforcement, and termination. The ITRC guidance and training will assist those who are responsible for the management and stewardship of ICs. ITRC has developed a downloadable tool that steps users through the process of planning and designing IC management needs. This tool can help to create a long lasting record of the site that includes the regulatory authority, details of the IC, the responsibilities of all parties, a schedule for monitoring the performance of the IC, and more. The tool generates an editable Long Term Stewardship (LTS) plan in Microsoft Word. After attending the training, participants will be able to: describe best practices and evolving trends for IC management at individual sites and across state agency programs; use this guidance to improve IC reliability and prevent IC failures, improve existing, or develop new, IC Management programs, and identify the pros and cons about differing IC management approaches; use the tools to establish an LTS plan for specific sites; and use the elements in the tools to understand the information that should populate an IC registry or data management system. For more information and to register, see <http://www.itrcweb.org> or <http://clu-in.org/live>.

ITRC Remedy Selection for Contaminated Sediments - February 14, 2017, 1:00PM-3:15PM EST (18:00-20:15 GMT). ITRC developed the technical and regulatory guidance, Remedy Selection for Contaminated Sediments (CS-2, 2014), to assist decision-makers in identifying which contaminated sediment management technology is most favorable based on an evaluation of site specific physical, sediment, contaminant, and land and waterway use characteristics. The document provides a remedial selection framework to help identify favorable technologies, and identifies additional factors (feasibility, cost, stakeholder concerns, and others) that need to be considered as part of the remedy selection process. This ITRC training course supports participants with applying the technical and regulatory guidance as a tool to overcome the remedial challenges posed by contaminated sediment sites. Participants learn how to: identify site-specific characteristics and data needed for site decision making, evaluate potential technologies based on site information, and select the most favorable contaminant management technology for their site. For more information and to register, see <http://www.itrcweb.org> or <http://clu-in.org/live>.

ITRC Issues and Options in Human Health Risk Assessment - A Resource When Alternatives to Default Parameters and Scenarios are Proposed - February 21, 2017, 1:00PM-3:15PM EST (18:00-20:15 GMT). After participating in this ITRC training course, the learner will be able to apply ITRC's Decision Making at Contaminated Sites: Issues and Options in Human Health Risk (RISK-3, 2015) document when developing or reviewing site-specific risk assessments by: identifying common issues encountered when alternatives to default parameters and scenarios are proposed during the planning, data evaluation, toxicity, exposure assessment, and risk characterization and providing possible options for addressing these issues; recognizing the value of proper planning and the role of stakeholders in the development and review of risk assessments; and providing information (that includes links to additional resources and tools) to support decision making when alternatives to default approaches, scenarios and parameters are proposed. For more information and to register, see <http://www.itrcweb.org> or <http://clu-in.org/live>.

Leveraging Resources for Brownfields Revitalization: Meet the Funders: Parks, Community Health, and the Arts - February 28, 2017, 1:00PM-2:30PM (18:00-19:30 GMT). Brownfield grants from the U.S. EPA are one of many sources of funds that can support redevelopment of contaminated sites. This webinar will highlight a number of redevelopment resources available from the National Park Service (NPS), The Department of Health and Human Services (HHS), and the National Endowment for the Arts (NEA) to leverage your brownfield dollars. The webinar will also feature a presentation from a community that has successfully used grants, loans and other support from these agencies for its revitalization efforts. It is the fourth in OBLR's webinar series on what communities need to know to successfully leverage resources for brownfields revitalization. For more information and to register, see <http://clu-in.org/live>.

ITRC Integrated DNAPL Site Characterization - March 2, 2017, 1:00PM-3:15PM EST (18:00-20:15 GMT). The Integrated DNAPL Site Characterization Team has synthesized the knowledge about dense nonaqueous phase liquid (DNAPL) site characterization and remediation acquired over the past several decades, and has integrated that information into a new document, Integrated DNAPL Site Characterization and Tools Selection (ISC-1, 2015). This guidance is a resource to inform regulators, responsible parties, other problem holders, consultants, community stakeholders, and other interested parties of the critical concepts related to characterization approaches and tools for collecting subsurface data at DNAPL sites. After this associated training, participants will be able to use the guidance to develop and support an integrated approach to DNAPL site characterization, including: identify what site conditions must be considered when developing an informative DNAPL conceptual site model (CSM); define an objectives-based DNAPL characterization

strategy; understand what tools and resources are available to improve the identification, collection, and evaluation of appropriate site characterization data; and navigate the DNAPL characterization tools table and select appropriate technologies to fill site-specific data gaps. For more information and to register, see <http://www.itrcweb.org> or <http://clu-in.org/live>.

> New Documents and Web Resources

Best Practices for Environmental Site Management: Recommended Contents of a Groundwater Monitoring Report (EPA 542-F-16-005). The purpose of this issue paper is to recommend information to include in groundwater monitoring reports that will lead to improved report consistency and a useful, readable format. Incorporation of the recommended information will standardize groundwater monitoring report deliverables, which may in turn inform site characterization strategies, analysis of remedial alternatives, monitoring network optimization, remedy performance evaluation, continual refinement of the conceptual site model (CSM), and technical evaluation of groundwater data in five-year reviews (September 2016, 10 pages). View or download at <https://semspub.epa.gov/src/document/11/500024623>.

Travis Environmental Restoration Program Gets Greener Cleanup Certification. Travis Air Force Base (AFB) was added to the National Priorities List in 1989 because of contaminated landfills, disposal and spill sites, firefighting training and storage tank areas and 23 contaminated groundwater sites. Since 2008, the Travis AFB environmental restoration program has pursued a green and sustainable (GSR) approach to addressing the contamination. This effort includes use of the ASTM Standard Guide for Greener Cleanups (E2893) as a means to demonstrate efficiencies of innovative cleanup technologies intended to minimize energy consumption and waste generation while reducing costs. Travis AFB is now the first U.S. Department of Defense installation to certify use of the ASTM standard for these purposes. Analysis of footprints associated with remediating the contaminated groundwater indicates that the GSR approach helped reduce greenhouse gas emissions by about 1.8 million pounds each year and is saving the Air Force approximately \$37,000 in electricity costs annually. For more information about the GSR approach at Travis AFB, see <http://www.militaryspot.com/news/travis-environmental-restoration-program-gets-greener-cleanup-certification>. For more information about the ASTM standard, see <https://www.epa.gov/greenercleanups/greener-cleanup-consensus-standard-initiative>.

Superfund Research Program (SRP) Research Briefs. To get monthly updates on research advances from the SRP you can subscribe to their Research Brief mailing list at <https://list.nih.gov/cgi-bin/wa.exe?SUBED1=SRP-BRIEF&A=1>.

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:

- In-Situ Capping of Contaminated Sediments
- Long-Term Contaminant Management Using Institutional Controls
- Geospatial Analysis for Optimization at Environmental Sites
- NORDROCS 2016: The 6th Joint Nordic Meeting on Remediation of Contaminated Sites -- Short Papers and Abstracts

- IP 2016: 4th International Workshop on Induced Polarization -- Abstracts
- Guidance on Assessing the Impacts of Cemeteries on Groundwater

EUGRIS Corner. New Documents on EUGRIS, the platform for European contaminated soil and water information. More than 8 resources, events, projects and news items were added to EUGRIS in January 2017. 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:

> Conferences and Symposia

Groundwater High-Resolution Site Characterization (HRSC), Dallas, TX, February 22-23, 2016. This training course focuses on groundwater characterization and discusses (1) the impacts of subsurface heterogeneity on the investigation and cleanup of groundwater and related media, (2) the need for scale-appropriate measurements and adequate data density, and (3) the tools and strategies that are available to overcome the impacts of subsurface heterogeneity. After taking this course, participants will be armed with information that will allow them to improve their subsurface investigation approaches and develop more realistic and comprehensive conceptual site models (CSM). CSMs developed based on HRSC strategies and tools will decrease site uncertainty, improve the remedy selection process for groundwater remedies, and better enable the evaluation, design, and implementation of targeted in situ and ex situ groundwater remedies. The Groundwater HRSC course is an advanced 2-day course. The recommended audience includes EPA, federal, state, tribal and private industry technical project managers, practitioners and other stakeholders involved in groundwater investigation and remediation. For more information and to register, see <https://trainex.org/hrsc>.

Call for Ideas! 2017 National Brownfields Training Conference, Pittsburgh, PA, December 5-7, 2017. Submit your ideas for dynamic educational sessions that encourage conversation and participation from attendees. The Brownfields 2017 educational program will motivate brownfields stakeholders to engage, learn, and share their experiences and knowledge of community revitalization challenges and solutions. The conference planning committee is looking for ideas in eight topic areas/tracks with seven session formats. Submissions are due by March 17, 2017. For more information and to submit an idea, see <http://brownfields2017.org/education/callforideas/>.

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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