Environmental Security Technology Certification Program (ESTCP)

IMPROVED WILDLAND FIRE MANAGEMENT TOOLS FOR TESTING AND TRAINING LAND UTILIZATION

OBJECTIVE
ESTCP projects are sought that result in innovative tools, methodologies, or technologies that improve the ability of the Department of Defense (DoD) to manage risk from wildfires and support the use of prescribed fire for management of ecosystems, imperiled species habitat management, invasive and pest species management, fuels reduction, training area access, and other range sustainment purposes. This topic seeks proposals that demonstrate innovative but technically mature technologies and their associated methodologies. ESTCP will give priority to those technologies and methodologies that integrate emerging technology and novel data sources for fire applications and tools to meet specific management-defined needs. Proposed technologies and methodologies must have completed proof-of-principle testing. ESTCP supports test and evaluation at a scale sufficient to determine the operational performance of the technology or methodology and to estimate expected full-scale implementation costs. Proposals should provide adequate evidence that the technology once demonstrated and evaluated will be mature enough to be transitioned into use by natural resource managers, wildland fire managers, or other ecosystem management professionals at the end of the project.

BENEFITS
These tools herein developed will improve natural infrastructure and avoid degradation of operations and restrictions or loss of access to test and training areas, and improve the health and safety for base personnel and surrounding communities.

BACKGROUND
Military training inherently requires the management of wildfire and prescribed burns because training and live-fire activities often initiate fires that have in the past and continue to hold the potential to impact personnel, infrastructure on military installations, and surrounding communities. The military land conditions readiness thrust area described in the resource conservation research plan\(^1\) focuses on the need for research that improves DoD wildland fire management. Range managers need the ability to deploy tools that directly support DoD natural infrastructure including management of wildland fire. These tools must be sufficiently mature to enable natural resource managers to make risk-based tradeoffs for prescribed burn frequency and conditions, manage landscapes to decrease risks from wildfires, improve landscape resiliency, and predict emissions and smoke dispersion patterns resulting from wildfires and prescribed fires.

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\(^1\) The Strategic Environmental Research and Development Program (SERDP) and the Environmental Security Technology Certification Program (ESTCP) Resource Conservation and Resiliency (RCR) Program Area Research Plan, 2021–2025 (February 2021).
POINT OF CONTACT
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For pre-proposal submission due dates, instructions, and additional solicitation information, visit the ESTCP website.