

The department is evaluating water availability impacts on mission readiness through data collection, resilience assessments, and new policy and guidance development to ensure installations are prepared for the challenges of tomorrow.

Did You Know...

DAF recently completed one of its **largest water conservation projects** at Kadena AFB. The project saved **60 million gallons** and **\$785,068** in FY22 alone and won a 2023 FEMP Award in the project category!

Water Resources Management

Why it Matters

Water is essential to many mission sets, yet faces pressure from increasing industrial practices and growing populations, all competing over an increasingly scarce resource. Meanwhile, climate change impacts, aging infrastructure, and supply disruptions make meeting mission water requirements more challenging. To proactively address these challenges and ensure mission readiness across its installations, the Department of the Air Force (DAF) established the Water Security program in 2023. This program is a part of DAF's efforts to ensure end-to-end resilience for mission critical infrastructure in the face of Great Power Competition.

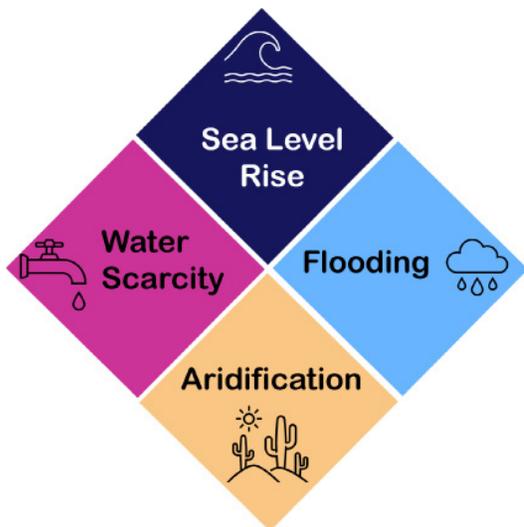
Key Focus Areas

DAF is developing innovative strategies to improve resilience to water scarcity or supply disruptions to:

- Ensure mission capability regardless of environmental conditions
- Diversify source water supply to increase resilience and improve mission assurance
- Ruggedize DAF installations against climate impacts



Water Security Program



Water Resilience Readiness Exercises

In 2023, DAF launched the Water Resilience Readiness Exercise (WRRE) Pilot Program to evaluate and bolster mission resilience in the face of potential water supply disruptions. These scenario-based tabletop exercises will run concurrently with Energy Resilience Readiness Exercises and water will not be turned off. DAF conducted its first WRRE in March 2024 and plans to conduct three more sessions between 2024 and 2025.

Installation Water Dashboard

The Installation Water Dashboard centralizes data on water infrastructure and regional water risks to facilitate a comprehensive understanding of water demands for critical functions. Initially piloted at seven sites in FY2020, it has since been implemented across all active-duty installations since July 2021. This platform consolidates information on consumption practices, rights documentation, vulnerabilities, mission-related water usage, and resilience documents. Recent upgrades include integration with AFRC and ANG installations, enhanced tools, and report generation capabilities. DAF's Water Dashboard Scorecard and Water Availability Scorecard complement the Dashboard, aiding in the assessment of water risk and scarcity and guiding prioritization of resilience projects and funding allocation.

Mountain Home Water Resilience Project

Mountain Home Air Force Base (MHAFB) relies on a regional confined groundwater aquifer that is experiencing a ~2.0 feet per year decline in water levels. To bolster water access and enhance resilience at MHAFB, the State of Idaho, the Idaho Water Resources Board, and DAF are collaborating to deliver surface water from the Snake River to the base. The State of Idaho will oversee the construction of a pipeline and pump station, with an estimated cost of \$61.7 million, which will then be gifted to DAF upon completion. Additionally, DAF will undertake the construction of a \$49.3 million Water Treatment Plant, slated for completion by February 2026.

Managed Aquifer Recharge

DAF is teaming up with the Air Force Institute of Technology to assess the feasibility of Managed Aquifer Recharge (MAR) across the enterprise. This involves deliberately replenishing natural aquifers with water. Factors such as water surplus, infrastructure readiness, water quality, aquifer condition, and regulatory compliance are considered in determining which installations are most suitable for pilot projects. The goal is to develop site-specific MAR plans for installations, informing future water resilience planning enterprise-wide.



The Department of the Air Force is taking a resilience-focused approach to future energy and water projects concentrated on providing strategic agility for missions and installations

For more information:

 safie.hq.af.mil/InstallationEnergy

 AirForceEnergy  @AFEnergy