NAVFAC Naval Facilities Engineering Command

Technology Transfer Update

This e-mail is supported by NAVFAC's Alternative Restoration Technology Team (ARTT) to provide links to Technology Transfer (T2) tools and the latest information on policies, guidance, and training related to innovative technologies. The T2 topics highlighted in this issue will help support the ARTT's chartered goals of promoting the use of innovative technologies, removing barriers to implementing new technologies, and reducing cleanup costs, while remaining protective of the environment and human health.

Issue 136 December 2, 2015

SERDP and ESTCP Webinar Series: Emerging Contaminants

SERDP DOD • EPA • DOE | ESTCP

DoD's Environmental Research Programs

Join SERDP and ESTCP on December 3rd for three presentations highlighting Department of Defense (DoD) efforts on prioritizing, detecting and treating emerging contaminants. The first talk will provide an overview of DoD's Emerging Contaminants (ECs) Program including the nature of risks posed by ECs and DoD's various initiatives to proactively manage these risks. The second presentation will examine the occurrence of a class of emerging contaminants called PFAS (Per and Polyfluoroalkyl Substances) in groundwater at DoD installations. The third presentation will preview results for a recently funded ESTCP project on the treatment of 1,4-dioxane using sustained slow release chemical oxidant cylinders.

Topic: Emerging Contaminants: DoD Overview and State of Knowledge on Fluorochemicals and 1,4-Dioxane

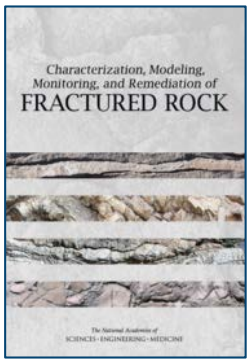
Presenters: Mr. Paul Yaroschak, Dr. Jennifer Field, and Dr. Patrick Evans

Date: December 3, 2015

Time: 9:00 AM PDT | 12:00 PM EDT

Please register at: https://www.serdp-estcp.org/Tools-and-Training/Webinar-Series

National Research Council: Characterization, Modeling, Monitoring, and Remediation of Fractured Rock

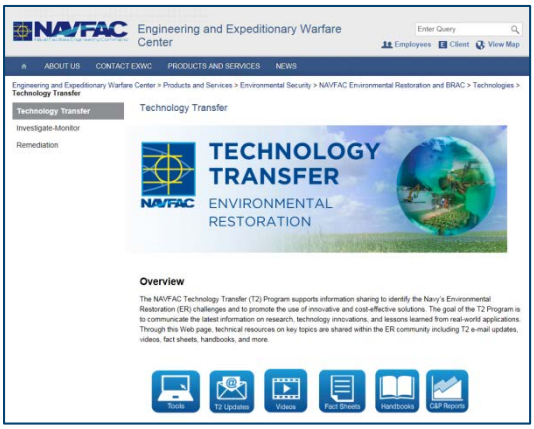


The National Research Council has issued an updated review on the outlook for the characterization and remediation of fractured rock sites. The report examines the capabilities and limitations of existing site characterization technologies. An integrated approach is advocated that relies upon the use of geologic, geophysical, geomechanical, hydrologic, and biogeochemical information to develop conceptual site models for fractured rock sites. The report also presents current knowledge related to the various chemical, biological, thermal, mechanical, and hydraulic processes that impact fate and transport in a fractured rock environment. A framework for future research needs is outlined.

View at: http://www.nap.edu/catalog/21742/characterization-modeling-monitoring-and-remediation-of-fractured-rock

NAVFAC Technology Transfer Resources

It is important for Navy Remedial Project Managers (RPMs) to stay informed about the latest innovative technologies and trends in the environmental industry. The NAVFAC Technology Transfer (T2) Program supports information sharing on the use of innovative and cost-effective solutions and offers several resources to keep up with the latest topics of interest within the Environmental Restoration (ER) community. New icons have been added to the T2 Web site to help to navigate and explore the resources.



Click on “Handbooks” to view the latest documents at:

http://www.navfac.navy.mil/navfac_worldwide/specialty_centers/exwc/products_and_services/ev/erb/tech/t2.html

- **Biogeochemical Transformation Handbook (October 2015)**: In situ biogeochemical transformation (ISBGT) processes result in the degradation of contaminants through combined biological, mineral, and chemical pathways. In this handbook, the mechanisms that contribute to ISBGT processes and the contaminants degraded by ISBGT are explored.

- **Sustainable Sediment Remediation (September 2015)**: Sediment sites are an important issue for the Navy; however, existing optimization and green and sustainable remediation (GSR) guidance is not specifically aimed at contaminated sediment issues. This report provides a connection between existing DON optimization/GSR guidance and DON guidance pertaining to contaminated sediment sites.

- **Passive Sampling for Vapor Intrusion Assessment (July 2015)**: This technical memorandum describes the basics of passive sampler theory and design, the available types of passive samplers, the advantages and limitations of passive samplers, and important considerations when implementing a VI passive sampling program.

- **Design Considerations for In Situ Chemical Oxidation (March 2015)**: The purpose of this document is to provide a framework for design submittals of in situ chemical oxidation (ISCO) systems. A summary is provided of ISCO design considerations, GSR best management practices (BMPs) for ISCO, and insights drawn from implementation and performance at Navy sites.

- **Design Considerations for Enhanced Reductive Dechlorination (March 2015)**: The purpose of this document is to provide a framework for design submittals of enhanced reductive dechlorination (ERD) systems. A summary is provided of ERD design considerations, GSR BMPs for ERD, and insights drawn from implementation and performance at Navy sites.

- **Attenuation Pathways for Munitions Constituents in Soils and Groundwater (January 2015)**: The objective of this report is to provide an understanding of natural and enhanced attenuation processes for munitions constituents (MC) in soils and groundwater. The scope of this report includes: MC issues; physical, chemical, and biological attenuation pathways; technology applications; and DoD case studies.

For questions or more information, please contact EXWC_T2@navy.mil or visit our Web page at: https://www.navfac.navy.mil/go/erb