

Environmental Security Technology Certification Program (ESTCP)

**DEPARTMENT OF DEFENSE (DOD) INSTALLATION INFRASTRUCTURE RISK
EXPOSURE AND RESILIENCE DECISION SUPPORT TOOLS**

OBJECTIVE

Demonstration projects are sought to address the reduction of risk to the DoD's built and natural infrastructure. Proposed projects should demonstrate installation infrastructure decision tools for quantifying risk, resilience, and decision support focused on non-coastal extrinsic environmental risks to installation infrastructure. Sea level rise risk analysis need not be excluded in a proposed risk tool but should not be the principal focus.

BACKGROUND

The ESTCP Resource Conservation and Resiliency Program Area supports the DoD mission by demonstrating and validating innovative and cost-effective technologies that enhance DoD capabilities that rely on training lands, cantonment areas, test stands, and many other types of installation facilities. All installations face exposure to environmental risks that possess the potential to disrupt purpose and function. For example, installations with a training mission risk curtailed operations due to temperature extremes; in other locations, water availability is a critical risk element in developing and sustaining DoD capabilities.

This solicitation seeks the demonstration of risk management tools that quantify risks from exposures possessing the potential to impact near-, mid-, and long-term infrastructure missions. Quantification may include, but need not be limited to, the likelihood of occurrence of particular exposures, potential consequences, and knowledge regarding uncertainty in a particular element of risk exposure; how to reduce or manage that uncertainty; and the costs associated with reducing risk exposure. By way of an example, an expert system that pulls information from the currently mandated DoD Sustainment Management System (SMS) facility condition assessment software could have the potential to provide important and relevant information needed for planners, installation managers, and decision makers, if linked to information and models pertaining to extrinsic variables such as the spatial, temporal, and magnitude of environmental events.

All proposed tools must provide transparency in regard to estimates of uncertainty associated with the environmental factors for which the tool is designed, where transparency means insight into the source of the data or models used, scenario divergence, model uncertainty, observation uncertainty, and climate variability. The proposed tool may have links to different data sources that possess all of the attributes required to support the required analysis, but the user should be able to select and understand the available data.

POINT OF CONTACT

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