Department of Defense
Legacy Resource Management Program

Project No. 09-086

National Public Lands Day

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DEPARTMENT OF DEFENSE
LEGACY RESOURCE MANAGEMENT PROGRAM (09- 086)

National Public Lands Day 2009

The Department of Defense provides funds to the National Environmental Education Foundation (NEEF) for National Public Lands Day (NPLD) projects on military lands open to the public for recreation. Since 1999, National Public Lands Day has received $1,248,172.60 through the Legacy Resource Management Program. In 2009, National Public Lands Day received a total of $208,477.16 from Legacy. Of this amount, $171,594 was allocated to sites for materials and supplies. NEEF had carryover funding from 2008, for a total of $182,108.61 was distributed to installations for materials and supplies for various NPLD projects. The Legacy funds are used to improve Department of Defense lands through various natural and cultural resource improvement activities.

On September 26, 2009, 150,000 volunteers completed over 2,582 projects to improve parks and other public lands in all 50 states, the District of Columbia and U.S. territories. NPLD volunteers contributed an estimated $14 million in public land improvements by removing 900,000 lbs of trash; collecting 20,000 lbs of invasive plants; building and maintaining 1,320 miles of trails; and planting 100,000 trees, shrubs and other native plants. Many NPLD events included an environmental or natural resource education component to teach volunteers about land stewardship.

In 2009, NPLD volunteers focused on protecting our nation's water resources. Site managers educated volunteers about estuaries, rivers, oceans, drinking water, fish, groundwater, watersheds and water safety. Many Legacy Resource Management Program sites also organized work projects to improve habitat for pollinator species such as such as bees, birds, bats and insects.

The National Environmental Education Foundation received 62 applications for Legacy awards of up to $6,500 each for National Public Lands Day 2009 projects. In July, NEEF notified 45 sites that were selected to receive Legacy Resource Management Program awards and began the process of sending funding to those sites. Supplementary Legacy Resource Management Program funding was identified and an additional six sites were notified that they were awarded funding in August. The sites awarded with Legacy Resource Management Program funding included 16 Army, 9 Army National Guard, 11 Air Force, 5 Marine Corps and 10 Navy sites.

On National Public Lands Day 2009, over 3,000 volunteers took part in various natural and cultural resource improvement activities at 51 DoD Legacy Resource Management Program sites. Natural resource activities performed by volunteers included improving habitat for pollinator species and other wildlife; removing trash and invasive plants; restoring rivers and streams, wetlands, dune and coastal habitats; constructing trails and bridges; planting native trees, shrubs, wildflowers and other vegetation; installing interpretive and educational signage; and educating the public about environmental and natural resource issues.

Cultural resource activities performed by volunteers included restoring historic and culturally significant structures such as a pioneer cabin at the US Air Force Academy in Colorado and historic military cemeteries at Fort Stewart in Georgia.

LEGACY SITES IN 2009

Site	Amount Awarded
Army	
Camp Atterbury Joint Maneuver Training Center, Indiana	$3,187.98
Camp McCain Training Center, Mississippi	$4,147.00
Fort Dix, Laurel Pond, New Jersey	$3,000.00
Fort Drum, New York	$ 760.00
Fort Huachuca, Heritage Park, Arizona	$2,100.00
Fort Leavenworth, Kansas	$2,200.00
Fort Lee, Virginia	$5,000.00
Fort Lewis, Washington	$5,495.00
Fort Stewart, Georgia	$1,992.00
Kahanahaiki, Makua Military Reservation, Hawaii	$1,967.00
Letterkenny Army Depot, Pennsylvania	$2,176.75
MTC Fort Pickett, Virginia	$3,744.20
Pohakuloa Training Area, Army Garrison, Hawaii	$4,931.34
Umatilla Chemical Depot, Oregon	$5,000.00
U.S. Army Kwajalein Atoll, Republic of the Marshall Islands	$4,500.00
Yakima Training Center, Washington	$4,000.00
Army/Air National Guard	
Arden Hills Army Training Site, Minnesota	$1,581.00
Biak Training Center, Oregon	$4,783.00
Camp Dawson Army Training Site, West Virginia	$5,026.85
Fort Custer Training Center, Michigan	$5,000.00
Fort McClellan Army National Guard Training Center Pelham Range, Alabama	$2,078.67
McCrady Training Center, Fort Jackson, South Carolina	$4,000.00
Minnesota Army National Guard, Camp Ripley, Minnesota	$500.00
Pennsylvania National Guard Military Museum, Pennsylvania	$5,000.00
Sparta Training Area, Illinois	$5,000.00
Air Force	
Andrews Air Force Base, Maryland	$1,890.00
Beale Air Force Base, California	$3,000.00
Cape Canaveral Air Force Station, Florida	$4,850.00
Fairchild Air Force Base, Washington	$4,000.00
Lackland Air Force Base, Texas	$5,000.00
Luke Air Force Base, Barry M. Goldwater Range East, Arizona	$3,200.00
Malmstrom Air Force Base, Montana	$1,146.00
Patrick Air Force Base, Florida	$5,021.20
Randolph Air Force Base, Canyon Recreational Area, Texas	$4,875.00
United States Air Force Academy, Colorado	$2,800.00
Vandenberg Air Force Base, California	$4,600.00
Navy	
Charleston Naval Weapons Station, South Carolina	$5,000.00
Fallbrook Naval Weapons Station, California	$5,000.00

Greenbury Point, Naval Academy, Annapolis, Maryland	$3,000.00
NASO Dam Neck Annex, Virginia Beach, Virginia	$5,000.00
Naval Air Station Oceana, Virginia Beach, Virginia	$1,800.00
Naval Air Station, Truman Annex, Key West, Florida	$4,000.00
Naval Submarine Base New London, Admiral Fife Naval Recreation Area, Connecticut	$650.00
Naval Support Facility Carderock, Maryland	$3,000.00
Naval Weapons Station Seal Beach, California	$5,000.00
NIOC Sugar Grove, West Virginia	$5,474.00
Marine Corps	
Camp Pendleton, California	$3,240.00
Marine Corps Air Ground Combat Center, 29 Palms, California	$6,500.00
Marine Corps Base Quantico, Virginia	$1,097.12
Marine Corps Base, Camp Lejeune, North Carolina	$3,812.50
Marine Corps Recruit Depot, Parris Island, South Carolina	$1,982.00
Total	**$ 182,108.61**[1]

[1] Note that this amount includes some funds carried over from the previous year (2008). Also, military installations did not spend the entire amount designated for Legacy Awards 2009. We will carry over some funding for the NPLD Legacy Award 2010.

2009 National Public Lands Day
Legacy Site Accomplishments

United States Army

Camp Atterbury Joint Maneuver Training Center, Indiana
Natural Resource Project: Invasive Plant Removal

Camp Atterbury successfully tackled an invasive species eradication project during National Public Lands Day. With the help of 21 volunteers, the camp removed a problematic invasive plant, Japanese Knotweed, which had taken over an entire area along an important roadside.

Site managers led volunteers in trimming 3,500 square feet of Japanese Knotweed. Meanwhile the remaining volunteers collected the trimmings, filling over 100 bags. Once this phase of the project was complete, trained members of Cape Atterbury staff mixed and applied an herbicide solution to the area, stressing the plants and killing the roots to prevent re-growth.

Contact: Deborah L. McNeil, (812) 526-1499 ext. 2459

Camp McCain Training Center, Mississippi
Natural Resource Project: Native Vegetation Planting

Pollinator Project

Camp McCain has 13,000 acres of which 12,500 are open to the public for bird watching, nature walks, recreation, hunting and fishing. On National Public Lands Day site managers led volunteers in several projects to plant trees and ground covers such as wildflower and clover in and around Camp McCain. Planted tree species included apple, cherry, plum, peach and oaks. These tree species and other ground cover plants enhance the habitat of the abundant wildlife on base, including birds, bees, insects, bats, deer and turkey. The plants will also help to mitigate some of the camp's erosion problems. Volunteers included several local Boy Scout troops.

Contact: Maj. Ron Ford, (662) 294-0122

Fort Dix, Laurel Pond, New Jersey
Natural Resource Project: Erosion Control, Planting, Trail Work, Trash Cleanup and Signage Installation

Volunteers at Fort Dix celebrated National Public Lands Day by making improvements around Laurel Pond, located within the fort. The 110 volunteers helped clean up almost a mile of trail around the pond, raking and removing 800 pounds of trash and installing informational signs for visitors. Additionally, volunteers worked on erosion control measures along the shore of the pond and planted seven trees and 783 native wetland plants, grasses and shrubs.

Contact: Roger Smith, (609) 562-2040

Fort Drum, New York
Natural Resource Project: Pollinator Garden Planting[2]
Pollinator Project
****Project Date: June 19, 2010****

The Fort Drum installation has recently grown with many new soldiers and their families moving in and more open space being converted to housing. This increased development has reduced the amount of natural habitat available for pollinators and other wildlife. In response, site managers will involve local volunteers in building the foundations for six pollinator gardens outside several community centers on Fort Drum. Volunteers will prepare the soil for 12 x 12 foot beds and will plant floral species that are beneficial for a variety of pollinators. Site managers will encourage volunteers to assist with the long-term care of the gardens by weeding and watering. The central locations of the gardens will provide many opportunities for residents to enjoy them and learn about pollinator species.

Contact: Ray Rainbolt, (315) 772-9636

Fort Huachuca, Heritage Park, Arizona
Natural Resource Project: Trail Maintenance
****Project Date: October 3, 2009****

National Public Lands Day at Fort Huachuca focused on Heritage Park, a natural area within the fort. Throughout the day, 35 volunteers worked to widen and improve two miles of trail. Using weed eaters, they cut back overgrown vegetation on the trail and also removed 200 pounds of trash. Once the trails were widened, the volunteers spread mulch on the trails to prevent the weeds from quickly growing back and lined the edge of the trail with rocks. Once the improvement work was done on the trail itself, volunteers helped to remove two broken signs and added a total of five new educational signs.

Contact: Chad Dean, (520) 533-9541

[2] Evaluation not yet submitted due to later event date.

Fort Leavenworth, Kansas
Natural Resource Project: Trail Construction

Fort Leavenworth still uses the tools and equipment provided by the Legacy Resource Management Program from previous years to build and maintain an extensive trail system on a regular basis. They have welcomed over 150 volunteers who have assisted with trail maintenance during the past year.

This year Fort Leavenworth purchased an additional five mountain bikes and associated equipment to be available for bicycle riders on the reservation. Site managers have found that a major part of trail maintenance involves regular use. Without regular use, the trail is easily overcome by vegetation. Site managers at Fort Leavenworth also purchased several hundred trail maps to provide to bike riders, walkers and horse riders so that they may enjoy and navigate the trail system. The maps will be distributed through a local bike shop.

Contact: Matt Nowak, (913) 684-8979

Fort Lee, Virginia
Natural Resource Project: Invasive Plant Removal, Trail Work, Signage Installation and Native Planting
Pollinator Project

Site managers at Fort Lee led volunteers to install several pollinator gardens on the fort on National Public Lands Day. Twenty volunteers helped with the construction and installation of one 4,000 square-foot and two 1,000 square-foot raised pollinator gardens, including the application of topsoil and mulch. Around these gardens, volunteers planted approximately 40 additional shrubs and trees to serve as habitat for butterflies. In two of the gardens, volunteers planted 700 native wildflowers. These wildflowers are known to be preferred species for bees, butterflies, and hummingbirds. In the remaining garden volunteers planted a mixture of red and white clover, specifically to attract bees.

Contact: Dana Bradshaw, (804) 734-5080

Fort Lewis, Washington
Natural Resource Project: Wildlife Habitat Improvement
Pollinator Project
****Project Date: September 27, 2009****

National Public Lands Day at Fort Lewis involved the construction of 20 bat houses and 22 bee blocks. During the event, 14 committed volunteers worked hard to fully complete the bee blocks, but 11 of the bat houses were only partially completed due to time limitations. Fort Lewis has plans to complete those structures during the remaining fall months with the help of volunteers.

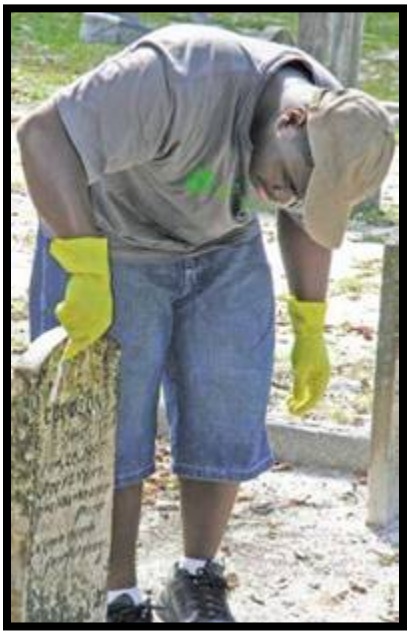
Materials were also purchased to refurbish an old church steeple that became available to Fort Lewis during this past summer. Their original intent was to purchase all new materials to construct a tower, but they found that the structure was already ideally suited for bats. By re-roofing the steeple and constructing a foundation for it to rest on, they were able to lengthen the useable lifespan of the "bat belfry" and reuse a structure that otherwise would have been trashed. The bulk of the work was completed by volunteers who removed all of the old, worn-out shingles and scraped it clean.

Contact: David Clouse (253) 967-3474 and Jim Lynch (253) 966-6440

Fort Stewart, Georgia
Cultural Resource Project: Historic Military Cemetery Restoration

On National Public Lands Day, Fort Stewart volunteers improved Bragg Cemetery. Eleven volunteers cleaned headstones at Bragg Cemetery. The cleaning effort contributed to preservation of the headstones and a much-improved appearance of the cemetery. The event provided volunteers a closer sense of connection to Fort Stewart's past, as well as an opportunity to appreciate the emphasis the military places on its stewardship of the cemeteries and other historic and natural resources. Informational signage will be installed at a later date in November.

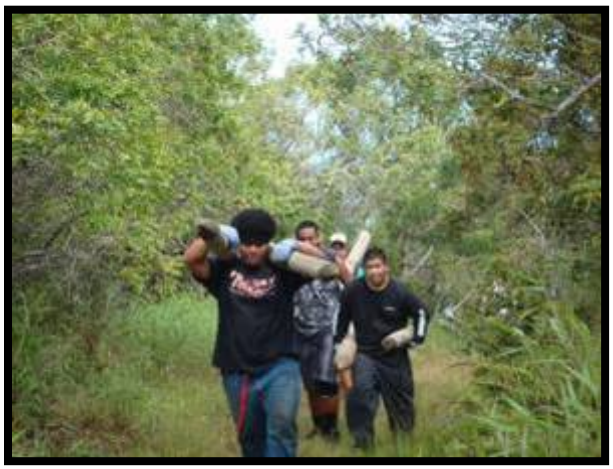
Contact: Ashley Cain, 912-767-1402



Kahanahaiki, Makua Military Reservation, Hawaii

Natural Resource Project:
Native Vegetation Planting and Invasive Plant Removal

Pollinator Project



For this National Public Lands Day project, 17 volunteers and four O`ahu Army Natural Resource staff joined forces to prepare a site in the forest for a native plant field nursery and a water catchment. All participants carried tools and supplies during the short hike to the work site in Kahanahaiki – a forested gulch within Makua Valley.

The largest number of individuals cleared 500 pounds of invasive weeds, including Strawberry guava, Christmas berry and Molasses grass from the area where the field nursery's plant bench and water catchment would be constructed. A smaller group of volunteers, made up primarily of Boy Scouts, helped construct the rain catchment system and fence-crossovers. The rain-catchment design was part of a scout's project that will go towards helping him earn his Eagle Scout rank. The fence-crossovers were necessary additions to the project to provide easy access for both staff and volunteers in order to ensure long-term maintenance of the native plant field nursery in the future.

Contact: Kim Welch, (808) 656-7641

Letterkenny Army Depot, Pennsylvania

Natural Resource Project: Native Vegetation Planting and Seeding

Pollinator Project

Over a period of 10 hours, 20 volunteers planted several acres of native grass and flower mixes along roadways and in other areas that had been cleared of 400 pounds of non-native invasive plants. Volunteers helped prepare the planting areas by removing any small stumps and brush debris. They then hand-seeded the areas with 225 pounds of seed. The native plantings will benefit pollinator species for years to come. Members of the Letterkenny Rod and Gun Club were among the participants.

Contact: Craig Kindlin, (717) 267-8832

MTC Fort Pickett, Virginia

Natural Resource Project: Wildlife Habitat Improvement

Pollinator Project

The Virginia Department of Military Affairs Environmental Office partnered with nine scouts and their leaders from local Girl Scout Troop 138 to construct and install 20 bat houses along the Joy Nature Trail on MTC Fort Pickett. After camping out the night before, the girls started their construction project on September 26th. The Scouts first listened to staff discuss their work and environmental career possibilities. The staff then described the bat house project and educated the girls about bats.

As part of the construction process, the girls caulked and painted the bat houses (which were pre-constructed but not finished). The girls then carried lumber from a holding bay to the work area. This was a real team effort as the vertical support posts were 16 feet long and heavy! DPW carpentry staff cut cross beams and drilled holes the previous week. The girls had to determine which pieces matched each support beam and gather necessary nuts, bolts and washers to secure the lumber. Once the support poles were assembled, the girls measured and marked the exact locations where the bat houses would be secured to the poles. The girls finished their houses by securing a piece of netting to the base to assist bats in crawling into the house.

While lunch was being gathered and supplies transported to the Joy Nature Trail, the girl scouts received a lesson on water sampling. Mr. Dave Short showed the troop members water sampling equipment and explained why and how samples were taken.

Everyone re-grouped at Joy Nature Trail for the afternoon. DPW staff had coordinated the week prior to auger holes at select locations for the bat houses. The troop started by cleaning out the auger holes and learning about ideal bat house locations. Then came the heavy work of erecting the bat houses. The team moved efficiently and effectively through the entire site.

Once the bat house project was complete, the troop participated in a nature walk along the trail with staff member Amy Haynes. The girls learned about forest cover types, animal habitats, military uses of the land and basic land management. The group stopped at set points and talked about how bats might use different locations for hunting and habitat.

The project managers had first proposed to erect 20 bat houses. While 20 bat houses were purchased and prepped, it became evident that all 20 could not be installed in one day. Instead, eight houses were placed, and the remainder was later installed by staff.

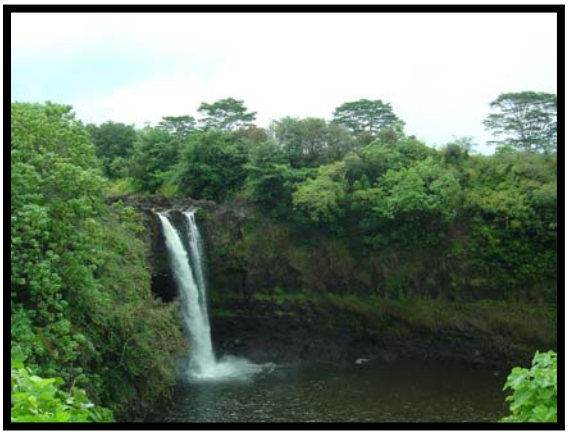
Contact: Gary Williamson (434) 292-6401 or Amy Haynes (434) 298-6416

Pohakuloa Training Area, Army Garrison, Hawaii

Natural Resource Project:
Native Vegetation Planting and Wildlife Habitat Improvement[3]

Pollinator Project

****Project Date: December 2009 or January 2010****



Before ranching became the predominant land use in the area, a fairly contiguous forest once existed in the vicinity of the U.S Army Garrison in Hilo, Hawaii. As the forest was cut, trampled, browsed and repeatedly burned, the microclimate of the area began to change. Moisture became less frequent and the native fauna and flora rapidly disappeared.

If environmental staff can begin to re-establish a native forest, the site may see the return of some semblance of the previous structure and function and without the current use of supplemental watering. This may translate into the return of populations of some of the common native bird species, along with a diverse group of trees, shrubs and grasses.

For their NPLD event, volunteers- including the Big Island Bird Hunters- will be planting 1,000 endemic and indigenous trees, shrubs and grasses to begin re-establishing a native forest. Volunteers will install a bird watering unit in the vicinity of the future planting site which will provide recreational and hunting opportunities for residents. The Bird Hunters, along with scout troops from Hilo will then install a hog wire fence in order to create an out-planting area that will keep out ungulates. Once the fence has been constructed, groups of volunteers will begin to prepare the site for planting.

The project, which was originally scheduled for September 2009, was delayed due to staffing issues and problems acquiring a Historic Preservation permit. It is re-scheduled for December 2009 or January 2010.

Contact: Peter Peshut, (808) 969-3340

Umatilla Chemical Depot, Oregon

Natural Resource Project: Wildlife Habitat Improvement

****Project Date: August 24-28, 2009****

Burrowing Owls were last seen at the Wanaket Wildlife Area and the Depot in 2001. In an effort to re-establish the species in the area, site managers organized a 5-day “Burrow Blitz” event where 37 volunteers worked an average of 14 hours to install artificial nest burrows for the owls. The volunteers also completed a visual walking survey to count Coyote and Badger dens, Burrowing Owl nest sites and Pocket Gopher mounds. The underlying objective was focused on assessing and re-establishing these key wildlife species on the Depot and the Wanaket Wildlife Area.

[3] Evaluation not yet submitted due to later event date.

Teams of volunteers installed 35 artificial owl burrows in pre-determined locations based on habitat suitability and topographic conditions. Site managers intentionally put the artificial burrows in during late August, as the young from nests earlier in the year are dispersing at this time, and new burrows were quickly found by the owls. This gave the owls a chance to orient to the new array of nest sites in advance of the upcoming 2010 nesting season. The site now has a network of 49 artificial burrows on the Depot (enough to support 22 pairs of owls) and four artificial burrows at the Wanaket Wildlife Area.

Volunteers conducted survey transects on foot starting from randomly selected points across the Depot, totaling 44.5 acres. Surveyors counted all badger and coyote dens, owl burrows and pocket gopher mounds within their transect areas. GPS locations were made at the beginning and end of each transect and at all dens/burrows. All observations were recorded on field data sheets and later entered into a database for analysis.

Currently there are very few badgers present on the Depot as a result of 'by-catch' under a now-discontinued coyote control program. Badgers are the main species that create the burrows that Burrowing Owls need for nesting. The main food of badgers is pocket gophers; thus, staff wanted to assess the relative number of pocket gophers on the Depot to determine if there were enough to support a badger reintroduction effort. The answer was a definite 'yes!' as surveyors counted 10,244 pocket gopher mounds along their 87 transects. There is ample food for a badger reintroduction program, which staff now hopes to undertake. With additional badgers, the stop-gap support measure of installing and maintaining artificial burrows for owls will not be necessary.

Event partners and participants included the US Army; US Fish and Wildlife Service; Global Owl Project; Vista Engineering, LLC; Research Management Consultants, Inc.; Pendleton Bird Club; Confederated Tribes of the Umatilla Indian Reservation; and two local Boy Scouts troops.

Contact: Don Gillis, (541) 564-5420

Yakima Training Center, Washington

Natural Resource Project: Native Vegetation Planting and Seeding

Pollinator Project

Yakima has one of two remaining populations of greater sage-grouse in the state of Washington, a state-threatened species and federal candidate species currently under a status review for further listing. Several critical life stages (pre-laying hens, chicks) are very dependent on pollinator species, both insect and plants, for survival.

Sixteen volunteers and installation staff, including the Commander, planted a total of 800 plants of 20 different native species. They also seeded a five-acre area with 262 pounds of native seed to enhance pollinator species and restore fire-impacted habitat. This project enabled the installation to propagate these important native plant species and facilitate future sage-grouse habitat enhancement projects. The event also provided an opportunity to promote awareness of the pollinator decline in this shrub-steppe habitat and greater sage-grouse conservation efforts on Yakima.

The greenhouse that the Legacy/NPLD grant funded did not arrive in time for adequate site preparation. The greenhouse will be erected at a later date after the site preparation will be completed.

The project was offered as partial fulfillment of requirements to acquire Advance Hunter status for those who have an interest in the Washington Department of Wildlife (WDFW) Advance Hunter Education program.

Contact: Colin Leingang, (509) 577-3860

U.S. Army Kwajalein Atoll, Republic of the Marshall Islands

Natural and Cultural Resource Project: Native Plant Nursery Development[4]

Pollinator Project

****Project Date: September 28, 2009****

Kwajalein is a National Historic Landmark for a WWII battle. Kwajalein Island and Roi-Namur Island have extensive WWII Japanese concrete defensive structures that played significant roles in the battle. Kwajalein Island suffers from a lack of biodiversity in its native tree population. About 80-90% of the trees on the island are coconut palms, which require a great deal of trimming and maintenance.

On National Public Lands Day, site manager and volunteers created a nursery of native and culturally useful plants, bushes and trees to add native diversity to the island to reduce erosion and the amount of vegetation waste. Some of these plants are also useful to create salt-spray and erosion control shields to retard the degradation of the historic structures near the shoreline. Volunteers planted native species, including breadfruit trees, Pandanus, Pemphis, Pisonia and Beach Heliotrope. Some of these native trees such as breadfruit and pandanus have added value as fruit bearers.

First volunteers gathered seeds, sprouts and saplings from nearby islands in the atoll. Then they placed these seeds, sprouts and saplings in planters in a designated area of the USAKA public gardens. Now site managers have developed an ongoing program of caring for the nursery until the plants are mature enough to be transplanted elsewhere on the island.

Contact: Anthony Hoover, (805) 355-5449

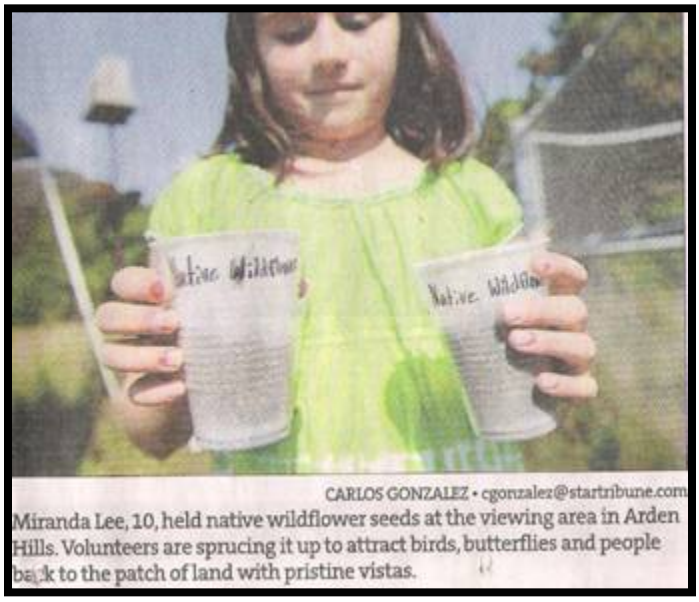
[4] Evaluation not yet submitted.

U.S. Army and Air National Guard

Arden Hills Army Training Site, Minnesota

Natural Resource Project:
Native Vegetation Planting and Wildlife Habitat Improvement

Pollinator Project



CARLOS GONZALEZ • cgonzalez@startribune.com

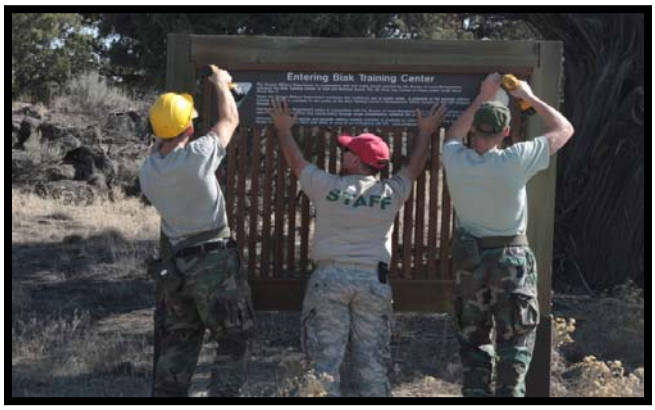
Miranda Lee, 10, held native wildflower seeds at the viewing area in Arden Hills. Volunteers are sprucing it up to attract birds, butterflies and people back to the patch of land with pristine vistas.

Environmental supervisors at Arden Hills Army Training Site worked to increase the diversity of birds and attract insect and pollinator species to the Lexington Avenue Public Viewing Area. Twenty volunteers removed 20 cubic yards of Knapweed and other non-native vegetation from the viewing area. In the cleared space, they planted 120 Pasque flower plants, 30 Mountain Mint plants, spread three pounds of mixed wildflower seeds and planted 3.5 pounds of seeds of other native plant species including Indian Grass, Milkweed, Butterfly Weed and Joe Pieweed.

In addition to the planting project, an Eagle Scout applicant worked with 30 volunteers, including a local Boy Scout troop, to remove two old duck houses from the viewing area. They then erected a Purple Martin birdhouse to prepare for the spring arrival of the species.

Contact: Mary Lee, (651) 634-5229

Biak Training Center, Oregon
Natural Resource Project:
Trail Construction, Signage Installation and Trash Removal



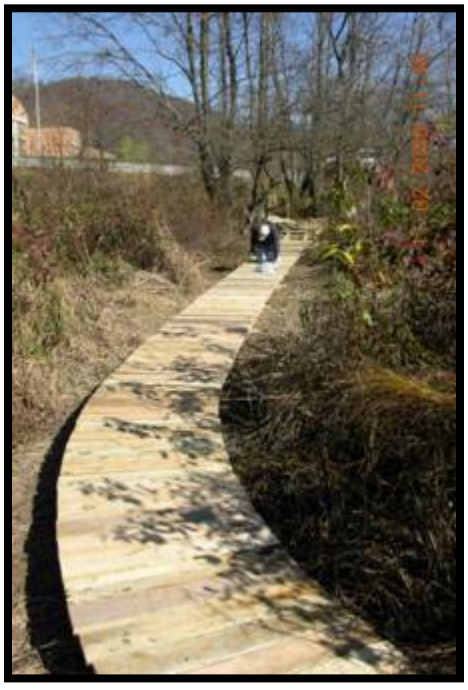
Site managers at Biak Training Center set out to complete several projects on National Public Lands Day this year. With the help of 150 volunteers who put in eight solid hours of hard work, they had great success with each of their endeavors.

Volunteers removed 1,056 feet of fence and installed six informational kiosks to be used by military members and the public. They constructed 83 fence posts over a five kilometer area to identify sections that are off-limits to hikers and joggers, and they removed damaged road signage along this same area. Additionally, trash clean up at the Mayfield Pond, a popular recreation area for the military and civilians, resulted in the removal of 3,320 pounds of trash.

Contact: Robin Howard, (503) 584-3852

Camp Dawson Army Training Site, West Virginia
Natural Resource Project:
Trail Work, Signage Installation and Wildlife Habitat Improvement
Project Date: September and October 2009

Over the course of several weeks in September and October, two volunteers and four Camp Dawson staff members contributed a total of 50 hours to develop an interpretive trail on Camp Dawson's Volkstone Training Area. Volunteers constructed 1/5-mile of trail in bottomland hardwood forest, showcasing some unique riparian habitats which include forested wetlands and palustrine emergent wetlands. The trail included a looped 1,100-foot boardwalk in the wetlands.

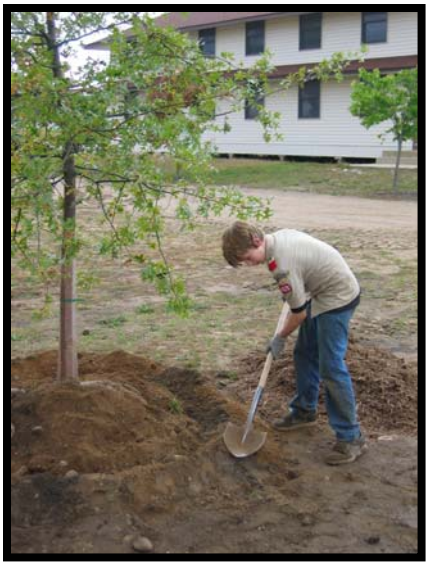


The interpretive trail was originally proposed to be built of recycled materials; however, due to the increased cost and to allow for a longer boardwalk with given funding, pressure treated lumber was used instead. Pending future funding, volunteers will extend the boardwalk and erect educational signs/kiosks along the trail next year.

While working on the project, volunteers commented on observing wildlife unique to the riparian habitat including turtles, snakes and songbirds.

Contact: Ryan Snyder, at (304) 791-4132

Fort Custer Training Center
Michigan
Natural Resource Project:
Tree Planting

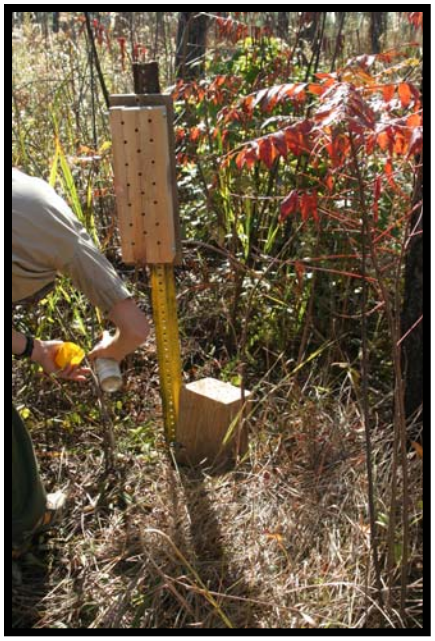


Site managers at Fort Custer chose to focus this year's National Public Lands Day efforts on replacing trees that had been damaged by wind or killed by Dutch Elm Disease. With the help of 20 volunteers, including a local Boy Scout Troop, over 20 shade trees were planted in the cantonment area within the fort.

Site managers hope that the trees will not only add to the natural beauty of the fort, but will also provide wind protection and aid in energy use reductions.

Contact: Jonathan Edgerly, (269) 731-6570

Fort McClellan Army National Guard Training Center, Alabama
Natural Resource Project:
Wildlife Habitat Improvement and Native Seeding
Pollinator Project
****Project Date: November 7, 2009****



Two local Boy Scout troops constructed 20 bee nest boxes and drilled holes in 20 bee logs prior to the event. Bee nest boxes are designed to provide habitat for solitary bee pollinators, which make up 85% of all bee species. On the project day, scouts installed the boxes on trees and posts near native wildflower plots on Pelham Range. The group of 20 scouts, several scout leaders and parents broke into two groups. One group assisted a staff wildlife biologist to seed two wildflower plots. The other group mounted bee boxes to fence posts and spray painted each post yellow for visibility. Bee logs were placed on the ground at the foot of each post. All participants were transported to other wildflower plot locations to install bee boxes and logs. The plot locations varied in habitat type to include previously mowed areas, open grasslands, shrub areas, road sides, forest edges and pine woods.

This pollinator project served as a service project for the scouts and provided an opportunity to educate them about the important role of pollinators and their critical status. Besides benefiting pollinators such as bees, wasps and butterflies, the addition of native perennial wildflowers to Pelham Range increases biodiversity in locations that are exhibiting a monocultural habitat. The plots also serve to enhance wildlife habitat by providing food and cover for species such as quail and songbirds.

Contact: Leah Nerem, (256) 847-4548

McCrady Training Center, Fort Jackson, South Carolina

Natural Resource Project:
Trail Work, Native Vegetation Planting and Signage Installation

Pollinator Project

Project Date: September 25, 2009

Volunteers created pollinator gardens in selected areas along the Palmetto Trail and the Brigadier General Harry J. Vann Interpretive Trail. The Palmetto Trail will eventually span across the entire state of South Carolina from the coast to the foothills of the Appalachian Mountains. The interpretive trail on the post, which is an off-shoot of the Palmetto Trail, was made possible by NPLD/Legacy funding in 2000.

The purpose of the trail is to help educate and provide recreational opportunities to the citizens of South Carolina, sharing the land and inspiring a conservation ethic. The trail section on the installation includes several interpretive signs and an outdoor classroom. The signage educates hikers, students and soldiers about the role of pollinators in the environment and actions they can take to protect pollinators at home.

Sixty volunteers added new educational signage and continued to make improvements and extensions to the nature trail during this year's NPLD event. The trail is now extended up to the cantonment area on McCrady Training Center, which makes it more accessible for anyone on the installation to use for walking or physical training.

The planting portion of the project focused on butterflies, hummingbirds and bees and the role they play as pollinators in the sand-hills ecosystem of South Carolina. Vegetation plots were established that would bloom throughout the year. In total, volunteers planted 180 native plants and sowed five pounds of native seed. They planted flowers in a diversity of zones on the trail, including upland areas, transition zones and wetlands. Volunteers were also educated on the importance of pollinator species, their role in the environment and on the pollinator-plant relationship. Lieutenant Colonel Todd Shealy gave a presentation about Honey Bees, their role as pollinators and their decline due to the Colony Collapse Disorder.

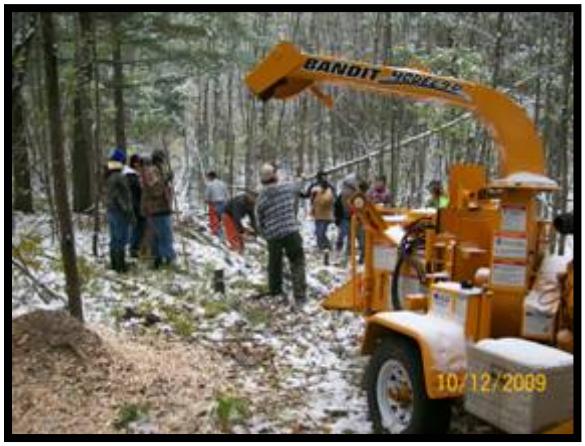
Volunteers included students from Lugoff-Elgin Middle School Science Club, Girl Scout Troop 2133 from Lexington, University of South Carolina students, members of the Palmetto Conservation Foundation and members from the 218th Regiment of the South Carolina Army National Guard.

Contact: John (Daniel) Hutto, (803) 806-2091

Minnesota Army National Guard, Camp Ripley, Minnesota

Natural Resource Project: Trail Work and Pier Construction

Project Date: September 21-25, 2009



During NPLD, Camp Ripley site managers sought to improve community access to Fosdick Lake, a popular spot located within the camp, as well as to provide safe recreational opportunities along its shore. Twenty-five volunteers assisted with the project. Volunteers built 400 meters of new access trail, replacing the steep, eroded path that had previously provided access to the lake. They also constructed a multi-use fishing pier and viewing platform.

Volunteers were also instrumental in policing the area to keep camp visitors away from the construction and ensuring that no litter or debris was left at the project site. The new access trail and fishing pier will provide enjoyable recreation opportunities for Camp Ripley soldiers and their families.

Contact: Jay Brezinka, (320) 616-2720

Pennsylvania National Guard Military Museum, Pennsylvania

Natural and Cultural Resource Project:
Native Vegetation Planting and Wildlife Habitat Improvement

Pollinator Project

Project Date: October 2009 and November 19, 2009

The Pennsylvania National Guard Military Museum is on a main street in the entry to the installation. The museum's mission is to provide for the establishment, promotion and support of charitable and educational activities relative to preserving and honoring the history of all units of the Pennsylvania Army and Air National Guard from the Civil War to the present, with special emphasis on the 20th century. The museum helps interpret for citizens, veterans and young people the story of "The Guard" and Fort Indiantown Gap. To encourage the public to visit the museum, site managers planned several beautification projects around the building exterior, such as planting a native butterfly garden.

Fort Indiantown Gap is home to the Regal Fritillary Butterfly, with the only viable population in the eastern United States. The Fort provides an environment suitable for them with warm-season grasses and other native plants important to the species, such as arrow-leaved violet, milkweeds and thistles.

Natural Resources staff previously planted several butterfly gardens on the post, and for National Public Lands Day they decided to engage volunteers in planting an additional garden behind the Museum and Range House with signage to educate the public about the butterfly's habitat and its rarity.

Prior to the planting date, an Eagle Scout candidate from Boy Scout Troop 27 led his fellow scouts in adding lattice work along the side of the handicap access ramp. The Boy Scouts also

painted the ramp, porch, and steps and planted several new flowerbeds. They also planted a tree near the entrance of the handicap access ramp.

On November 19, students from the Milton Hershey School arrived eager to clean up brush and plant the butterfly garden. The students planted native shrubs and other plants. The native plants will increase the source of food and nectar for native pollinators in the area dominated by landscaped lawn. In addition to plantings, the students cleaned inside the museum itself. The students will be returning from time to time to take care of the plants and ensure the longevity of the project.

There were changes to the original timeline due to cultural and resource staff illnesses, delaying the actual workday until November. Additional work that was not completed in November will be completed in the spring of 2010. Bat and bird boxes and educational signage will be placed around the building exteriors and the butterfly garden.

Contact: Rita Meneses, (717) 861-9415

Sparta Training Area, Illinois
Natural Resource Project:
Native Vegetation Planting and Shoreline Stabilization
Pollinator Project

Trees Forever, an Iowa-based nonprofit whose mission is to plant and care for trees and the environment, partnered with the Illinois Army Reserve and National Guard to plant trees on the Sparta Training Area. Working with a National Guard forester Peter Frey and facilities director Jon Casebeer, *Trees Forever* mobilized 60 volunteers plus 15 staff and National Guard personnel to plant 494 native trees suited for the sloped, reclaimed mining ground along a mile of lake shoreline.

National Guard personnel prepared the site before planting by mowing, weed spraying, placing mulch and stakes, drilling holes and transporting the trees to the site. Due to well organized site preparation and pre-service orientation by Sparta Guard members, volunteers completed the task in three hours. The objective of the planting was to provide wildlife habitat, inhibit bank erosion and promote water quality filtration through buffer installation. Staff also taught volunteers how to plant trees, what types of sites were suitable for planting and educated the public about the many environmental career paths in the Army.

Partners included the Illinois Army Reserve/National Guard; the Edmund B. Thornton Foundation; the Illinois Department of Natural Resources; the World Shooting and Recreational Complex; Southern Illinois University Sigma Kappa Sorority; Belleville AmeriCorps; students from Southwestern Illinois College and Sparta High School/SKILLS USA; Southern Illinois University Center for Environmental Health; and Safety Beautify Southern Illinois.

Contact: Jonathan Casebeer, (217) 761-3794 or Debbie Fluegel, (309) 925-9925

United States Air Force

Andrews Air Force Base, Maryland

Natural Resource Project: Pollinator Habitat Enhancement

Pollinator Project

****Project Date: September 25, 2009****

The Yuma Park area of Andrews Air Force Base was adopted a few years ago to provide a natural, tranquil location on base where personnel, both military and civilian, could find a moment to decompress. In an effort to increase the beauty of the park and add a space for environmental learning, a butterfly garden was planned.

On National Public Lands Day, 14 volunteers worked together for five hours to build the butterfly garden. They dug ground for 55 plants chosen to provide an environmentally beneficial habitat for local butterfly species. Once the creation of the garden was complete and the plants were in the ground, over 70 children from the base's Youth Center visited the garden and engaged in a lesson on butterfly habitats.

Contact: Wendy Leung, (301) 981-9638

Beale Air Force Base, California
Natural Resource Project:
Native Vegetation Planting and Stream Stabilization
Pollinator Project
****Project Date: September 25, 2009****

Site managers at Beale Air Force base chose to plant vegetation along several small streams on the base. The areas around these seasonal drainage canals lacked native plants and were barren except for invasive grasses, making them extremely susceptible to erosion. On National Public Lands Day, seven volunteers worked for four hours to plant 67 native plants along the streams, stabilizing the banks and providing new habitat for pollinating birds and insects.

Contact: Chuck Carroll, (530) 634-2738

Cape Canaveral Air Force Station, Florida
Natural Resource Project:
Native Vegetation Planting and Pollinator Garden Construction
Pollinator Project

Over 70 volunteers celebrated National Public Lands Day at Cape Canaveral Air Force Station by planting four separate pollinator/butterfly gardens at the E&L Building, a new Air Force Space and Missile Museum exhibit building at Cape Canaveral, and the new Child Development Center and Commissary building at Patrick Air Force Base.

Work actually began on September 19 at the Commissary when eight Boy Scouts from Troop 373 provided the muscle necessary to remove weeds, gravel and rock from the raised flower beds on the north and west sides of the building. This effort prepared the weed and grass-infested flower bed for the planting of native pollinator plants the following Saturday by 22 Girl Scouts and parents from Troops 1509, 1565 and 894. This army of volunteers successfully placed over 150 plants in the two raised flower beds and covered the area in seven cubic yards of pine bark mulch.

In addition to the scouts planting at the Commissary, 30 children and adult volunteers planted eight raised planter boxes at their new facility currently nearing completion in the Central Housing

area of Patrick AFB. The children and their parents planted 96 native pollinator attracting plants, applying fertilizer and mulch to the planters. The plants support various life cycle stages of numerous pollinators, including butterflies, moths, bees, other flying insects and some species of birds, like the ruby-throated hummingbird. The Center plans to include pollinators into their future teaching programs.

On Cape Canaveral, the new Air Force Space and Missile Museum exhibit facility was the site of another new pollinator garden. Six museum volunteers, led by Museum Director Emily Perry, created two separate gardens on the north side of the new facility. These volunteers removed an abandoned French drain and installed a plastic pond feature to utilize air conditioner condensate water to support growth of some aquatic pollinator plant species and facilitate irrigation of the rest of the garden. A smaller circular garden was created adjacent to a small grove of native trees.

The final garden site was the E&L building in the Industrial Area of Cape Canaveral. Ten volunteers from the Cape Natural Assets office planted over 60 plants in five separate beds on the south side of that building. Similar to the other sites, these locations were selected based upon their needs for landscaping and their respective abilities to showcase and educate personnel and the general public to the vegetation needs of native pollinator species.

At all sites, volunteers will continue to irrigate and maintain the native plants until they become well established. Overall, the NPLD plantings were a success and all participants worked diligently toward their goals and left their respective gardens with a true sense of pride and accomplishment.

Contact: Don George, (321) 853-6823

Fairchild Air Force Base, Washington

Natural Resource Project:
Native Vegetation Planting and Walking Path and Bridge Construction

Pollinator Project

With just 10 volunteers, Fairchild AFB was able to accomplish a lot of work on National Public Lands Day. Volunteers and site coordinators converted a weed-infested one-acre area back to native habitat. The acre was weeded and tilled, and then a mixture of native grass seeds was applied to the area. The acre was then planted with 2,500 live native grasses and perennials.

In addition to the invasive removal and planting project, improvements were made to the project completed on the base during NPLD 2008. A second bridge was built over a drainage canal, connecting the first bridge and walking paths that were constructed by volunteers last year.

Contact: Jonathan Wald, (509) 247-8207

Lackland Air Force Base, Texas
Natural Resource Project: Wildflower Seeding
Pollinator Project
****Project Date: September 19, 2009****

Lackland Air Force Base site managers chose to plant native wildflower seeds on the base for National Public Lands Day. A 30-acre area on Lackland Air Force Base, known to drain well during rains, was chosen as the location because it would allow the seeds to germinate. With the help of 23 volunteers, approximately 175 pounds of wildflower seeds were dispersed throughout the area. Site managers had also planned to install several Purple Martin birdhouses but were not able to facilitate that part of the project.

Contact: Matt Kramm, (210) 671-5337

Luke Air Force Base
Barry M. Goldwater Range East, Arizona
Natural Resource Project: Native Vegetation Planting, Signage and Irrigation System Installation, Invasive Plant and Trash Removal
Pollinator Project
****Project Date: November 7, 2009****

The Gila Bend Air Force Auxiliary Field is located in the Sonoran Desert in southwestern Arizona. Because of the isolation of Gila Bend within the desert landscape the site is an important stopover within a significant 'nectar corridor' for many species. This installation attracts a high diversity of migratory and resident bats and nectarivorous birds, including at least five hummingbird species, three oriole species and many other songbirds.

The project site is an interpretive nature trail and an adjacent xeroriparian (riparian habitat classification) wash located near a family campground at the Gila Bend. Volunteers planted 50 native Sonoran trees, shrubs and wildflowers that are important sources of food and cover for resident and migratory pollinators. Volunteers also installed a water-conserving, drip irrigation system along the nature trail and the adjacent wash. The day was the culmination of three previous days of grueling effort to prepare the trenches for the irrigation system and the holes for trees and large shrubs.

On the main workday, volunteers also installed numbered signs along the interpretive trail and removed invasive vegetation and trash from the site. The work crew was comprised of staff of the 56th Range Management Office along with six additional volunteers. As volunteers planted the new butterfly and hummingbird garden, the flowers were being visited by butterflies and an Anna's hummingbird, even with the flowers still in their pots.

Contact: John Arnett, (623) 856-8491

Malmstrom Air Force Base, Montana
Natural Resource Project:
Lake Shoreline Restoration and Wildlife Habitat Improvement
Pollinator Project

Because of its popularity, Pow Wow Pond and the associated recreational area are one of the few spots on Malmstrom AFB where volunteers can rehabilitate the landscape to promote ecological awareness and educate the public.

Volunteers stabilized eroding sections of the pond shoreline with 24 tons of rock. Site manager Jason Gibbons was originally conservative in estimating the amount of shoreline that could be covered, but volunteers ended by stabilizing an impressive 80 feet of shoreline. The worst of the areas had a 15-foot stretch with two-foot high cuts in the bank. Since these areas are impacted by heavy foot traffic from fishing, this project served a tremendous need in rehabilitating the environment and enhancing recreational opportunities for the public.

In addition, staff and volunteers built two single-chambered bat houses and installed them next to the pond. Six Girl Scouts from local troop 3135 assembled the bat houses from previously-cut wood. The girls enjoyed the process—they kept busy caulking, screwing together and painting the wood for four hours. In addition, the volunteers collected 20 pounds of trash and pruned 40 plants around the pond area.

Contact: Jason Gibbons, (406) 731-6333

Patrick Air Force Base, Florida
Natural Resource Project:
Tree and Native Vegetation Planting and River Shoreline Restoration

The Family Camp on Patrick Air Force Base was recently renovated and cleared of invasive Melaleuca trees. As a result there were very few shade trees in the area. The Family Camp is a very popular camping destination with active duty and retired military personnel due to its location adjoining the Banana River and with ready access to the pristine ocean beaches on the base.

In order to restore this area, ten volunteers planted wetland vegetation to help stabilize the Banana River shoreline. The planted species included several types of Oak, Gumbo limbo and Coco plum. These trees will eventually provide shade for campers and will supplement invasive Australian pines slated for future removal once the newly planted trees reach maturity. Volunteers also planted 27 Seagrapes (*Coccoloba uvifera*) along the perimeter of the camping area to provide a barrier from the airfield and 100 Spartina grass plants along the developing small sandbar area. Besides shade, these trees will help to reduce erosion and provide better habitat for native fish species.

Contact: Dale Hawkins, (321) 853-0960

Randolph Air Force Base, Canyon Recreational Area, Texas

Natural Resource Project: Native Vegetation Planting and Seeding[5]

Pollinator Project

****Project Date: February/March 2010****

At Canyon Recreation Area, site managers will continue native wildflower seed planting projects from previous years. Wildflowers promote beneficial insect pollinators and provide food for various herbivores indigenous to the area. Site managers have selected small plots of land within the recreational area that drain well for the seeding. Volunteers will mow, rake and remove existing vegetation to eliminate competition with the newly planted seeds. They will further prepare the planting site by raking and tilling the soil and incorporating one-inch depressions throughout. They will mix masonry sand with wildflower seed to increase volume and provide even distribution of seed material over the site. They will then distribute the seeds uniformly over entire site, rolling the area to press the seed material into the soil. Twenty-five Oldeander (*Nerium oleander*) plants will also be planted to help stabilize the soil, reduce erosion and provide habitat for birds and other pollinators.

Contact: Scott Shepard, (210) 652-703

United States Air Force Academy, Colorado

Cultural Resource Project: Historic Cabin Restoration[6]

****Project Date: April 2010****

A historic Pioneer Cabin (Capps Cabin) on the installation was originally constructed in 1884 by William E. Burgess. The cabin was moved to its current location in 1961 and was listed on the National Register of Historic Places in 1975. Volunteers will work on several projects to reduce deterioration of the cabin's historic elements and help preserve this historic structure. Specifically, volunteers will repair the split rail fence surrounding the historic structure to include replacement of four posts and eight rails. Any debris around the cabin site will be cleaned up. The inside of the cabin will be cleaned and treated for insects. The cabin's exterior will be inspected for insect damage and dry rot. Holes will be repaired and the exterior will be treated with a weather proofing sealant. The front porch is not original to the structure and will be shored up and all damaged lumber replaced. The cabin's doors, windows and frames are not original to the structure. The front windows and rear door casing will be replaced. Two more historically accurate cabin doors will be manufactured by hand to replace the existing doors. All rehabilitation work completed on the cabin will be in accordance with the Secretary of the Interior's standards. An interpretive garden with native high altitude wild flowers will also be developed in proximity of the cabin.

Contact: Vicki Williams, (719) 333-7341

[5] Evaluation not yet submitted due to later event date.
[6] Evaluation not yet submitted due to later event date.

Vandenberg Air Force Base, California
Natural and Cultural Resource Project:
Native Vegetation Planting and Pollinator Habitat Enhancement
Pollinator Project
****Project Date: November 13, 2009****

Vandenberg has a historical building called the U.S. Coast Guard Rescue Station and Lookout Tower at Point Arguello, also known as the "Boathouse." The facility was last refurbished in 1982-1983 in a project related to the West Coast Space Shuttle program. The Boathouse is also located near an important biological area for many marine mammals, including sea otters, harbor seals, sea lions, migrating whales and a roosting location for monarch butterflies as they migrate.

Site managers and volunteers worked to convert the landscape around the Boathouse into a native, demonstrative garden that highlights plants which attract local pollinators. To accomplish this, 60 volunteers planted 350 native plants that provide nectar and habitat for beneficial insects. Volunteers also constructed houses for pollinating wildlife, including birds, bees, bats and butterflies. They installed one interpretive sign and collected 100 pounds of trash from the area.

Contact: Christopher Ryan, (805) 606-2839

United States Navy

Charleston Naval Weapons Station, South Carolina
Natural Resource Project: Native Vegetation Planting[7]
Pollinator Project
****Project Date: September and December 15, 2009****

Much of the Naval Weapons Station is dominated by loblolly pine with few plants that harbor or feed pollinator species. Site managers plan a planting project to enhance habitat for pollinator species such as bees, birds, bats and insects. Volunteers will plant trees, flowering shrubs and other flowering invasive plants. They will dig holes, transport, plant, prune, mulch and install tree guards on the trees and shrubs. For herbaceous flowering plants, volunteers will disk, level, plant, cover and fertilize all materials. Planting flowering trees, shrubs and herbaceous flowering plants on road shoulders and in abandoned fields will greatly enhance the habitat for the desired pollinator species.

Site preparation for herbaceous plants will occur in September, with the actual volunteer planting activity taking place in December. The National Arbor Day Foundation recommends planting trees in coastal South Carolina in the month of December.

Contact: Terrence Larimer, (843) 764-7951

[7] Evaluation not yet submitted due to later event date.

Fallbrook Naval Weapons Station, California
Natural Resource Project:
Pollinator Habitat Enhancement and Native Vegetation Planting
Pollinator Project

Fallbrook Naval Weapons Station volunteers helped reduce soil erosion and planted native vegetation to promote habitat for pollinators. In the weeks leading up to NPLD, Fallbrook Station was a hub of activity in preparation for the event. A half-acre planting site was first cleared of invasive species. Members of a local Boy Scout troop visited the site on several occasions to conduct erosion control efforts in an area where experts were installing new drainage canals.

On the morning of the event, 65 volunteers came out to the site, including several Boy Scout troops, station staff and community members. These volunteers planted 1,600 plants in the area that had been cleared of invasive species.

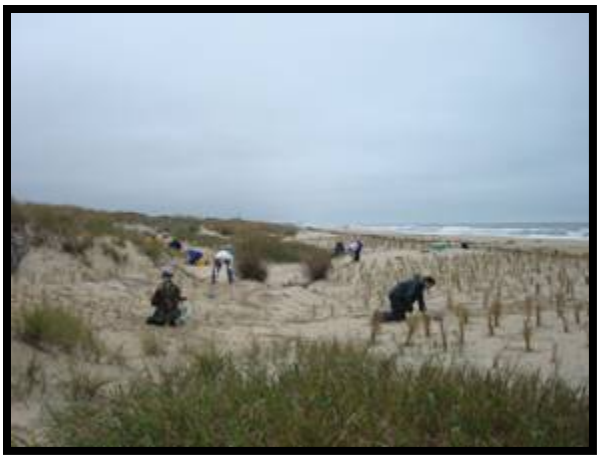
Contact: Christy Wolf, (760) 731-3425

Greenbury Point, Naval Academy, Annapolis, Maryland
Natural Resource Project:
Trail Work, Native Vegetation Planting and Weeding
Pollinator Project
****Project Date: October 3, 2009****

Site managers and 20 volunteers worked to restore the deteriorated Timberdoodle Trail. A section of the trail was lost entirely to weeds, but volunteers managed to uproot the invading grasses, hack back the strangling invasive vines and restore 0.3 miles of trail. Volunteers collected about 40 pounds of trash and 100 pounds of invasive plants from the trail. They also refurbished a garden outside of the Nature Centre which will encourage pollinator activity and allow it to blossom beautifully in the spring for the public to enjoy.

Contact: Katharine Clark, (410) 293-1027

NASO Dam Neck Annex, Virginia Beach, Virginia
Natural Resource Project: Dune Enhancement and Stabilization
Pollinator Project
****Project Date: October 16-17, 2009****



The National Aquarium, Command Navy Region Mid-Atlantic and Naval Facilities Mid-Atlantic partnered to survey, design, and implement coastal restoration in the Virginia Beach area.

In mid-October the Aquarium participated in a sand dune restoration event where volunteers from the local community; U.S. Navy; Virginia Aquarium and Marine Science Center; and the Aquarium Conservation Team worked together to stabilize one acre by planting 30,000 units of native grass *Panicum virgatum*, *Spartina patens*, and *Ammophila breviligulata* at the Naval Air Station Dam Neck Annex site.

Due to heavy rain and wind, the anticipated volunteer numbers dropped significantly for this event. With 30 registered, 11 enthusiastic, devoted volunteers arrived to participate in the planting. They dedicated more than 60 total hours to complete the project.

These are some of the last dunes in the Virginia Beach area and are crucial in the protection of wildlife habitat. The dune stabilization will help protect the site and base operations, as well as provide habitat to local wildlife and a food source for resident and migrating birds.

Contact: Michael Wright, (757) 433-288

Naval Air Station Oceana, Virginia Beach, Virginia
Natural Resource Project: Trail Work
****Project Date: November 6, 2009****

Naval Air Station Oceana (NASO) sits in the highly urbanized area of Virginia Beach with limited direct access to naturalized areas. The trail and pond at NASO are unique in that they sit outside of the military fenced compound, thus allowing greater access to authorized military and civilians. This site provides fishing, wildlife viewing, canoeing and hiking opportunities to the public. The boardwalk goes through a wetland mitigation area. The boy scouts, various educational facilities and other local groups utilize this area as part of their nature education programs. There is also a gravesite in this location where people come to pay their respects. Repairs and maintenance to the boardwalk, foot bridges and general area were needed to ensure that this area is maintained to a level where it is attractive, functional, inviting and safe.

For the NPLD event, site managers led volunteers to rebuild and repair the nature trail boardwalk and foot bridges. Fifteen volunteers repaired the damaged boardwalk railings and two foot bridges along the trail, built three new footbridges, rebuilt a vandalized picnic shelter and removed fallen trees and debris from the trail. They also picked up trash and trimmed overgrown trees, shrubs, and grasses.

Contact: Michael Wright, (757) 433-2883

Naval Air Station, Truman Annex, Key West, Florida

Natural Resource Project:
Coastal Habitat Restoration and Pollinator Habitat Enhancement

Pollinator Project

****Project Date: November 14, 2009****

The Naval Air Station beach on Key West is a popular recreation area used by military families and friends. Volunteers restored part of this coastal habitat as part of the NPLD project. Specifically, site managers led volunteers to create a butterfly pollinator garden. The volunteers helped to dig and plant 166 plants native to the lower Florida Keys. This vegetation was selected to attract wildlife, birds, bees, and butterflies. They first removed 10 pounds of invasive plants. They also helped place five benches around the butterfly garden and cleaned the site of 10 pounds trash and debris that had washed ashore.

Planting flowering trees and wildflowers created an aesthetically pleasing environment, helped stabilize the soil and reduced soil erosion (especially during storm season), promoted beneficial insect pollinators and provided food and shelter to many birds that will migrate through the area every year.

Contact: Carrie Backlund, (305) 293-2192

Naval Submarine Base New London, Admiral Fife Naval Recreation Area, Connecticut

Natural Resource Project:
Invasive Plant Removal and Pollinator Habitat Enhancement

Pollinator Project

****Project Date: October 30, 2009****

To improve bird nesting habitat, a team of 12 volunteers installed 12 nesting boxes for Chickadees, Nuthatches and Woodpeckers throughout the 36 acres of mature upland forests at the Recreation Area.

The volunteer team then focused its effort, under a biologist's supervision, to control invasive Asian Bittersweet (*Celastrus orbiculatus*) vines on five acres of impacted hardwood forest in the southwestern portion of the property. Using hand loppers and bow saws, volunteers cut an estimated 1,000 bittersweet vines at ground level to eliminate the vines from the forest canopy. A follow-up assessment and pruning will be scheduled for the spring of 2010.

Finally, with support from the volunteers, the biologist treated approximately two acres of invasive *Phragmites* vegetation with herbicide in an area of tidal wetlands to promote the reestablishment of native salt marsh grasses and wetland vegetation. A follow-up assessment and repeat treatment will be scheduled for the spring of 2010.

Contact: Richard Conant, (860) 694-5649

Naval Support Facility Carderock, Maryland
Natural Resource Project: Wetland Enhancement and Restoration
Pollinator Project
****Project Date: September 25, 2009****

The National Public Lands Day event that took place at Naval Support Facility Carderock consisted of two main efforts; removing non-native plants and planting native plants in the constructed wetland and upland areas located on the site. A total of 103 volunteers worked together to identify and remove 90 of the invasive pear trees that had taken over the site and plant 13 native tree species in the area. Additionally, volunteers planted 630 other native plants and removed seven bags of trash from the area.

In addition to these projects, staff of the Wildlife Habitat Council biology and conservation education departments conducted activities with local fifth and sixth grade students. The students participated in three activities focused on ecology, with particular emphasis on enhancing habitat for pollinators.

Contact: Maria Vargas, (301) 227-3939

Naval Weapons Station Seal Beach, California
Natural Resource Project: Salt Marsh Restoration
Pollinator Project
****Project Date: October 3, 2009****

Naval Weapons Station and Seal Beach National Wildlife Refuge hosted a volunteer event with the objective of restoring native vegetation to several acres of upper salt marsh habitat and adjacent upland habitat. Volunteers removed invasive plants, prepared the land for restoration and planted native plants. These upland restoration areas provide habitat and shelter for state and federally-listed endangered bird species, numerous pollinator species, and a wide variety of mammals, amphibians, birds and reptiles. They also provide a buffer between wetland habitat and agricultural lands.

The U.S. Navy and the U.S. Fish and Wildlife Service relied heavily on the Friends of Seal Beach to assist in the coordination, planning and implementation of this project. According to site managers, National Public Lands Day proved to be an ideal opportunity to involve community volunteers in the upland restoration next to the refuge wetlands.

The restoration areas were previously covered in non-native vegetation such at Fountain Grass, Fennel and Hottentot Fig. The U.S. Navy was responsible for the removal of 2,000 invasive plants, clearing the way for soil preparation work by the Friends group. Over 175 volunteers from the public planted 500 native shrubs and flowers in the prepared area. Volunteers included 75 Boy and Girl Scouts from six troops, students from California State University at Fullerton and employees of Toyota Motor Sales, USA, Inc.

Contact: Bob Schallmann, (562) 626-7290

NIOC Sugar Grove, West Virginia

Natural Resource Project:
Invasive Plant Removal and Native Vegetation Planting

Pollinator Project

Project Date: September 18, 2009

National Public Lands Day consisted of a two-fold workday project this year. Twenty-six volunteers removed invasive plants and planted native wildflowers.

On an upper site location, volunteers eradicated Sericea Lespedeza *(Lespedeza cuneata*), an invasive species. In order to attract native pollinators back to the area, they replanted several wildflower species that are native to the shale barrens: Canada Cinquefoil, Bird's-foot Violet (*Viola pedata*), Phlox (*Phlox subulata*), Strawberry (*Fragaria spp.*) and Rock Cress (*Arabis laevigata*).

At a lower site location, volunteers directed their efforts at controlling invasive Tartarian Honeysuckle and Rambler Rose from around the pond area, just east of the South Fork of the South Branch of the Potomac River riparian buffer area. Before the project, these two species occupied approximately 90% of the South Fork riparian watershed, thereby displacing the native species and radically altering natural areas and ecosystem processes.

NIOC Sugar Grove again partnered with Mr. Jack Markham, Forester. He provided a brief overview to educate the volunteers about the effects of invasive species on natural resources and the importance of continued stewardship to eradicate these species and restore the ecology of the natural environment.

The invasive removal work is still progressing and will be part of the 2010 proposal to ensure that those species are controlled permanently at Sugar Grove. Control measures over the last four years, including both hand pulling removal and chemical treatment, have immensely reduced these invasive species at the base.

Contact: Steven Niethamer, (304) 249-6341

United States Marine Corps

Camp Pendleton, California

Natural Resource Project: Wildlife Habitat Enhancement

Project Date: September 18, 2009

Cape Pendleton is one of the largest expanses of natural area that has remained untouched as Southern California continues to experience rapid development. The growth of human population and infrastructure has led to the fragmentation of many important animal habitats. On National Public Lands Day, site managers and 50 volunteers came together to help ease some of the stress on animals whose habitats have been disrupted.

Volunteers worked for five hours installing artificial watering holes made out of fiberglass that collect and store rainwater for animals to use during the dry season or periods of drought. The need for the watering holes and their locations were determined through a two year study of deer who reside in the camp. While deer are the intended benefactors, site managers believe that the watering holes will also be used by bobcats, coyotes, fox and other animals.

Contact: Beth Forbus, (760) 725-9737

Marine Corps Air Ground Combat Center, 29 Palms, California

Natural Resource Project: Pollinator Garden Construction[8]

Pollinator Project

****Project Date: October 2009****

Throughout the month of October, site managers organized volunteers to design and establish a nectar garden to provide habitat and food for pollinating species such as hummingbirds and butterflies. Since the base is located in a desert area, there was plenty of nesting habitat but little food resources for hummingbirds and butterflies. This project succeeded to increase those food resources by planting more native plants. The nectar garden was established close to an existing nature trail where many base personnel visit.

Contact: Steve Selser, (760) 830-5728

Marine Corps Base Quantico, Virginia

Natural and Cultural Resource Project: Historic Trail Maintenance

A foot trail, known as Hill Trail, traverses a steep hillside across a central portion of a National Register of Historic Places-listed Civil War winter camp, home to the 2nd Tennessee Volunteer Regiment (Confederate) in 1861-1862.

A 200-foot section of the trail was eroding badly due to hiking traffic. Both the original eroded trail and the detours around the worst ruts were affecting some of the 200 or more hut features. These features are square-ish depressions where Civil War soldiers dug pits over which they erected make-shift cabins. Hut features are the richest part of the site with the remains of hearth, cooking utensils, personal effects, gun tools and many other historic artifacts.

Volunteers succeeded to cover this section of the trail with a geotextile to prevent further erosion and anchor landscaping timbers to divert storm water. The most difficult part of the task was transporting the materials to the site. Vehicular transport could bring the timbers and other materials within only about 600 yards of the site, with downed trees and stream cuts across the narrow trail hindering even pedestrian traffic. Three volunteers put in a tremendous effort, working eight hours to transport materials, lay geotextile and anchor timbers.

A local wholesale supplier was found who could supply the geotextile materials at a considerable savings. This allowed site managers to purchase additional material which they plan to install at locations where trails cross World War I USMC training trenches and a colonial era slave or tenant dwelling site, both of which have been determined eligible for a listing in the NRHP.

Contact: John Haynes, (703) 432-6781

[8] Evaluation not yet submitted. Note that the site manager has been given an extension to submit the site's evaluation in late November.

Marine Corps Base, Camp Lejeune, North Carolina
Natural Resource Project:
Native Vegetation Planting and Educational Signage Installation

Cape Lejeune spent National Public Lands Day 2009 making improvements to Pollock's Point Wildlife Viewing Area, located on the base. Fifteen volunteers participated in the projects, part of which entailed picking up 250 pounds of trash, spreading 320 pounds of fertilizer, pruning trees, and planting 2,250 warm season grass plugs, flower bulbs and juniper trees.

In addition to the planting and maintenance, volunteers also installed an outdoor telescope that will enable the public to view some of the base's wildlife, including osprey nests, bald eagles, porpoises, pelicans and other waterfowl. In order for Pollock's Point visitors to get the most out of their experience, informative panels highlighting common wildlife and plant species found near the viewing area were also erected.

Contact: Martin Korenek, (910) 451-7235

Marine Corps Recruit Depot, Parris Island, South Carolina
Natural Resource Project: Pollinator Habitat Enhancement
Pollinator Project
****Project Date: October 19 and 28, 2009****

To celebrate National Public Lands Day, the Natural Resources and Environmental Affairs Office in partnership with the Low Country Master Naturalists and two volunteers installed 11 butterfly houses and 13 bee condos at various public locations on Parris Island. The bee condos and butterfly houses were attached to existing posts along the Depot's nature trails, viewing platforms, fishing piers, boat ramps and picnic areas. The locations were chosen based on an abundance of various plant and bush species that flower at different times of the year, giving the public the best viewing opportunities while improving the health of native plant species and increasing the populations of bees and butterflies. Each butterfly house and bee condo has its own interpretive sign describing native butterflies and the life cycle of the Orchard Mason Bee.

This event was a great source of learning for all involved. Local knowledge of the Orchard Mason Bee or 'Blue Bee' is rare. The Orchard Mason Bee condos have generated a lot of interest in the bee's habits and inspired public interest in how to make a bee condo. Pam Floyd and Debbie Way, both Low Country Master Naturalists, helped with this project and are now interested in incorporating the Orchard Mason Bee into their education classes.

Contact: Yvonne Plemmons, (843) 522-8100