Inside This Issue

Research & Demonstration Updates

Conventional Carbonate Formulations and Management

This ESTCP project is evaluating new carbonate formulations in order to meet the requirements of a new membrane technology for water treatment. The project is focused on developing and characterizing novel carbonate formulations that can be used in membrane processes such as reverse osmosis. This research is aimed at reducing the cost and environmental impact of water treatment technologies.

PFAS Treatment and PFAS-Free AFFF Alternatives

This ESTCP project is focused on developing alternative firefighting foam formulations that do not contain per- and polyfluoroalkyl substances (PFAS). The project is investigating the use of alternative surfactants and emulsifiers to create foam formulations that are effective for firefighting but do not pose significant environmental risks.

Building Energy-Efficiency Technologies

This ESTCP project is evaluating the use of nanofiber-based air filters for heating, ventilation, and air conditioning (HVAC) systems. The project is investigating the performance and energy consumption of nanofiber air filters compared to traditional air filters and the potential for reducing HVAC energy use.

Munitions Response Underwater

This ESTCP project is evaluating the use of remotely operated vehicles (ROVs) for capture of munitions underwater. The project is investigating the effectiveness of ROVs for capturing munitions and the environmental impacts of underwater munitions capture.

Landfill Gas Management

This ESTCP project is evaluating the use of gas capture and utilization technologies for landfills. The project is investigating the economic feasibility and environmental benefits of gas capture and utilization technologies for landfills.

Recent Publications

- "Assessing Benthic Bioaccumulation of Polychlorinated Dioxins/Furans (PCDD/Fs) and Polychlorinated Biphenyls (PCBs) in Sediments, Remediation Success, Recontamination and Source Identification" – Environmental Toxicology and Chemistry
- "Proof-of-Concept for the In Situ Toxicity Identification Evaluation (iTIE) Technology for Assessing Contaminated Sediments, Remediation Success, Recontamination and Source Identification" – ESTCP Final Report
- "Energy Consuming HVAC Air Filters" – ESTCP Final Report
- "Focus on Changing Fire Regimes: Interactions with Climate, Ecosystems, and Society" – Energy & Fuels

Upcoming Webinars

- June 2-7: The ESTCP Final Report
- June 1-3: "Waste Evolution and Treatment in Armed Forces Vessels"
- June 4, 2020 at 12:00 PM (ET): "Waste Reduction and Treatment in Armed Forces Vessels"
- August 11-13: "PFAS Treatment and PFAS-Free AFFF Alternatives"
- August 2-7: "Advancements in PFAS-Free AFFF Formulations"

Coastal Climate Change

- "Sea Level Change: Causes and Impacts" – Environmental Research
- "Ecosystem Changes and their Impacts on Coastal Ecosystems" – Environmental Research
- "Social Impacts of Coastal Climate Change" – Environmental Research
- "Impacts of Sea Level Rise on Coastal Ecosystems" – Environmental Research

Environmental Management

- "Strategic Environmental Research and Development Program (SERDP)" – Project Webpage
- "Environmental Management" – Project Webpage
- "Contaminated Sediments Remediation and Management" – Project Webpage
- "Waste Reduction and Treatment in Armed Forces Vessels" – Project Webpage

Headlines is a quarterly newsletter highlighting the latest research and demonstration efforts to address the DoD’s energy and environmental challenges.

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