Environmental Security Technology Certification Program (ESTCP)

ENVIRONMENTAL RESTORATION

Proposals in this topic area should address the reduction of the Department’s current liabilities and prevention of future liabilities through the demonstration of technologies or tools for the cost-effective management and remediation of chemical contaminants in soil, sediments, and ground and surface water. To provide strategic guidance for future demonstrations and technology transfer, SERDP and ESTCP periodically hold workshops to identify and prioritize needs on specific topics. Proposers are strongly encouraged to refer to the Summary Reports listed below.

- **Summary Report** from the July 2018 SERDP and ESTCP Workshop on Management of DoD’s Chlorinated Solvents in Groundwater Sites
- **Summary Report** from the May 2017 SERDP and ESTCP Workshop on Research and Demonstration Needs for Management of AFFF-Impacted Sites
- **Summary Report** from the August 2016 SERDP and ESTCP Workshop on Research and Demonstration Needs for Long Term Management of Contaminated Sediments

Data needs identified during these workshops are relevant to several of the specific areas of interest listed below. For those proposing projects addressing PFAS issues, review the SERDP and ESTCP memo for additional requirements.

**MONITORING**
Demonstrate technologies for the assessment or long-term monitoring of chemical contamination or biogeochemical indicators in soils, sediments, and water.

**REDUCTION IN COST TO COMPLETE**
Demonstrate innovative tools, methodologies or technologies that can reduce the DoD’s Cost to Complete for contaminated groundwater or aquatic sediments by improving performance assessment or optimizing treatment. Sites contaminated with per- and polyfluoroalkyl substances (PFAS) and/or chlorinated solvents, munitions constituents, PCBs, and PAHs are of most concern, but other contaminants may be of interest.

**REDUCE SOURCE LOADING OF MUNITIONS CONSTITUENTS**
Demonstrate innovative tools, methodologies or technologies that can reduce source loading of munitions constituents during routine DoD operations and demilitarization activities. Proposers are encouraged to refer to the Summary Report from the July 2015 SERDP and ESTCP Workshop on Research and Demonstration Needs for Management of Munitions Constituents.

**STORMWATER TREATMENT**
Demonstrate innovative tools, methodologies or technologies for management and treatment of stormwater runoff from DoD facilities. Consideration should be given to incorporation into
existing Best Management Practices and to meeting National Pollution Discharge Elimination System (NPDES) permit requirements.

**WASTEWATER TREATMENT**
Demonstrate innovative, energy efficient, low maintenance systems for decentralized treatment or recycling of wastewater on fixed installations. Systems that are capable of operating in an energy neutral configuration, that produce power or materials that can easily be converted into power, and/or that are capable of generating water for potable or nonpotable re-use are of interest.

**RISK ASSESSMENT**
Demonstrate technologies that are focused on improving the military's ability to assess and predict human and ecological risk from contaminants of concern including but not limited to PFAS, chlorinated solvents, munitions constituents, PCBs, and PAHs. Areas of concern include exposure pathways to humans and ecological receptors, contaminant effects on ecological receptors and tools and methods to assess environmental impacts.

**SPECIAL INTEREST TOPIC**
In FY20, ESTCP has issued one topic area of general interest through a Broad Agency Announcement (BAA) to the private sector:

- Innovative Technology Transfer Approaches

DoD investigators are encouraged to submit proposals through the DoD submittal process that respond to this BAA topic area.

**POINT OF CONTACT**
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