



REPI

UNITED STATES DEPARTMENT OF DEFENSE
READINESS AND ENVIRONMENTAL
PROTECTION INTEGRATION PROGRAM

2023 REPI CHALLENGE HAWAII



The REPI Program

The Department of Defense (DOD)'s Readiness and Environmental Protection Integration (REPI) Program facilitates long-term, collaborative partnerships that improve resilience, preserve important habitats and natural resources, support sustainable and productive land uses, and promote resilient natural and working lands and waters and their surrounding communities.

REPI Challenge

For the 12th consecutive year, the REPI Program hosted the annual REPI Challenge, a competition with dedicated funding to advance REPI project outcomes through large-scale innovation and conservation. The REPI Challenge aims to:



Cultivate projects that protect natural and cultural resources using diverse funding avenues.



Protect critical testing and training capabilities while fostering long-term sustainability for communities surrounding installations.



Support DOD's strategic priorities and the REPI Program in meeting its ambitious goals.



Harness the creativity of organizations with shared priorities to access unconventional funding sources and leverage market-based approaches.

2023 REPI Challenge Harnesses the Power of Partnerships in Hawai'i

The 2023 REPI Challenge in Hawai'i **contributed \$10 million** in REPI Program funds to be coupled with **\$18.5M million** in partner contributions. These funds will help implement **four projects** focusing on shared challenges on **the islands of O'ahu, Kaua'i, and Hawai'i. All four projects** will strategically work towards **improving coastal, forest, and watershed resilience**, which benefits **long-term sustainability for local communities** and the DOD mission. In Hawai'i and across the country, REPI Challenge projects advance multiple missions through collaboration with conservation partners and state and local governments. The 2023 REPI Challenge projects in Hawai'i will contribute to initiatives safeguarding the military mission at **Pacific Missile Range Facility Barking Sands, Pōhakuloa Training Area, Marine Corps Base Hawai'i, and U.S. Army Garrison-Hawai'i.**

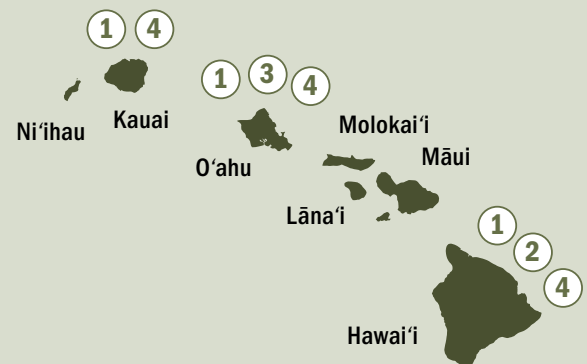
REPI Challenge Investments in Hawai'i

Since 2021, REPI Challenge in Hawai'i has supported habitat protection, watershed improvement, and installation resilience by:

- **\$30.2M** in protecting vital natural resources and critical military missions;
- **\$35.2M** in partner contributions, providing a cost-savings ratio of 1:1; and
- **8 locations** with projects restoring critical habitats and native forests, protecting island aquifers, climate adaptation efforts, and promoting compatible land uses.

To learn more about this year's REPI Challenge funding recipients, explore the full [2023 REPI Challenge Package](#).

1. U.S. Army Garrison-Hawai'i, Pacific Missile Range Facility Barking Sands, Marine Corps Base Hawai'i, O'ahu & Kaua'i, & Hawai'i Island
REPI Funds: \$2.9M
2. Pōhakuloa Training Area, Hawai'i Island
REPI Funds: \$1.3M
3. U.S. Army Garrison-Hawai'i: Makua Military Reservation, Schofield Barracks, Kahuku Training Area, Poamoho Training Area, O'ahu
REPI Funds: \$2.7M
4. Pacific Missile Range Facility Barking Sands, Marine Corps Base Hawai'i, Pōhakuloa Training Area, Kaua'i, O'ahu, Hawai'i Island
REPI Funds: \$3.1M



For more information about the REPI Program and supportive DOD efforts, please visit repi.mil.



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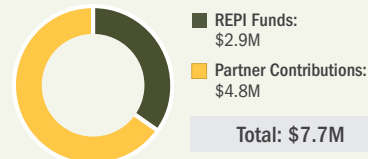
U.S. Army Garrison–Hawaii, Pacific Missile Range Facility Barking Sands, Marine Corps Base Hawaii, Oahu, Kauai, & Hawaii Island

Increasing Resilience of Endangered Wildlife Found on Critical Landscapes

- U.S. Army Garrison–Hawaii, Pacific Missile Range Facility Barking Sands, and Marine Corps Base Hawaii are working in close collaboration with the National Fish and Wildlife Foundation (NFWF) **to protect and enhance native habitats that support conservation and climate resilience.** NFWF is an independent 501(c)(3) non-profit that **protects and restores imperiled species, promotes healthy oceans and estuaries, improves working landscapes for wildlife, advances sustainable fisheries, and conserves water for wildlife and people.**
- The island of Lānaʻi, located in the Maui Nui complex, is home to numerous **threatened, endangered, and at risk species**, many of which are similar to those also found on DOD installations on other islands, such as Pōhakuloa Training Area (PTA) and Pacific Missile Range Facility (PMRF). This project will **create a predator-protected nesting area** for endangered band-rumped storm petrels, restore rare native dry-forest habitat, **establish a protected, artificial habitat** for reintroducing endangered orangeblack Hawaiian damselflies, and **preserve and restore native forest habitat** critical for recharging the island's freshwater aquifer.
- This ground-breaking project will **build the first landscape-scale fenced management area on Lānaʻi to cultivate at-risk native landscapes and species in a compatible environment** free of non-native, damaging animals like feral pigs and deer. The shared benefit to all partners is large-scale habitat improvement on Lānaʻi, ultimately **increasing numbers of at-risk species** found primarily within critical DOD training areas, away from military operations.



'Akē'akē—or band-rumped storm-petrel—is the smallest and rarest seabird that breeds in Hawaii.



NOMINATING PARTNER

National Fish and Wildlife Foundation



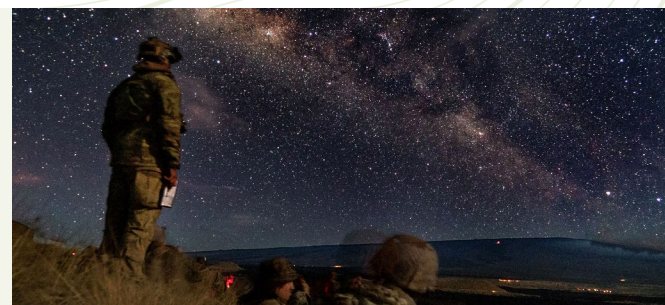
KEY PARTICIPATING PARTNERS

- Lānaʻi Resorts, LLC, dba Pūlama Lānaʻi
- Pono Pacific Land Management, LLC
- State of Hawaiʻi Department of Land and Natural Resources, Division of Forestry and Wildlife
- U.S. Fish and Wildlife Service
- U.S. Geological Survey

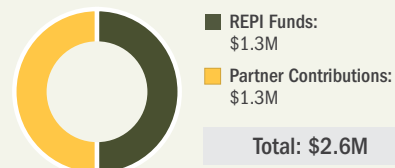
Pōhakuloa Training Area, Hawaii Island

Nāpuʻu Natural Resource Protection: Mitigating Rare Plant Impacts

- In collaboration with Pōhakuloa Training Area, this landscape-scale conservation project will combine efforts with the State of Hawaiʻi Department of Land and Natural Resources, Division of Forestry and Wildlife to **provide natural resource protection on Hawaiʻi Island.** Through local partnerships and community efforts, the Division of Forestry and Wildlife **protects, manages, and restores the natural and cultural resources of Hawaiʻi.**
- The Nāpuʻu region of Hawaiʻi Island, state-managed lands in North Kona that are adjacent and ecologically similar to those found within PTA, has a combination of degraded, non-native, and fire-prone grasslands inhabited by non-native, hooved animals. Wildfires and invasive species present an **extreme threat to native vegetation and at-risk species** scattered throughout the region, reducing their resilience to climate change and chances for survival. This project employs **fence installation and habitat restoration activities that will protect and increase at-risk species** numbers by reducing non-native species cover and removing non-native mammals, thereby improving and increasing the habitat for those at-risk species. Outreach and education support through this project will provide opportunities for the community to learn about bio-cultural restoration and fire awareness while, in turn providing volunteer work such as out planting of native species, weeding of restoration areas, and fire fuels reduction.
- Shared benefits of this critical work include enacting a **collaborative approach to natural resource management** that will help **address impacts from and provide support for essential mission capabilities** of PTA while **stabilizing and increasing important habitat and state-wide populations of multiple at-risk species** in Hawaiʻi.



Marines, along with soldiers from Australia and New Zealand, watch as ordnance is fired during Rim of the Pacific exercise at Pōhakuloa Training Area, Hawaii, July 18, 2018.



NOMINATING PARTNER

State of Hawaiʻi Department of Land and Natural Resources, Division of Forestry and Wildlife



KEY PARTICIPATING PARTNERS

- U.S. Forest Service Institute for Pacific Islands Forestry
- Nāpuʻu Natural Resource Management and Plant Extinction Prevention Program
- University of Hawaiʻi Pacific Cooperative Studies Unit
- Akaka Foundation for Tropical Forests



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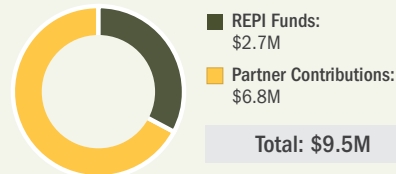
U.S. Army Garrison–Hawai‘i: Makua Military Reservation, Schofield Barracks, Kahuku Training Area, Poamoho Training Area, O‘ahu

Ecosystem Restoration and Rare Plant and Animal Preservation on O‘ahu

- The proposed work to **preserve threatened and endangered species and enhance watersheds** throughout O‘ahu is made possible through coordination between the U.S. Army Garrison–Hawai‘i, the State of Hawai‘i Department of Land and Natural Resources, Division of Forestry and Wildlife, and the Wai‘anae Mountains Watershed Partnership (WMWP). WMWP, and nine other watershed partnerships across the state, are voluntary alliances of government and private landowners and land stewards committed through collaborative management to the common value of protecting Hawai‘i’s forested watersheds – the islands’ only source of fresh water – and the natural and cultural values and benefits they provide.
- O‘ahu is home to **numerous plant and animal species**; many are **threatened and endangered** and found on no other islands. Several of these plants and animals reside on DOD installations and adjacent state lands, presenting both a **threat to their health and survival and constraints on military capabilities and readiness**. This project would significantly **increase the effective management of rare species and their habitats through collection, propagation, and return into protected off-site habitats**. Active habitat support, including fire prevention and invasive species control activities, will also **enhance the nearby watershed, aquifer, and installation resilience** in the long term.
- Shared benefits of this project include **species conservation, watershed improvement, and installation resilience**. On state lands adjacent to military installations, the project partners will work collaboratively on invasive species management, watershed planting and enhancement, and fire prevention through hazardous fuels reduction. This joint effort will **benefit threatened and endangered species and habitats, support freshwater sources, reduce restrictions on military operations, and prevent the listing of other species within DOD training areas**.



The lo‘i kalo—or wetlandland taro—of Ka‘ala Farms, located beneath the Wai‘anae Mountains, serve as a reminder of the importance of healthy watersheds.



NOMINATING PARTNER

State of Hawai‘i Department of Land and Natural Resources, Division of Forestry and Wildlife



KEY PARTICIPATING PARTNERS

- Wai‘anae Mountains Watershed Partnership

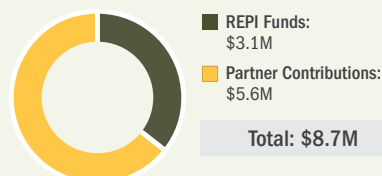
Pacific Missile Range Facility Barking Sands, Marine Corps Base Hawai i, Pōhakuloa Training Area, Kaua‘i, O‘ahu, Hawai‘i Island

Detection and Management of High-Impact Aquatic and Terrestrial Invasive Species

- DOD installations across Kaua‘i, O‘ahu, and Hawai‘i Island are working with the State of Hawai‘i Department of Land and Natural Resources, Division of Forestry and Wildlife to **manage invasive species**. Participating organizations, such as the Ko‘olau Mountains Watershed Partnership, fosters **landowner collaboration and perpetuate the water resources of O‘ahu by protecting and enhancing native ecosystems**.
- **Pacific Island communities are experiencing unprecedented climate change** in the formation of invasive biological communities, and the risk of climate impacts is likely to occur disproportionately in these regions. For example, **coral reefs**, between Kāne‘ohe Bay and Kailua Bay, that **protect Marine Corps Base Hawai‘i (MCBH) from the effects of large surf, strong currents, and storm surges are threatened by invasive species**. Without healthy, intact reefs surrounding Mokapu Peninsula, DOD installations will not be protected from storms that are growing in intensity from climate change. This project employs **the development of eDNA technology for the detection of invasive aquatic species** in Hawai‘i harbors, **expansion of native urchins to manage widespread invasive algae** in Kāne‘ohe Bay, and **use of conservation detection dogs and DOD-approved unmanned aerial vehicle surveys to manage priority pests and weeds** on Hawai‘i, O‘ahu, and Kaua‘i.
- This innovative project requires close partner coordination to achieve the shared benefits of **healthy reef conservation, increased climate resilience, and enhanced installation resilience**. Through joint efforts with the State of Hawai‘i, this project will **strengthen the shores of Hawai‘i while providing increased water supply and quality, decreased wildfire fuels, enhanced storm resistance, and reduced high-impact invasive species in the vicinity of PMRF, MCBH, and PTA**.



Healthy reef conservation at Kāne‘ohe Bay, pictured above, is critical to increasing climate resilience at installations like Marine Corps Base Hawai‘i and surrounding coastal communities.



NOMINATING PARTNER

State of Hawai‘i Department of Land and Natural Resources, Division of Forestry and Wildlife



KEY PARTICIPATING PARTNERS

- Ko‘olau Mountains Watershed Partnership
- O‘ahu, Hawai‘i Island, and Kaua‘i Invasive Species Committees
- State of Hawai‘i Department of Land and Natural Resources, Division of Forestry and Wildlife, and the Division of Aquatic Resources
- U.S. Forest Service Institute of Pacific Island Forestry
- University of Hawai‘i Pacific Cooperative Studies Unit