

DEPLOYABLE WATER METERING AND MONITORING SYSTEM

PROJECT OVERVIEW

Water, fuel, and ammo represent the top 3 resupply demand signatures for Multi-Domain Operations (MDO). MDO will require brigade combat teams (BCTs) to go faster, further, and longer between resupply intervals. Monitoring water supplies (quantity and quality) under these conditions will support Soldier Lethality on the modern battlefield. A new 'smart' water metering unit will provide real-time monitoring of water quality and metering of water quantity. The project will integrate metering and monitoring, covering a broad array of contaminants and parameters than existing capabilities.

BENEFITS

This technology will primarily benefit the warfighter in MDO by increasing situational awareness for water sustainment activities. A successful outcome to this NDCEE project will result in increased military capabilities for integrated metering and monitoring of water supplies in MDO and resilient installations.

PATH FORWARD

The technology integration, demonstration, data collection, and validation will occur at Presidio of Monterey, CA and CBITEC at Fort Leonard Wood, MO. The technology will be transitioned to ASA IE&E through a technical guidance for technology integration to support sustainment of BCTs in MOD as well as emergency operations at resilient installations.



Smart modular online water monitor & analyzer



Intelligence platform for smart water management

- Detection, transmission, & analysis in real-time
- Automated calibration
- Automated cleaning
- Lab precision levels of accuracy (in ppb) using EPA-compliant methods
- Proactive warnings
- pH, TDS, chlorine, conductivity, temperature, salinity, DO, calcium hardness, alkalinity, copper, lead, cadmium, arsenic, nitrates, chromium, manganese, boron, silica, calcium

DoD Executive Agent

Office of the Assistant Secretary of the Army for Installations, Energy, and Environment

UNCLASSIFIED: Distribution A. Approved for Public Release; distribution Unlimited, per AR 380-5, OPSEC Review conducted per AR 530-1 and ERDC OPSEC Plan (22 Jun 2017)

FOR FURTHER INFORMATION

National Defense Center for Energy and Environment
<http://www.denix.osd.mil/ndcee/home>

U.S. Army Corps of Engineers Engineer Research and Development Center-Construction Engineering Research Laboratory (ERDC-CERL)
<http://www.erd.usace.army.mil/Locations/CERL>