REPI

UNITED STATES DEPARTMENT OF DEFENSE
READINESS AND ENVIRONMENTAL PROTECTION INTEGRATION PROGRAM

REPI AND MILITARY INSTALLATION RESILIENCE

REPI AND MILITARY INSTALLATION RESILIENCE

The REPI Program has the authority to address climate change hazards and increase military installation resilience under 10 U.S. Code (U.S.C.) § 2684a(a)(3)(B)(ii). This authority allows the Military Services and partners to develop off-base natural infrastructure solutions designed to protect critical infrastructure, military personnel, and testing or training operations from climate change impacts. DOD recognized the REPI Program in the **2021 Climate Adaptation Plan** as one of the key programs that will be used to ensure the Military Services can operate under changing climate conditions.

Natural infrastructure solutions, such as wildfire risk mitigation, living shoreline construction, or habitat restoration, create an initial line-of-defense for installations and communities, enhance natural habitats, and help installations prevent, prepare for, and recover from anticipated or unanticipated changes in environmental conditions.

When executing a resilience project, installations may also leverage the Sikes Act (16 U.S.C. § 670c-1), and Intergovernmental Support Agreements (10 U.S.C. § 2679). The Sikes Act allows the Military Services to enter into cooperative agreements for the management of natural resources both on and off installations to "relieve or eliminate current or anticipated challenges that could restrict, impede, or otherwise interfere with, whether directly or indirectly, current or anticipated military activities" (16 U.S.C. § 670c–1(a)(2)).

Intergovernmental Support Agreements (IGSA) allow DOD to receive services, supplies, and resources from a state or local government that increase climate change resilience.

Military installation resilience is defined in 10 U.S.C. § 101(e)(8) as:

"the capability of a military installation to avoid, prepare for, minimize the effect of, adapt to, and recover from extreme weather events, or from anticipated or unanticipated changes in environmental conditions, that do, or have the potential to, adversely affect the military installation or essential transportation, logistical, or other necessary resources outside of the military installation that are necessary in order to maintain, improve, or rapidly reestablish installation mission assurance and mission-essential functions."

Within this statutory framework, the REPI Program continues promoting new opportunities to protect range assets and capabilities through enhanced installation resilience. Several DOD installations are using the REPI Program's resilience authority to preserve coastal wetlands, mangroves, and oyster reefs to reduce storm surge and flooding; manage forest lands to reduce wildfire risks to infrastructure; and protect upstream water resources to minimize likelihood of drought and consequent constraints on installation missions. REPI projects that increase military installation resilience must meet the applicable requirements of 10 U.S.C. § 2684a and support installation training, testing, and operations.

COMPLEMENTARY RESILIENCE PROGRAMS

In addition to the REPI Program, there are several other programs and awards focused on improving resilience. Please visit **www.repi.mil/Resilience/Complementary-Federal-Programs/** to learn more about resilience programs offered by other federal agencies and non-governmental organizations.

What are Climate Change Impacts?

- Sea Level Rise and Recurring Flooding
- Increase Drought Conditions
- Extreme Weather
- Increased Wildfires
- Inland Flooding
- Increased Precipitation
- Impacts on Protected Species or Habitat
- Thawing Permafrost

Read more about the impacts of climate change at **https://repiprimers.org/resilience/**.

RESILIENCE SUCCESS STORIES

Installations across the country are leveraging the REPI Program to address climate change impacts and protect mission priorities.

NAVAL AIR STATION PENSACOLA, FLORIDA:
Enhancing Readiness and Building Resilience to Coastal Hazards

The Pensacola Bay system surrounding Naval Air Station (NAS) Pensacola continues to face severe degradation due to sea level rise and extreme weather events. Historic aerial photographs show up to 200 feet of shoreline retreat along portions of Magazine Point, a shoreline that directly neighbors the installation and protects critical naval infrastructure. Through the 2022 National Coastal Resilience Fund, Escambia County received $6.57 million in REPI funding coupled with $4.36 million in funding from the National Oceanic and Atmospheric Administration to create 33 acres of emergent marsh along Magazine Point, establish five acres of oyster reef break waters, and provide for natural recruitment of up to 25 acres of submerged aquatic vegetation.

By enhancing the Magazine Point shoreline, this project is expected to conserve 6,200 linear feet of exposed shoreline, improve habitat for coastal bird species, and protect the Navy's 500-foot vessel exclusion zone. Through these project efforts, the Navy and Marine Corps are safeguarding one of the primary training facilities at NAS Pensacola and leveraging funding from multiple partners to improve military installation resilience to coastal climate hazards.

FORT HUACHUCA, ARIZONA:
Wildfire Risk Reduction and Water Security Through Resilience Partnerships

Fort Huachuca is home to premier restricted military airspace for unmanned aircraft system training in the Western United States and the Buffalo Soldier Electronic Test Range and electromagnetic complex, supporting training for U.S. Army, Air Force, Marine Corps, and Border Control personnel. An increase in urban sprawl, electronic interference, dangerous wildfires, and drought has stressed the installation's water supply and overall mission.

To improve Fort Huachuca's groundwater resilience to drought, the Arizona Land and Water Trust received $1.3 million in 2023 REPI Challenge funding to permanently protect 7,300 acres of high-conservation value land as well as due diligence for critical water infrastructure. This project will support ecological and water supply resilience across the Fort Huachuca Sentinel Landscape and provide significant and varied strategic benefits to the installation's mission. This REPI Challenge project complements previous REPI Challenge projects by building on the Water Supply and Use Assessment pilot on the 1,150-acre Rose Tree Ranch, which analyzed historic pumping records, groundwater levels, and surface flows in the Upper San Pedro Basin.

Fort Huachuca is also working in close collaboration with partners across the Fort Huachuca Sentinel Landscape to protect installation resources from catastrophic wildfires. The installation received funding through the U.S. Forest Service to complete tree thinning in neighboring forests and reduce the risk of wildfires reaching the installation and neighboring communities.

HOW TO DEVELOP A REPI RESILIENCE PROJECT

The graphic below provides guidance on the potential steps that installations and their partners should take to pursue funding from the REPI Program for a climate resilience project. Learn more about each of these steps at **https://repiprimers.org/resilience/**.