



**Department of Defense
Legacy Resource Management Program**

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National Public Lands Day 2022
NEEF-NPLD-22

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National Public Lands Day 2022

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Abstract/Executive Summary

The Department of Defense (DoD) Legacy Resource Management Program (Legacy Program) provides funds to the National Environmental Education Foundation (NEEF) for National Public Lands Day (NPLD) partnership projects on military lands that are open to the public for recreation. Funds are available for base-level projects on any DoD site that supports the goals of NPLD to improve the quality of public lands and to educate the public about natural resource issues and stewardship on military lands that are open to the public for recreation. NEEF builds partnerships between the public sector and local communities based upon their mutual interests in enhancing, restoring, and enjoying America's public lands. Installations will apply for an NPLD DoD Legacy Program Award (Award) through a competitive funding application process. NEEF administers this Award, including the application and evaluation, along with awarding funding. NEEF also coordinates with the DoD Legacy Program office on the Award application announcement. The Award is announced via email and on NEEF's website, newsletters, and social media.

In commemoration of this year's NPLD, DoD, through the Office of the Deputy Assistant Secretary of Defense for Environment and Energy Resilience, and the Legacy Program, funded NPLD projects on military lands that are open for recreation. The 2022 Awards provided up to \$20,000 to selected installations to implement pollinator protection projects; climate adaptation/resilience habitat restoration projects; or natural and cultural resources management, restoration, or enhancement projects on or around this year's NPLD on September 24, 2022.

For 2022, DoD asked applicants to think creatively and strategically about how they can positively impact the environment and help participants to learn about these lands and their

natural and cultural resources. NEEF sought proposals that enhance broader strategic or programmatic initiatives at installations.

Introduction

The COVID-19 pandemic fundamentally changed the way Americans were able to engage with public lands. From iconic national parks to local urban green spaces, the threat of COVID-19 made it extremely difficult - if not impossible - for many land managers to host large in-person events on public lands. However, this year's NPLD had significant increases from the previous year in the number of registered events and volunteers since the impact of COVID-19.

The annual NPLD celebration is the largest single-day volunteer effort for America's public lands. Each year, hundreds of thousands of volunteers come together on the fourth Saturday in September to assist land managers with environmental projects designed to enhance and restore national parks, recreation areas, wildlife refuges, and other public lands and waters. To date, NPLD has received over \$3 million through the DoD Legacy Program. In 2022, over 600 public lands sites across the U.S. hosted NPLD events, and together they engaged more than 55,000 participants in both hands-on conservation and virtual activities.

NPLD has evolved due to the coronavirus pandemic by adapting and continuing to embrace virtual events. Although public land sites registered more in-person events than in the previous two years, NEEF is still focusing on in-person events while encouraging virtual events. In the previous two years, public lands have had significant increases in the number of visitors, therefore, increasing deferred maintenance and overdue maintenance in public parks, forests, and other sites. With increased recreational usage of public lands, NEEF was

able to highlight innovative ways that NPLD events can reach diverse audiences to volunteer with the theme of “Giving Back Together for our public lands.” In 2022, NPLD events included cleaning the wall of names at the Vietnam Veterans Memorial in Washington, DC, releasing captive-bred California condors at the Vermilion Cliffs National Monument in Arizona, and restoring the habitat of the endangered New England cottontail rabbit at the Rachel Carson National Wildlife Refuge in Maine.

On September 24, 2022, NEEF celebrated NPLD along with over 600 sites across the nation. As part of the 29th annual NPLD, approximately 55,000 participants either visited public land sites across the nation or engaged in virtual events to contribute to improvement projects. Events took place in all 50 states, the District of Columbia, and US territories. Many NPLD events included an environmental education component to teach volunteers about land stewardship. In 2022, NPLD focused on conservation activities supporting in-person and virtual events designed to engage volunteers and connect people to public lands through hands-on educational and volunteer events.

Project Description

The DoD Legacy Program provides funds to NEEF for NPLD partnership projects on military lands that are open to the public for recreation. Funds are available for base-level projects on any DoD site that supports the goals of NPLD: to improve the quality of public lands and to educate the public about natural resource issues and stewardship on military lands that are open to the public for recreation.

In 2022, a total of \$160,000 was distributed to installations for materials and supplies. These funds were used to enhance DoD lands through various climate resilience, cultural and

natural resource improvement projects. Participating in NPLD provides natural and cultural resource managers with the means and labor to complete small installation-specific projects that may not otherwise get done due to budget or staffing limitations. The objective of the award is to fund projects that improve habitat and biodiversity for common and rare species alike, reducing the overall need for intense management and care of these species.

NEEF received 24 applications for DoD Legacy Program awards of up to \$20,000 each for 2022 NPLD projects. In September 2022, NEEF notified 14 sites that they were selected to receive an Award. Bellows Air Force Station in Hawaii was awarded within the original 14 sites but unfortunately could not execute this year's NPLD award due to the overturn of personnel and resulting person-power gaps. Instead, Joint Base Pearl Harbor Hickam, NAVFAC Hawaii was awarded and received the funding.

DoD Legacy Program funds were awarded by NEEF to sites via direct payments to the installation or reimbursements to vendors for all items purchased that pertained to the awarded project. The branches awarded DoD Legacy Program funding consisted of four Air Force, three Army, three Army/Air National Guard, and four Navy sites.

The United States Air Force



Beale Air Force Base | California Beale Air Force Base Pollinator Trail

Project Date: October 17th, 2022 – October 28th, 2022

Project Summary: The Beale Air Force Base project addressed the need for increased coverage of pollinator habitat on the base. Native plants provide habitat, nectar resources, and host sites for native pollinator species. In turn, pollinators are important for the reproduction of native plant species. Therefore, volunteers at the direction of biologists increased native pollinator habitat coverage through planting and seeding pollinator species.

The event coordinators along with local biologists provided instructions to volunteers for planting and seeding in a pollinator habitat. Volunteers then installed additional native pollinator plants and seeded native pollinator species. The event coordinators assisted volunteers, answered questions, and provided information about native Californian pollinators and how to create a successful habitat at home. The installation of the native plants will help to increase climate resiliency now and in the future by providing nectar resources for pollinators and by increasing carbon sequestration through revegetation.

Contact: Tamara Gallentine, Natural Resources Manager | 530-634-2738 | tamara.gallentine.2@us.af.mil

Project Output Totals:

- ***15 volunteers***
- ***531 native plants added***
- ***323,703 square feet of land restored or maintained***
- ***323,703 square feet of invasive species removed***
- ***1 mile(s) of trail restored or maintained***

Wright-Patterson Air Force Base | Ohio Wright Memorial Tree Planting Event

Project Date: October 14th, 2022

Project Summary: Wright-Patterson Air Force Base accomplished the planting of native Oak trees at Wright Memorial. This is a continuation of the installation's focus on creating a sustainable urban canopy at a culturally and historically significant site. The original Olmsted trees are older and a plan was needed to ensure the sustainability of the site. The tree planting

activity brings the site another step closer to completing its master planting plan for Wright Brothers Memorial.

The overall goal was to provide their community with a beautiful natural setting where they can enjoy time alone, take a walk, have a picnic, or play with their children. Volunteers learned the significance of oak trees to overwintering populations of insects and mammals in Ohio. These trees will provide habitat for pollinators, and provide a relaxing site to recreate for military members and the general public. Furthermore, the project improved and expanded existing pollinator habitats and provides important ecosystem services to the area such as shade, carbon capturing, clean air, and wildlife habitat.

Project Output Totals:

- *30 volunteers*
- *30 native plants added*
- *1 cultural resources or historical properties affected*
- *32,000 square feet of land restored or maintained*

Contact: Danielle Trevino, Biological Scientist | 801-660-0274 | danielle.trevino.1@us.af.mil

**Hurlburt Field Air Force Base | Florida
Hurlburt Field Grace Brown Nature Trail Restoration 2022**

Project Dates: September 23rd, 2022

Project Summary: The Grace Brown Nature Trail is an excellent outdoor recreational trail located on the southside of Hurlburt Field Air Force Base behind base housing and along the Santa Rosa Sound. The trail is an elevated boardwalk covering cultural sites, and creating a sustainable trail over the sites is imperative for natural and cultural resource protection. In 2020, Hurricane Sally caused severe damage to boardwalks and interpretive signage. This is the only nature trail on base for community members. In 2021, volunteers removed garbage washed into the woods by the Hurricane and repaired additional boards on the boardwalks.

Project Output Totals:

- *9 volunteers*
- *50 square feet of land restored or maintained*
- *100 pounds of trash collected and disposed*
- *3 structure(s) rebuilt or repaired*
- *2 cultural resources and historical properties affected*
- *1 mile(s) of trail restored or maintained*

For NPLD 2022, volunteers installed birdhouses, replaced rotting boards from the boardwalks, and used gravel to create retaining walls along the trail to prevent erosion and maintain access for recreation at the trail site. This trail provides exceptional outdoor recreation opportunities to military families, active-duty military, and base visitors, and is important for physical and mental health. This trail highlights rare ecosystems in Florida. Fixing the boardwalks and maintaining the trail contribute to natural and cultural resource conservation by encouraging recreationists to learn more about the ecosystems that the trail traverses through.



Credit: Lorraine Ketzler

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Joint Base San Antonio | Texas Camp Bullis Sentinel Landscape Demonstration Garden

Project Dates: September 1st, 2022 – September 27th, 2022; October 2nd, 2022 – October 9th, 2022; November 8th, 2022; December 10th, 2022 – December 31st, 2022; January 1st, 2023 – January 28th, 2023; February 9th, 2023 – February 28th, 2023; March 1st, 2023 – March 31st, 2023; April 1st, 2023 – April 26th, 2023

Project Summary: This project focused on the creation of native pollinator habitats through the installation of native pollinator plants such as milkweed and button bush, and breaking ground on a brand new pollinator garden. The grant allowed the installation to plant an arboretum that will be used to educate visitors on the appropriate native plants for pollinator projects as well as their own homes. Volunteers broke ground on the garden and installed 10 trees, native plants, drainage, and fencing at the site. The pollinator garden was needed because most of the trees on site have died without replacement, therefore, losing critical habitat. Camp Bullis was recently designated as a Sentinel landscape, an area where conservation, working lands, and national defense interests converge. They are anchored by at least one high-value military installation or range and

Project Output Totals:

- **31** volunteers
- **31,240** square feet of land restored or maintained
- **105** native plants added
- **1** cultural resources and historical properties affected

contain high-priority lands for the U.S. Department of Agriculture (USDA), Department of Defense (DOD), and the Department of the Interior (DOI).

“The garden will serve as a destination for groups that visit our office to learn about the Base’s natural resources. We have already had people tour the garden informally and volunteer to see and learn more about the native plants available in the area for their home plantings.” – *James Peterson*

The project transformed the barren landscape at Camp Bullis into a beautiful young arboretum, providing wildlife habitat and other ecosystem services such as shade. This project increased the aesthetics of the installation and provides critical native pollinator habitat with the hope of educating residents and visitors about pollinator species.

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United States Army



Joint Base Lewis-McChord (JBLM) | Washington Riparian Corridor Restoration at Chambers Lake

Project Dates: September 21st, 2022 ; September 22nd, 2022

Project Summary: This project focused on riparian restoration and transitional habitats for local species. Volunteers first built purple martin houses and transported them to the work site. Then, biologists from the installation assisted the volunteers by providing education on invasive species removal. Volunteers removed invasives such as Scotch broom (*Cytisus scoparius*) and Himalayan blackberry (*Rubus armeniacus*) from Chambers Lake. This savanna is important because it provides transitional habitat that allows for species flow between open prairie, deeper woodlands, and wetlands. The project incorporated the purple martin houses where volunteers erected the houses and learned about rare bird species. Biologists arranged on-site tours for volunteers showing them three different restoration sites, and discussing natural processes, management practices, and ways to remain involved through JBLM’s year-round volunteer program.

Project Output Totals:

- **21 volunteers**
- **60,000 square feet of land restored or maintained**
- **30,000 square feet of invasive species removed**
- **1 mile(s) of waterway restored or maintained**

Volunteers primarily consisted of active-duty service members, military families, biologists, and college students. They were recruited through social media (the JBLM FB page), a list-serve post through the Cascadia Prairie-Oak Partnership, intra-departmental group emails, and word of mouth from current participants in their volunteer internship program. Volunteers were educated on the importance of wildlife habitat, preserving endangered species, ecological processes, and the environmental history of the area. This project had a significant effect on two participants, who have since returned as year-round volunteers with the JBLM Installation Volunteer Corps.

“The event and continuing efforts all address one of the most overlooked aspects of habitat restoration and species conservation: transitional habitat gradients. Of these, oak/prairie savanna is the rarest in our region and supports many species of conservation concern. A focused effort to restore oak savanna on JBLM (especially along wetland edges) will go a long way to meeting species recovery goals, and this event was a great way to make some good progress and bring attention to the issue.” – *Dennis Buckingham*

JBLM was able to enhance the habitat for pollinator species and improve the riparian corridor around Chambers Lake. The removal of invasive species and the restoration of a transition boundary opens up a habitat between the prairie and wetland, allowing critical species to flow through the sensitive riparian savanna. Riparian savanna is one of the rarest habitat types in the region and the volunteer's efforts and NPLD-purchased equipment made a significant difference in the restoration efforts at Chambers Lake. In turn, this will support the species in the area providing critical habitat during transition periods.



Credit: Dennis Buckingham

Contact: Dennis Buckingham, Wildlife Specialist | 360-631-8556 | dennis.buckingham@colostate.edu

White Sands Missile Range | New Mexico
White Sands Missile Range Pollinator Garden and Backyard Habitat Manual

Project Dates: September 27th, 2022 – September 29th, 2022; October 13th, 2022; October 27th, 2022; November 23rd, 2022; December 8th, 2022; December 22nd, 2022; January 12th, 2023; January 26th, 2023; February 9th, 2023; March 9th, 2023; March 23rd, 2023

Project Summary: White Sands Missile Range was in need of a new pollinator garden after several of their plants died naturally. Volunteers planted 66 native plants totaling 22 different species. The pollinator garden provides both habitat and food to birds and insects. Due to the installation of the garden, the biodiversity of the site has increased with over 65 species of butterflies documented. Finally, Volunteers used the Epicollect phone app, which is an open-source mobile data collection tool, to help to perform community science and learn about native plants and healthy pollinator habitats.

Patricia Cutler and Marcy Scott of the Mesilla Valley Audubon Society created, reviewed, and edited a Backyard Habitat Booklet. This booklet gives region-specific plant recommendations based on local plant and bird experts. Marcy Scott created a well-curated native plant list with detailed information on the resources that each plant provides to birds and pollinators. The booklet also includes recommendations for backyard wildlife water sources, supplemental feeding of birds, and animal safety.

The expectation is that people use the booklet to create a network of backyard habitats throughout the area over time and to track this through an *Epicollect* App project where people can (voluntarily) fill out a data form on their cell phone describing the location, acreage, plant species, and other details about their own backyard habitat. Patricia and Marcy have also created a booklet template that is available to any installation or Audubon chapters who would like to create their own booklet.

Project Output Totals:

- **13 volunteers**
- **21,780 square feet of land restored or maintained**
- **6 square feet of invasive species removed**
- **66 native plants added**
- **200 pounds of trash collected and disposed**



Credit: Patricia Cutler

Contact: Patricia Cutler, Wildlife Biologists | 575-373-5767 | patricia.l.cutler.civ@army.mil

**Schofield Barracks West Range, Army Natural Resources Program | Hawaii
Native Plant Shade House and Kahanahāiki Vegetation Restoration**

Project Dates: September 24th, 2022; December 10th, 2022

Project Summary: On National Public Lands Day volunteers were led on an interpretive hike by Army Natural Resources Program (ANPRO) staff and learned about the native plants and animals that rely on the Kahanahāiki forest and the cultural history of the location. Additionally, volunteers helped to control a variety of highly invasive species and then planted native plants such as *koa*, *mamaki*, and *ohia*. This will improve the habitat for numerous native mammals, insects, and birds and also improve the health of the regional watershed.

Project Output Totals:

- **16 volunteers**
- **10,890 square feet of land restored or maintained**
- **3,229 square feet of invasive species removed**
- **93 native plants added**
- **1 structure(s) rebuilt or repaired**

On December 10th, volunteers constructed a native plant shade house. ANPRO staff led volunteers on an educational tour of their rare seed conservation lab and native plant nurseries teaching them about how to grow and maintain native plants in the region. With the help of volunteers, ANPRO was able to construct a native plant shade house complete with an irrigation system. This will provide critically needed indoor space to grow plants in a

controlled environment, allowing ANRPO horticulture staff the space and flexibility to grow more and larger native plants and providing time for plants to properly develop healthier, more established root systems in a controlled environment significantly increasing chances of survival when they are out-planted back into the forest.



Credit: Kimberly Welch

The completed activities support the Army's natural resource management goals of reducing threats to endangered species on military training lands, upholding environmental requirements, and maintaining soldier readiness. The removal of invasives and planting of native vegetation will ultimately improve the ecosystem functions of the Kahanahaiki native forest and will help to mitigate threats to the endangered plants and animals that rely on healthy native forest habitats. The native plant shade house will lead to an increase in native plant populations and improved native ecosystems, as the plants that are grown in the shade house will ultimately be planted back into the forest. Ultimately, the successful mitigation of threats to the endangered species in Kahanahaiki, a forested area within the greater Makua Military Reservation, will allow the Army to continue utilizing areas within the training corridor of Makua Military Reservation for training while preserving native habitat.

Contact: Kimberly Welch, Outreach and Volunteer Program Specialist | 808-256-0735 | kmwelch@hawaii.edu

United States Air/Army National Guard



Camp Ripley, Minnesota Army National Guard | Minnesota Camp Ripley Main Entrance Pollinator Gardens

Project Date: September 22nd, 2022; September 24th, 2022

Project Summary: Camp Ripley hosted volunteers to help build a new pollinator garden at the historic main entrance gate. Volunteers including the Boy Scouts of America, the University of Minnesota students, and numerous others removed debris and began building the garden by regrading topsoil and stabilizing the soil. Volunteers then planted 10 different pollinator gardens with native plants, shrubs, and trees. Camp Ripley staff also provided conservation education on native plants and their importance to declining pollinator populations in Minnesota.

Project Output Totals:

- ***100 volunteers***
- ***1,600 square feet of land restored or maintained***
- ***1,262 number of native plants added***
- ***1 cultural resources and historical properties affected***

This project was specifically tailored to benefit declining populations of native pollinators using gardens designed and developed by the Minnesota Board of Water and Soil Resources. Each pollinator garden combines a variety of native plants and tree species that host a variety of insects. By converting turfgrass lawns to pollinator gardens Camp Ripley was able to create a range of foraging resources, nesting substrates, and overwintering habitats for at-risk pollinator species and educate volunteers about pollinator-friendly landscaping best management practices.



Credit: Joshua Pennington

Contact: Joshua Pennington, Environmental Supervisor | 320-616-2720| joshua.a.pennington4.nfg@mail.mil

Mississippi National Guard | Mississippi World War I Training Trench Loop Trail

Project Date: September 19th, 2022; September 22nd, 2022 – September 24th, 2022; January 4th, 2023; January 25th, 2023; February 20th, 2023 – February 28th, 2023; March 14th, 2023 – March 24th, 2023; April 5th, 2023; April 6th, 2023

Project Summary: A diverse group of volunteers from the Mississippi National Guard Environmental Office, cadets from the Youth Challenge Academy, and Willow Grove Baptist Church members met at Camp Shelby to clear and flag the boundaries of a brand-new trail. They also planted dogwoods and magnolia trees. Willow Grove Baptist Church donated one of the Magnolia trees in memory of two veterans that died in the line of duty. This initial clearing day accomplished the clearing of the site and laid out the boundaries of the trail, and the ADA-accessible deck and ramp. Volunteers also received a history lesson about WWI Camp Shelby trench training.

Project Output Totals:

- **33 volunteers**
- **818 square feet of land restored or maintained**
- **7 number of native plants added**
- **3 structure(s) rebuilt or repaired**
- **1 mile(s) of trail restored or maintained**
- **1 cultural resources and historical properties affected**

In February, the Mississippi National Guard began excavating the trenches and building the trail and invited a Mississippi Department of Archives and History Archaeologist to conduct research with Southern Custom Exhibits to create four historical markers for the new trail,

three small signs and one large sign. These signs were installed by volunteers along the trail and trench system, and at the entrance of the ADA deck and ramp. These signs contain information about the 38th Division soldiers that constructed the original trenches in 1917



and document the assistance of British and French officers who instructed the US soldiers. It also informs viewers on the types of trenches along the trail such as traverse trenches, parapet and Parados, and dugout trenches. Finally, in March and April with the assistance of the Department of Public Works, the construction of the ADA-accessible deck and ramp was completed allowing for persons with disabilities to enjoy the trail and natural recreational amenities at Camp Shelby.

Credit: Rita McCarty

“WDAM, the local news channel, came out and covered the Public Lands Day event...The deck and ramp are better than I expected and I'm so excited for the trail can be used now for recreation, history lessons, or just sitting out in nature to enjoy the birds and forest.” – Rita McCarty

The trail will link a part of the post’s rails to trails project with a series of historic World War I training trenches.

Contact: Rita McCarty, Cultural Resources Program Manager | 601-558-2596 | rita.d.mccarty.nfg@army.mil

Camp Grayling | Michigan Camp Grayling NPLD 2022

Project Date: September 22nd, 2022

Project Summary: The Camp Grayling project highlighted Michigan’s native plants and established a native pollinator demonstration garden and gravel trail. Camp Grayling engaged AmeriCorps volunteers and local volunteers to plant native trees that will provide valuable pollinator habitat. The diversification of tree and native plant species will aid in making the conditions on the installation more resilient to climate change, benefit wildlife as well as improve the aesthetics

Project Output Totals:

- **10 volunteers**
- **1,750 square feet of land restored or maintained**
- **372 number of native plants added**

of the area. The event also provided a time to create awareness of installation conservation efforts.

The project improved natural resources on the site by increasing species diversity and vegetative cover that will have direct positive impacts on wildlife including insects and pollinators. Participants who were involved in the tree planting were provided with a sense of belonging within the Camp Grayling community and have provided aesthetic value to the complex. These planting practices will have a long-term environmental impact at the site by reducing erosion, flooding, inundation, and filtering pollutants from stormwater runoff. This is the first year Camp Grayling has participated in the NPLD DoD Legacy Award.

Contact: Matt Kleitch, Natural Resource Specialist | 989-344-6175 | matthew.e.kleitch.nfg@army.mil

United States Navy



Naval Submarine Base New London | Connecticut Admiral Fife Naval Recreation Area Natural Resource Enhancement and Pollinator Protection

Project Dates: September 20th, 2022; September 21st, 2022; September 23rd, 2022

Project Summary: This project focused on the removal of invasive species, the creation of a pollinator garden, and the planting of native vegetation, providing beautifully restored habitats for wildlife and pollinators. Volunteers used equipment to remove non-native plants and invasive species from the project location. The new pollinator garden at Admiral Fife Recreation Area (AFNRA) was established using nine different native species to ensure that there are blooms from early spring to late

fall and that there are plants for a variety of pollinators, including bees, beetles, moths, and butterflies. Finally, volunteers planted native trees along the perimeter of the garden, planting over a dozen eastern red cedar trees enhancing the health of natural vegetation communities, wildlife species populations, and suitable habitats. This is the first year Naval Submarine Base New London has participated in the NPLD DoD Legacy Award.

Project Output Totals:

- **48 volunteers**
- **15,000 square feet of land restored or maintained**
- **10,000 square feet of invasive species removed**
- **495 native plants added**



Credit: Jane Urban

Contact: Jane Urban, Natural Resource Manager | 860-694-5164 | jane.m.urban.civ@us.navy.mil

Joint Base Pearl Harbor Hickam NAVFAC Hawaii | Hawaii Loko Paaiau Fishpond Natural and Cultural Resources Restoration

Project Dates: September 24th, 2022; April 22nd, 2023

Project Summary: NAVFAC Hawaii located in Hickam Field, Hawaii hosted volunteers at a culturally significant site to protect and preserve Loko Paaiau, an ancient Hawaiian fishpond. Loko Paaiau is an ancient Hawaiian fishpond that dates over 400 years. It is one of the three remaining fishponds around Pearl Harbor that has survived. Over 22 fishponds once existed at Pearl Harbor, but development and neglect have reduced the number of fishponds to three. This project brought together military families and community members to clear invasive vegetation from the fishpond, remove garbage in the fishpond and surrounding area and install lava pavers for the floor of the hale which was built in part by previous funding from this grant. Hawaiians built specific hale (houses) for many uses such as gathering, cooking, eating, sleeping, and storing canoes.

Project Output Totals:

- **60 volunteers**
- **50 square feet of land restored or maintained**
- **35 square feet of invasive vegetation removed**
- **1 mile(s) of trail restored or maintained**
- **20 pounds of trash collected and disposed**
- **1 cultural resources or historical properties affected**

The installation of the lava pavers, which is a traditional Hawaiian architecture style, around the fishpond will enable volunteers' safe access to the fishpond. The project will provide a place for Navy families and community members to gather and learn about Hawaiian culture. Additionally, the hale will be used by both DoD veterans and local community and school groups for educational programs.

Contact: Jeffrey Pantaleo, Cultural Resources Manager | 808-471-4945 | jeffrey.j.pantaleo.civ@us.navy.mil

Naval Station Great Lakes | Illinois
Naval Station Great Lakes Pollinator Garden and Tree Planting

Project Dates: September 20th, 2022; October 5th, 2022; March 13th, 2023; April 6th, 2023; April 18th, 2023

Project Summary: This is the first year Naval Station Great Lakes has participated in the NPLD DoD Legacy Award. Military members, families, civilians and local volunteers celebrated National Public Lands Day at Naval Station Great Lakes by planting a pollinator garden and native tree species. Participants planted an 800 square foot garden with native shrubs and trees near the Navy Gateway Inn and Suites with native pollinator-friendly plant species, laid mulch, and installed signage.

The pollinator garden was needed to provide educational opportunities, focusing on pollinators and their habitat and enhancing habitat within developed areas at the installation. The pollinator garden also will help to re-establish a population of native plant species, protect shoreline areas, reduce erosion, and enhance habitat for federally and state-protected species.

Establishing pollinator gardens will also provide a future outdoor recreational opportunity for volunteers and base personnel to visit the garden and observe native plants blooming each year and view the variety of pollinator insects utilizing the garden. Furthermore, climate adaptation is key to conserving resilient ecosystems and reducing climate-related vulnerabilities. This project created and enhanced natural carbon sequestration sinks through tree plantings, beach grass plantings, and seeding ravine slopes that increase forest cover and conserve soil.

Project Output Totals:

- ***35 volunteers***
- ***13,785 square feet of land restored or maintained***
- ***2,000 square feet of invasive vegetation removed***
- ***623 native plants added***

“This funding allowed us to educate the base community about why replacing trees is important and has kick-started interest in developing a formal replacement program.”
– *Taylor Bozman*

This project engaged a variety of volunteers through both hands-on and educational activities. Additionally, these volunteer days sparked interest in base personnel in the overall goals of the natural resources program and other initiatives they are working on. These events demonstrated the importance of stewardship and received support from base leadership to complete similar projects in the future.



Credit: Taylor Bozman

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Naval Air Station Kingsville | Texas Native Pollinator Garden Installation at Visitor's Center

Project Dates: September 29th, 2022; April 22nd, 2023

Project Summary: This is the first year Naval Air Station Kingsville (NASK) has participated in the NPLD DoD Legacy Award. NASK hosted volunteers from the Employee Morale Association. In September, volunteers participated in a native pollinator garden cleanup and educational tour. This NPLD event provided the opportunity to teach volunteers about natural resource conservation concerns such as water scarcity, pollinator declines, and invasive species, and present positive changes they can make beginning with native plant gardening. Additionally, they discussed plant morphology, garden design, and pollinators. The event also completed the installation of three new gardens. This includes weeding, removing non-native shrubs, and replacing them with drought-tolerant pollinator plants. Participants were also introduced to local native plants, drip irrigation, and installation. The flowers, shrubs, and trees in these gardens will thrive to support native birds, insects, and other pollinators that depend on native species for a healthy ecosystem. This event allowed people to come together to work on environmental-focused activities to make a difference and actively support the community and environmental conservation.

Project Output Totals:

- **50 volunteers**
- **11,000 square feet of land restored or maintained**
- **2,250 square feet of invasive vegetation removed**
- **22 native plants added**
- **1 pound(s) of trash collected and disposed**

Finally, in April, NASK hosted an Earth Day event to provide a presentation on the principles of propagation for stem cutting, as well as soft and semi-hardwood cutting. The workshop was held at the Auto Center Garden for NASK and virtually on Zoom for Nueces Master Gardener members.

“Since September, the three newly established native plant and pollinator gardens have attracted species such as the Monarch butterfly, the American bumble bee, as well as other extremely rare butterflies. These gardens have already endured an extended freeze, flooding, and extreme heat.” – *Abigail Rosenberg*

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Results and Discussions

Over 470 volunteers took part in over 440 hours of various natural and cultural resource improvement activities that were offered at the 14 funded DoD Legacy Program installations resulting in a \$1.4 million monetary value of volunteer work. Many DoD Legacy Program sites organized natural resource rehabilitation projects to improve habitat for pollinator species, removed invasive plants, reduced environmental degradation caused by human use, enhanced waterways, reduced erosion, maintained trails, planted native trees and wildflowers, and more. The cultural resource activities included the maintenance of a traditional Hawaiian structure, a Hawaiian forest restoration project in the habitat of Kahanahaiki and hosting educational programming around the cultural and environmental history of their local communities.

2022 DoD Legacy Program Sites

<u>United States Air Force</u>	<u>Amount Awarded</u>
Beal Air Force Base California	\$12,993.13
Wright-Patterson Air Force Base Ohio	\$4,512.80
Hurlburt Field Air Force Base Florida	\$545.89
Joint Base San Antonio Texas	\$12,000.00
<u>United States Army</u>	<u>Amount Awarded</u>
Joint Base Lewis-McChord Washington	\$20,000.00
White Sands Missile Range New Mexico	\$19,350.00
Army Natural Resources Program Hawaii	\$7,332.79
<u>United States Army/Air National Guard</u>	<u>Amount Awarded</u>
Camp Ripley Minnesota	\$19,800.00
Mississippi National Guard Mississippi	\$11,720.00
Camp Grayling Michigan	\$11,200.00
<u>United States Navy</u>	<u>Amount Awarded</u>
Naval Submarine Base New London Connecticut	\$9,785.34
NAVFAC Hawaii Hawaii	\$10,992.82
Naval Station Great Lakes Illinois	\$9,942.00
Naval Air Station Kingsville Texas	<u>\$9,861.00</u>
TOTAL	\$160,035.77

2022 DoD Legacy Award Project Output Totals by the Numbers:

523,666 square feet of land restored or maintained

3,606 native plants added

321 pounds of trash collected and disposed

371,223 square feet of invasive vegetation removed

1 miles of waterway restored or maintained

4 miles of trail restored or maintained

7 cultural resources or historical properties affected

5 installation structures and facilities built, rebuilt, or repaired

Conclusion

The overall purpose of the Award is to restore public lands with the aim of conservation for future generations, military members, and their families. This year's NPLD accomplished the restoration and conservation of public lands through numerous different projects including but not limited to the installation of pollinator gardens, trail building and maintenance, riparian corridor habitat enhancement and the preservation of cultural sites such as World War I trenches. These activities care and protect environmental and cultural resources so that they can persist for future generations of civilians and military members.

Military Mission Benefits: NEEF partnered with the DoD Legacy Program for the 24th year to offer funding each for NPLD-related service projects at 14 sites. The Awards strengthen environmental and cultural resource enhancement activities as well as occupational health at participating military installations. By advancing environmental stewardship while focusing on cultural restoration projects, the military takes an active, hands-on role in caring for their environment in a manner that involves DoD members, their families, retirees, and veterans. Through this partnership, NPLD provides an opportunity for military personnel to lead stewardship efforts on installations. These efforts also directly benefit the participants by being physically active outdoors and building camaraderie with one another, while also building relationships with the community. By inviting people to learn about these lands and their cultural elements, the military can strengthen their relationship with neighboring residents, businesses, and organizations.