



*Environmental Excellence*

**Army National Guard**



# *Our Environmental Mission*

*Excel in environmental stewardship  
to ensure the welfare of all citizens and  
communities while sustaining military readiness.*

# *Environmental Excellence*

**Army National Guard**



Front Cover: *Military training and nature coexist at the 15,000-acre McCrady Training Center in Columbia, South Carolina.*



*Buffalo still graze at Taos Pueblo, New Mexico, where the Army National Guard maintains the 1115th Transportation Company.*



## Environmental Excellence

Preserving, protecting and restoring natural and cultural resources are integral to the Army National Guard's commitment to defending America's lands and liberties.

Environmental stewardship ensures invaluable resources are sustained for future generations, while providing the men and women of the Army National Guard with quality training land.



We are proud of our accomplishments in balancing military training requirements and environmental stewardship. This brochure, *Army National Guard Environmental Excellence*, describes some of our successes in preserving, protecting and restoring natural and cultural resources for future generations. These achievements are our legacy to the nation: one that will last far beyond the 21st century.

As one of seven Dept. of Defense reserve components, the Army National Guard has units supporting readiness centers, training centers and maintenance facilities at approximately 3,100 locations throughout the 50 states, three territories and one district. These assets enhance the national military strategy by augmenting the Army whenever and wherever needed. In addition to our federal military responsibilities, we support the states during natural disasters and civil unrest.



The new millennium introduces a myriad of changes and challenges for our nation and its military forces. Members of the Army National Guard live in your community and are your neighbors, friends and co-workers. Although we primarily serve part-time, our units have increasingly absorbed missions and responsibilities formerly assigned to the active-duty Army.







## The Four Environmental Pillars

**E**nvironmental pillars provide a structure that reflects the Army National Guard's commitment to excellence in environmental stewardship. Leadership, people, resources, management, organization and communication comprise the foundation that supports the four pillars and their objectives. The four pillars are:

- **Compliance**—ensure compliance with federal and state environmental laws, regulations and the presidents' executive orders. Areas of focus include air quality, water quality, environmental audits, hazardous waste management and cleanup from ongoing activities.
- **Pollution Prevention**—reduce or eliminate pollution by replacing hazardous materi-

als with environmentally acceptable substances, process changes, and by reusing materials whenever possible. Hazardous waste reduction is a by-product of pollution prevention.

- **Conservation**—protect and enhance valuable national resources on land under National Guard stewardship. These include wetlands, floodplains, endangered species habitats, historic and cultural sites.
- **Restoration**—identify areas contaminated by past practices and clean up in a manner fully protective of human health and the environment. Work closely with federal and state regulatory agencies to define appropriate cleanup measures and schedules. Establish and maintain positive relationships with local communities and the general public.



*"The black bear is the protector of our people,"  
says Elisse Aune of the Mille Lacs Band,  
Ojibwe tribe, Little Falls, Minnesota.*



## Compliance

Army National Guard environmental professionals ensure our military force complies with environmental laws and regulations. We train our soldiers in compliance procedures for hazardous material storage, hazardous waste disposal, spill response, wastewater management and pollution prevention. We forge strong relationships with federal, state and local regulators.

### Compliance successes:

- The New Mexico Army National Guard operates one of the few paint booths in the state certified under the Clean Air Act, which they attribute to a highly efficient ventilation system at the vehicle

maintenance facility in Santa Fe. High-volume, low-pressure paint gun systems aid abatement of air emissions by 60 percent, reduce hazardous paint waste by more than 50 percent, and decrease hazardous waste generation by 75 percent.

- The Arkansas Army National Guard pioneered a hazardous materials training course to teach soldiers how to reduce or eliminate pollution. The course includes procurement, handling and disposal of hazardous materials and waste; natural and cultural resource conservation and protection; and how to conduct operations that comply with environmental laws and regulations.

*The National Guard's vehicle maintenance facility in Santa Fe, New Mexico, has one of the few paint booths in the state certified under the Clean Air Act.*





*Jim Leukel monitors the wastewater treatment plant on Camp Blanding, Florida. Nearly 81,000 gallons of sewage are processed daily at the 73,000-acre training center.*

- The Minnesota Army National Guard's environmental staff at Camp Ripley is jointly manned with employees from the National Guard and state's Dept. of Natural Resources. This unique partnership provides the National Guard with a better understanding of the ecosystem at Camp Ripley and allows them to more effectively manage environmental programs.
- The Mississippi Army National Guard actively monitors erosion control and internal wetland rehabilitation efforts at the 132,000-acre Camp Shelby, through Geographic Information Systems and Global Positioning Systems technology. Information is shared with regulatory agencies, including the U.S. Forest Service. Monitoring by the National Guard saved taxpayers \$1.2 million.



*Troy Hardin, environmental manager at Los Alamitos Training Center, California, stands by the National Guard's state-of-the-art, 200,000-gallon above-ground JP-8 fuel storage tank.*



## *Community Outreach*



*Community outreach is integral to the National Guard's mission of protecting lives and property. Whether it is providing potable water to Native Americans in New Mexico or building roads in Alaska, the Army National Guard is there to lend a helping hand.*

*Sergeant 1st Class Cecilia Chavez and 1st Sgt. Francis Cordova provide drinking water to Taos Pueblo resident, Gloria Mirabel.*

*Vincent J. Lujan, governor of Taos Pueblo, New Mexico, believes the National Guard and his people share a common purpose: preservation of the homeland.*





*Capt. William Fay works in the “eco-building” at Papago Military Reservation in Phoenix, Arizona. The adobe structure is powered by 11 kilowatts of solar energy.*



## *Pollution Prevention*

The Army National Guard incorporates cost-effective pollution prevention practices into daily activities. Although using fewer hazardous materials and generating less hazardous waste are the primary methods we use in pollution prevention, our soldiers also consistently seek ways to support pollution prevention efforts, such as recycling and education.



*Capt. William Fay explains that recycled soda cans, used tires, mud and straw make up the structure of the “eco-building” at Papago Military Reservation in Phoenix, Arizona.*



*Sergeant 1st Class James Dulin removes a track vehicle transmission from the aqueous parts washer at the National Guard’s maintenance facility on North Ft. Hood, Texas. Hot water replaces solvents to clean parts and reduce waste.*

**Pollution Prevention successes:**

- The Massachusetts Army National Guard at Camp Edwards cut hazardous waste from 8 tons to 4 tons in two years. Camp Edwards reduced its solid waste disposal by 50 percent through recycling of paper, plastics, tin and other materials.
- The Arkansas Army National Guard's creation of a Haz-Mart Pharmacy at Camp Robinson slashed disposal of hazardous items with an expired shelf life from 90 percent to 12 percent. This revolutionary online pharmacy advertises expired and unused items for reuse by units, substantially reducing the total hazardous waste stream.
- The Texas Army National Guard invested more than \$1 million in pollution prevention equipment and systems and boosted its recovery of solvents (paint thinners) by 136 percent. For example, at the Saginaw maintenance facility, the installation of an additional solvent recovery sys-

tem for the painting operations facilitates the distillation process and minimizes hazardous waste.

- The Minnesota Army National Guard at Camp Ripley hosts training units from around the world. Due to recycling, Camp Ripley disposes of only 1.53 pounds of waste per person per training day, much lower than the national consumer average of four pounds per day. More than 61 percent of the waste generated onsite is recycled. Recycling fuel, oil, antifreeze, solvents and metal contribute to the waste reduction.
- The Arizona Army National Guard's environmental staff at Papago Military Reservation in Phoenix partially constructed a 5,200 square-foot building out of aluminum cans, used tires, mud and straw. The environmentally sustainable adobe structure, dubbed the "eco-building," is powered by an 11-kilowatt solar array and is equipped with four cisterns to collect rainwater.

*Antifreeze recycling reduces waste and cost at the National Guard's vehicle maintenance facility on North Ft. Hood, Texas.*







*Used oil is temporarily stored in 50-gallon drums for recycling at Rio Rancho, New Mexico.*

*Cardboard is compacted for recycling at Diamond Head Crater, Oahu, Hawaii.*





*The Hawaii Army National Guard works with the Oahu Invasive Species Committee to protect indigenous plants at Bellows Air Force Station. The National Guard operates a multi-service regional training institute at Bellows.*



# Conservation

## Environmental Excellence

### Conservation

Innovative natural resources management is central to the Army National Guard's environmental mission. Land management initiatives, defined in our Integrated Natural Resources Management Plans, ensure safe havens for threatened and endangered plant and animal species.

We are equally committed to the preservation of cultural resources, such as archaeological sites and historic structures, outlined in our Integrated Cultural Resources Management Plans. Preserving and protecting these treasures today allow for long-term viability of our training lands.



*Joan Berish and Lori Wendland of the Florida Fish and Wildlife Conservation Commission track the health of the gopher tortoise by using a "bucket trap" next to its burrow on Camp Blanding, Florida.*

*Environmental specialist Ben Skellington works with the endangered Schiedea plant to ensure it survives and flourishes like the native Naupaka plant in Hawaii.*





*The Puerto Rico Army National Guard reforested 42 acres at Camp Santiago Training Site as part of its Integrated Natural Resources Management Plan. Together with local Boy Scouts and the U.S. Forest Service, the National Guard planted over 6,000 trees. The Guard also monitors signs of the endangered yellow-shouldered blackbird, which lives in the Salinas coastal area and is endemic to Puerto Rico.*



**Conservation successes:**

- The Texas Army National Guard implements a comprehensive maintenance treatment plan to restore, improve and maintain the historic structures at Camp Mabry. The National Register Historic District consists of 26 structures, including the only brick cavalry-style buildings in the United States dating to 1918.
- Joint archaeological research with Texas universities at Camp Mabry and other Army National Guard sites yield significant data about prehistoric mobility, settlement patterns and hunter-gatherer technology.
- Active consultation with Native American tribes facilitates training and construction on Army National Guard sites throughout Texas.
- The Florida Army National Guard at Camp Blanding devotes special attention to protecting and replenishing its population of red-cockaded woodpeckers. Relocating the birds to Camp Blanding from Fort Stewart, Georgia, and creating new roosting areas in longleaf pine trees are some of the environmental protection techniques used by the National Guard.
- The Nevada Army National Guard partners with eight public agencies and non-profit organizations to support marsh habitat and provide outdoor education opportunities for Reno's school children. Fifty acres of the National Guard's Stead Training Center comprise the new Swan Lake Nature Study Area, a wetland that attracts tundra swans and more than 130 other species of migratory birds.



*The federally protected red-cockaded woodpecker finds a home on National Guard land forested with longleaf pine.*

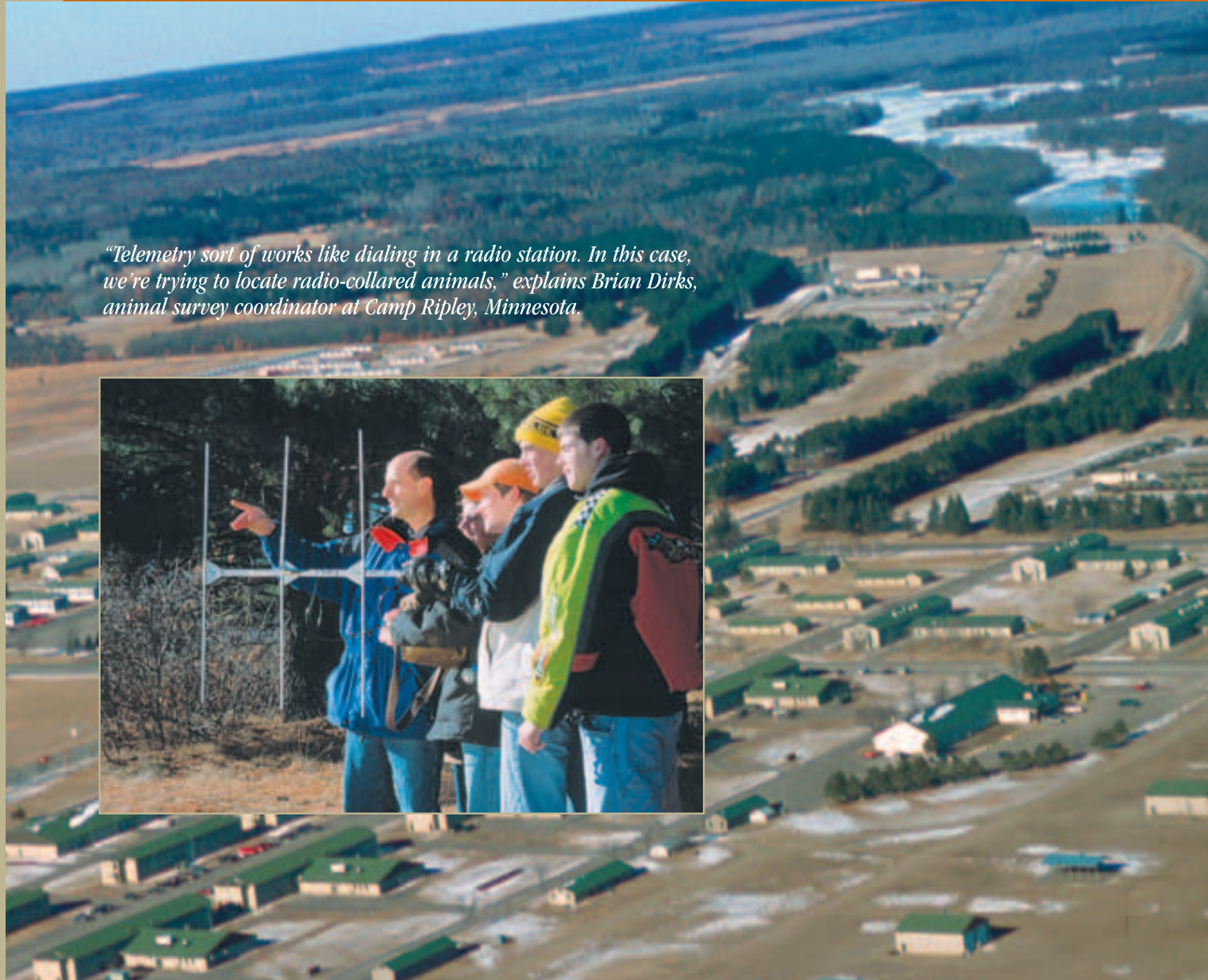




*The Eyes on Wildlife program at Camp Ripley, Minnesota, includes the study of different species such as the federally protected gray wolf. Master Sgt. Charles Farrell, teacher Becky Rennicke and students get a close-up look.*



- The Mississippi Army National Guard's natural resources staff arranged for an emergency water shuttle during a drought in the Desoto National Forest that saved at least one generation of threatened gopher frogs from extinction. The unit also developed the "gopher gap," a method that protects the gopher tortoise during construction and military exercises at training sites.
- The Minnesota Army National Guard consults with 13 Native American tribes, including the local Mille Lacs Band of the Ojibwe, to identify and protect cultural resources at Camp Ripley. A predictive settlement model, built with Geographic Information Systems technology, defines probable past cultural sites and aids in the management of reservation lands today.



*"Telemetry sort of works like dialing in a radio station. In this case, we're trying to locate radio-collared animals," explains Brian Dirks, animal survey coordinator at Camp Ripley, Minnesota.*







*The ecosystem thrives at Blackwater Swamp and throughout McCrady Training Center in Columbia, South Carolina. The blue jay, fence lizard, bull thistle and tiger tail butterfly, eastern box turtle and sweet water lily are some of the colorful wildlife.*



- The Oregon Army National Guard conducted the first in-house cultural survey at Camp Biak and other National Guard training sites in central Oregon, resulting in the discovery of 12 prehistoric (before 1650 AD) archaeological sites and one historic site. The survey of 1,139 acres, conducted on foot, identified three sites eligible for inclusion on the National Register of Historic Places.
- The Hawaii Army National Guard protects endangered native plants and works aggressively to eradicate invasive (non-native) plants.
  - The endangered Pu`uka`a (Cyperus Tracythanthos) Sedge increased from 50 to 400 seedlings in the Diamond Head Crater wetland on Oahu through the cultivation efforts of the National Guard and civilian volunteers.
  - Only three wild Schiedea (pink carnation family) plants remain at Diamond Head Crater, but the National Guard is saving the species from extinction by creating new populations on Oahu and Maui.
  - At Keaukaha Military Reservation, Hilo, Hawaii, the National Guard conducts human “sweeps” of a 108-acre forest area to remove alien plant species.

*Environmentalist Cynthia Thurkins and facility manager Major Darryl Lindsey team up to identify and remove alien plant species at Keaukaha Military Reservation, Hilo, Hawaii.*





# Conservation Environmental Excellence



*Environmental specialist (officer candidate) Donna Wu focuses her efforts on protecting endangered plants such as the Pu`uka`a Sedge and Schiedea at Diamond Head Crater, Oahu, Hawaii.*

- The South Carolina Army National Guard conducts annual Monitoring Avian Productivity and Survivorship (MAPS) surveys with the state's Dept. of Natural Resources to characterize populations of migratory birds at McCrady Training Center. The MAPS surveys involve netting and banding the birds, which aid in producing habitat characteristics that are associated with successful breeding sites.
- The North Dakota Army National Guard significantly reduced the pesticides used to control the Leafy Spurge weed. Sheep are now the primary means of weed control at Camp Grafton South, near Devils Lake. The National Guard's land management initiative with North Dakota State University has spread across the Midwest as a means to facilitate cattle grazing.



*C o n s e r v a t i o n*  
*E n v i r o n m e n t a l E x c e l l e n c e*



*Army National Guard biologist Debbie Brewer helps revive the ecosystem at Florence Military Reservation, Arizona, by using the "guzzler," a non-leaking water source for native wildlife.*





## Cultural Resources

Preserving and restoring historic structures are integral to the Army National Guard's cultural resources program. Over 3,000 armories and other historic buildings exist in the United States that boast very distinctive, recognizable architecture. Old barracks still house National Guard troops. Hundreds of armories are now community centers, libraries, school buildings, museums and apartments. Dozens of armories constructed between 1877 and 1944 are on the National Register of Historic Places.



*One of two remaining towers at Jackson Barracks is used as VIP quarters.*

*The old Jackson Barracks was constructed in a manner characteristic of antebellum Louisiana: wide verandas, round and square columns, gabled and hipped roofs, with spacious interiors. Today, the Louisiana National Guard occupies 1834-vintage buildings.*

## Conservation Environmental Excellence

*Historic Camp Mabry, Texas, features cavalry-style buildings dating to 1918.*



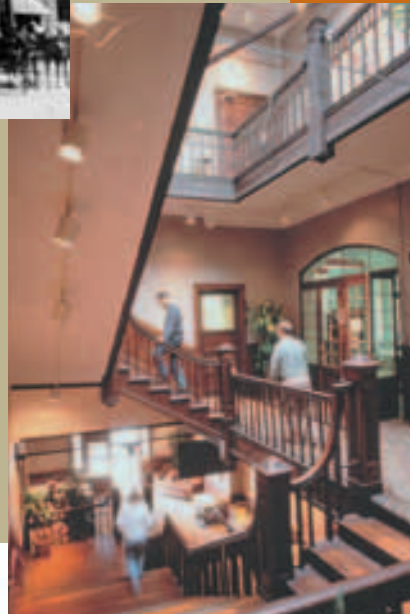


# Conservation



*Before: The Savannah Volunteer Guards Armory at Madison Square was built in 1893 and housed a succession of Georgia Army National Guard units until World War II. The Guards' regimental association owned the building and derived income to support its upkeep by renting space to commercial tenants.*

*After: The old armory was converted to the Savannah College of Art and Design in 1979. Today, it is part of the Savannah Historic Landmark District.*



*Army National Guard Armory, Utica, New York, built in 1930. Current home of the 2nd Battalion, 108th Infantry. Listed on the National Register of Historic Places.*

*Army National Guard Armory, Geneva, New York, built in 1892. Current home of E Troop, 101st Cavalry, 27th Brigade. Listed on the National Register of Historic Places.*





## Cultural Resources

**B**attery Harlow was built in 1910 on the outer, north-facing slope of Diamond Head, Oahu, Hawaii. It was the first coastal artillery site constructed on Oahu as part of the U.S. coastal defense network designed to protect the U.S. west coast in case of enemy attack from the sea. The Hawaii Army National Guard preserves the cultural site, which features an intact, operable, pre-World War I mechanical data transmission system for mortar firing control.



*Ben Skellington and the National Guard keep the gears greased at Battery Harlow, now part of the Fort Ruger Historic District.*



*Above left: Model 1890 M1 mortar shells had 12-inch projectiles that weighed 700 lbs.*



*Above center and right: Battery Harlow contained two concrete pits, each equipped with four mortars. The coastal artillery mortars could deliver high-angle fire against enemy ships up to ten miles away.*



## Cultural Resources

The Army National Guard balances environmental stewardship and training requirements by “clearing” land through archaeological surveys. Dr. Robert Estes (left) and colleagues from the University of New Mexico conduct surveys at Camel Tracks, New Mexico, a training site and former Pueblo settlement. Native American pottery is recovered and preserved in the Maxwell Museum of Anthropology in Albuquerque.







*The Army National Guard protects bald eagle nesting sites during training exercises at Camp Ripley, Minnesota, by establishing 400-meter buffer zones.*





## Camp Ripley, Minnesota

*Where training, conservation and community outreach thrive*

On the 53,000 acres at Camp Ripley, numerous wildlife species coexist with the Army National Guard's ongoing military training. Camp Ripley's environmental staff works closely with federal and state environmental agencies to ensure these species are protected. The installation provides unique opportunities for community groups to experience the splendid natural resources found at Camp Ripley.

The Minnesota Army National Guard shares its training land with the federally protected gray wolf. The Gray Wolf Project uses satellite and radio collars to study wolves and track their movements, which enables wolf dens and rendezvous sites to be located and protected. The National Guard also hosts local schools as part of the Eyes On Wildlife and Job Shadow programs, which allow students to conduct gray wolf research through Geographic Information Systems technology, telemetry and hands-on evaluations.

Camp Ripley's environmental staff and the state's Dept. of Natural Resources sponsor deer hunts for disabled veterans and youth. Both events provide opportunities for community members to experience the great outdoors and assist in the control of the deer population.



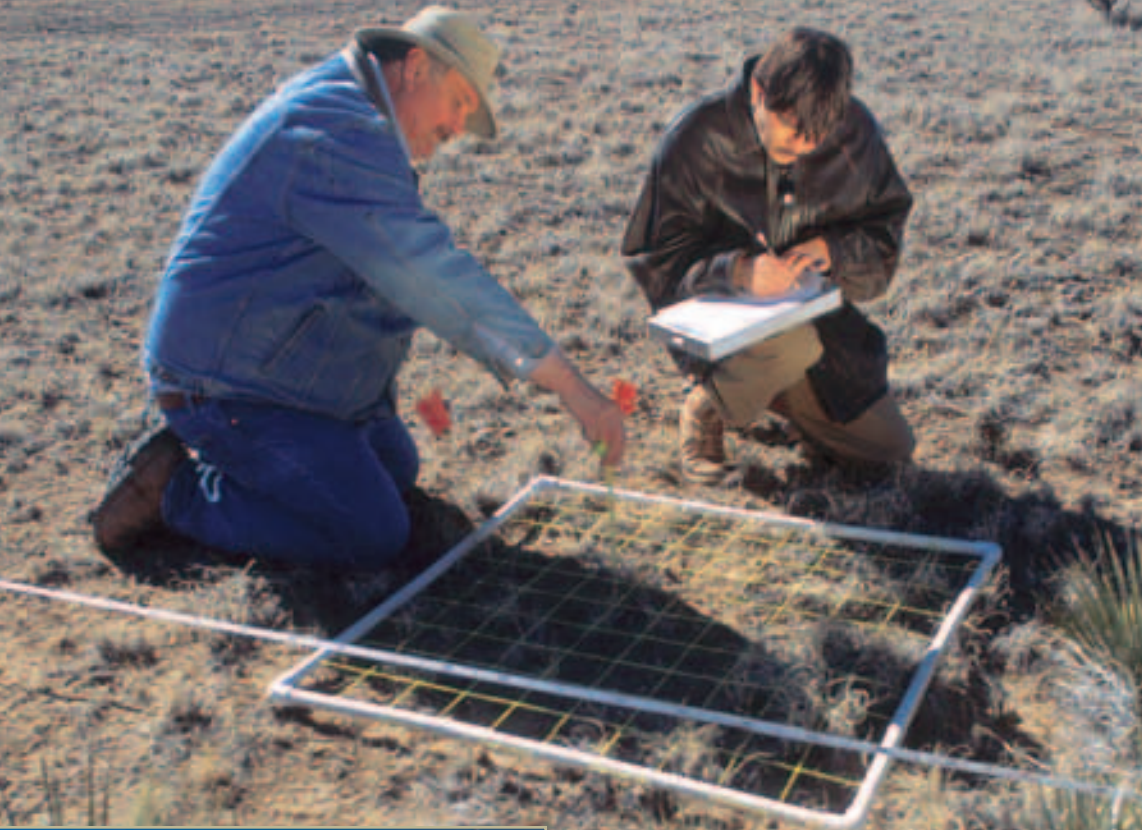
*"To be in this business for the long term, we have to take care of our resources and add value to the community," says Colonel Terry Dorenbush, former commander of Camp Ripley.*



*The black bear, gray wolf and osprey are just a few of the protected animals inhabiting Camp Ripley, Minnesota.*



*Conservation  
Environmental Excellence*



*Left: Ecologist Estevan Muldavin of the University of New Mexico and Roberto Concha, compliance assessment manager for the Army National Guard, conduct a vegetation delineation survey at Camel Tracks, near Santa Fe.*

*Above: The Cholla Cactus is a native tree-like plant that thrives at Camel Tracks.*

*Inset: The New Mexico Army National Guard accomplishes Patriot Missile air defense training and environmental protection through Integrated Training Area Management.*



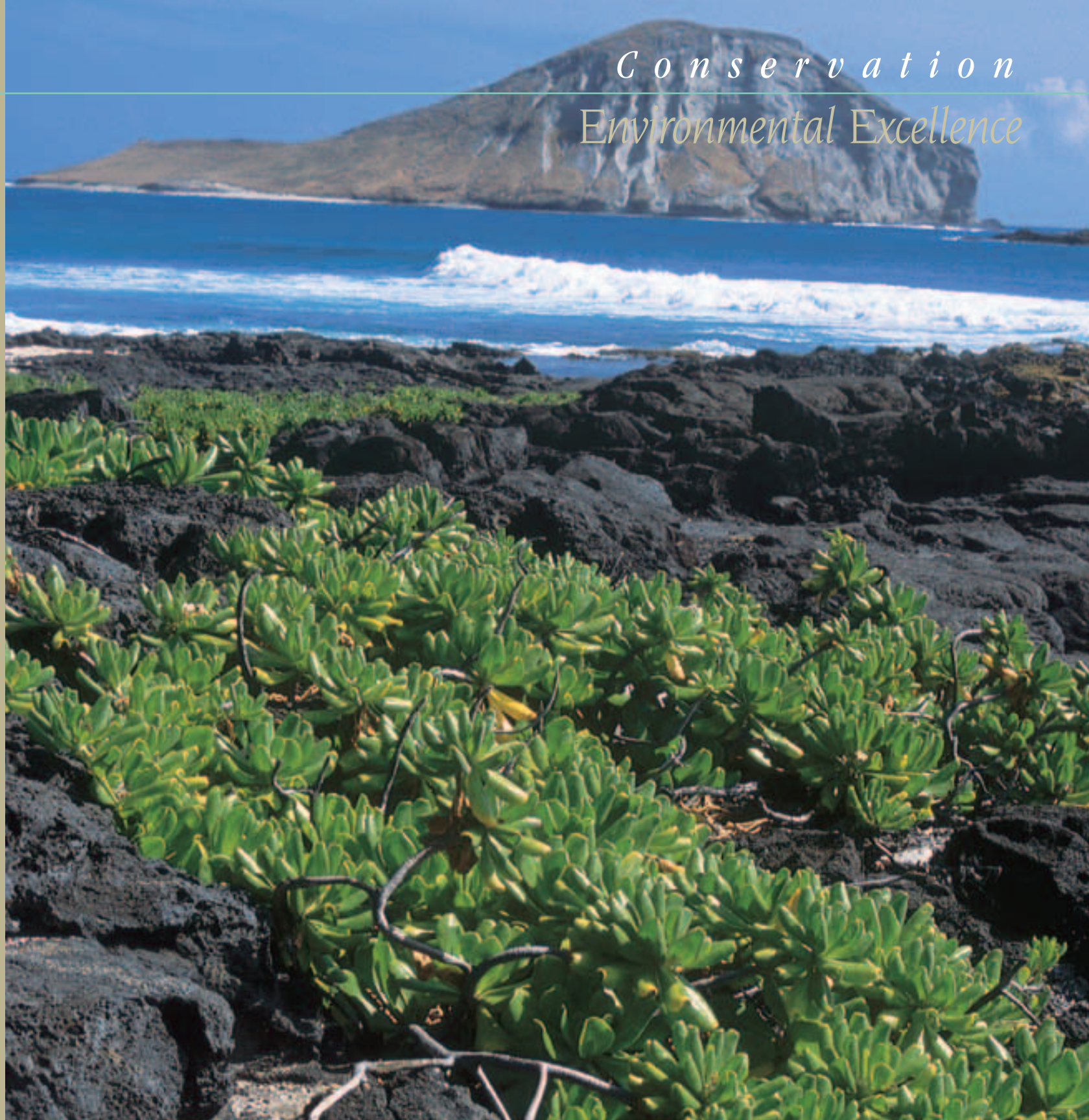




*The native Hawaiian Naupaka plant and lava add to the shoreline near the National Guard training site at Bellows Air Force Station, Oahu.*



*Tropical, non-native plants like the Red Torch Ginger flourish throughout the Hawaiian islands.*







*Prescribed burning at Camp Blanding, Florida, reduces fire hazards and encourages growth of the longleaf pine.*





## *Community Outreach*

*In New Mexico, part of the National Guard's environmental mission is to preserve and protect natural and cultural resources in the local communities.*







*The Alaska Army National Guard conducts combined-arms training with other components of the U.S. armed forces on Fort Richardson. The National Guard is also headquartered at the fort, situated amid aspen, birch and cottonwood trees, Lake Clunie and the majestic Chugach Mountains.*



*Conservation  
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*Archaeologists William Morgan and Alex Noury dig for Native American artifacts as part of a cultural resources survey at Camp Blanding, Florida.*





*Tank maneuvers on Idaho's Orchard Training Area are not allowed in sites that contain LEPA plants.*



*Idaho's 138,000-acre Orchard Training Area has a lot of sagebrush, which is vital to native desert wildlife like the badger. Idaho National Guard soldiers plant native shrubs in old burns that once had stands of sagebrush.*



*Healthy populations of LEPA, better known as slick-spot peppergrass, are found on Orchard Training Area. The Idaho National Guard conducts a LEPA field seed germination study, using protective wire-mesh cones, to prevent rodents from eating the seeds. Elsewhere in the state, LEPA is dwindling in numbers.*





# Conservation Environmental Excellence



*The Idaho Army National Guard at Orchard Training Area is host to several birds of prey, including the ferruginous hawk and short-eared owl.*



*The Arkansas Army National Guard at Camp Robinson initiated an urban deer management program to control the white-tailed deer population. Vehicle collisions with the deer and evidence of tick-borne diseases were major safety concerns that prompted the National Guard to implement conservation measures with the Arkansas Game and Fish Commission.*

*The California Army National Guard at Camp Roberts takes protective steps to ensure military training does not impact the endangered kit fox. A National Guard biologist, accredited by the U.S. Fish and Wildlife Service, conducts pre-exercise and follow-up surveys to locate, secure and monitor suspected kit fox dens.*



## *Restoration*

The Army National Guard's Installation Restoration Program involves identification of sites contaminated by past Dept. of Defense operations. In close

coordination with state and federal regulators, environmental professionals ensure that contaminated soil, surface water and groundwater are cleaned to levels fully protective of human health and the environment.



*Bill Gendron and Greg de la Paz perform routine maintenance on the Dual Phase Vacuum Extraction system at Los Alamitos Training Center, California.*





**Restoration successes:**

- The California Army National Guard at Los Alamitos Training Center operates a cleanup system at the former JP-4 (jet fuel) tank farm consisting of Dual Phase Vacuum Extraction (DPVE), air sparging and groundwater extraction. Since 1995, 2,900,000 gallons of groundwater have been extracted and treated at the site, preventing migration to the community. Phytoremediation, a natural cleanup system that uses poplar trees, will eventually replace the DPVE to treat the remaining levels of contamination in the groundwater.
- The Arizona Army National Guard at Camp Navajo cleaned up 6,100 tons of the explosive TNT (Trinitrotoluene) by composting the excavated soil with vegetables, straw, wood chips and manure. This unusual, but cost-effective and quick cleanup recipe,

reduced TNT concentrations from more than 5,000 parts per million to under 10 parts per million in just 11 days.



*Kevin Martin monitors filtration on the Dual Phase Vacuum Extraction system at Los Alamitos Training Center, California.*



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- The Massachusetts Army National Guard at Camp Edwards locates and removes unexploded ordnance as part of the Impact Area Groundwater Study Program's investigation and cleanup of contamination from explosives and other chemicals. Air and ground magnetometer surveys are employed to locate sub-surface munitions. A natural resource specialist provides oversight during excavation, which minimizes environmental impacts.



*Jerry Krieger and Jeffrey Kennedy (right) conduct magnetometry surveys at a former Camp Edwards, Massachusetts, training range to locate sub-surface munitions.*

*Mario Villarreal and Ray O'Brien (left) remove inert munitions, which are later recycled as scrap. Unexploded ordnance is destroyed.*







## Innovative Techniques and Technologies

**Dual Phase Vacuum Extraction** places a high vacuum on the subsurface soils to extract soil vapor and groundwater from soil pores. This approach overcomes some of the obstacles of traditional vapor extraction by allowing larger well spacing and improving the removal of contaminated pore water from the subsurface.

**Free Product Recovery** is used to recover fuel product that floats on the water table as a result of fuel spills

and leaking fuel tanks. Skimmers, passive bailers, hydrophobic sorbent socks and vacuum extraction are all recovery methods, often used with other remediation techniques.

**Phytoremediation** is a natural system of extracting contaminants from groundwater through the roots of plants and trees. As roots expand, they provide more oxygen for bacteria to grow and the contaminants naturally degrade as they move up the core. The aim is for trees such as poplars to replace mechanical cleanup systems, which will save on operational costs, eliminate noise and beautify the environment.

*Chuck Keohan samples soil at a munitions excavation site to determine if remedial actions are required.*





*Dr. Roman Pasteka searches for unexploded ordnance on the ridge of Limestone Hills Training Range, Montana, aided by a “quad-sensor, optically pumped cesium vapor magnetometer.”*

*The Elkhorn Mountains provide a striking backdrop for the Montana Army National Guard’s Limestone Hills Training Range.*





## **Innovative Readiness Training**

### ***Training that benefits the community***

It's not uncommon for military training to occur off Army National Guard installations. The Innovative Readiness Training program enables National Guard units to conduct construction, medical, transportation and maintenance training missions in the local communities, which benefits civilian organizations and sustains the National Guard's mission preparedness.

*The Army National Guard builds artificial reefs off the South Carolina coast using stripped, surplus track vehicles such as the M-60 tank.*





*Highlights:*

- The South Carolina Army National Guard and the state's Dept. of Natural Resources build artificial reefs off the South Carolina coast using stripped, surplus military equipment such as M-60 tanks and Armored Personnel Carriers. The Reef-X (reef exercise) creates habitat for marine life and facilitates recreational fishing.
- The Alaska Army National Guard removed 262 junk vehicles, more than 71,000 pounds of metal and 74 old appliances that were abandoned along trails, roads, and rivers in Matanuska-Susitna Borough. The scrap was loaded on a barge and shipped to the state of Washington for recycling.
- The South Dakota Army National Guard's community cleanup projects include removal of 3.5 tons of iron from a demolished bridge in Custer State Park, clearing trees that were impeding water flow in Garden Creek and recycling scrap metal from Rosebud Indian Reservation.
- The Ohio Army National Guard renovated the grounds of Hillcrest Civil War Cemetery by rebuilding culverts and digging drainage ditches.

## Community Involvement

### *Essential to the decision-making process*

The National Environmental Policy Act (NEPA) requires federal agencies to analyze the potential environmental impacts that may occur from implementing proposed major actions or feasible alternatives. Community involvement is essential to fulfilling NEPA requirements. Before the Army National Guard makes a decision on a proposed action, the public must have the opportunity to review the proposal and provide comments. Our philosophy is to involve the public as early as possible in the decision-making process and to keep communities aware of ongoing projects. For example:

The Mississippi Army National Guard at Camp Shelby produced an Environmental Impact Statement (EIS) with the U.S. Forest Service for the site selection and construction of a 1,800-acre, multi-purpose range complex. The combined-arms training range is the first of its kind at a National Guard training center, supporting tanks, artillery, infantry and helicopters. From the beginning until the end, the public participated in the EIS process. The National Guard held four public meetings to discuss concerns about safety, noise and relocation of wildlife habitat before issuing a record of decision.





## On The Horizon

The Army National Guard will continue to excel in environmental stewardship by implementing Environmental Management Systems (EMS). The aim of EMS is to enhance Army National Guard readiness and environmental practices by linking mission priorities and environmental management requirements.

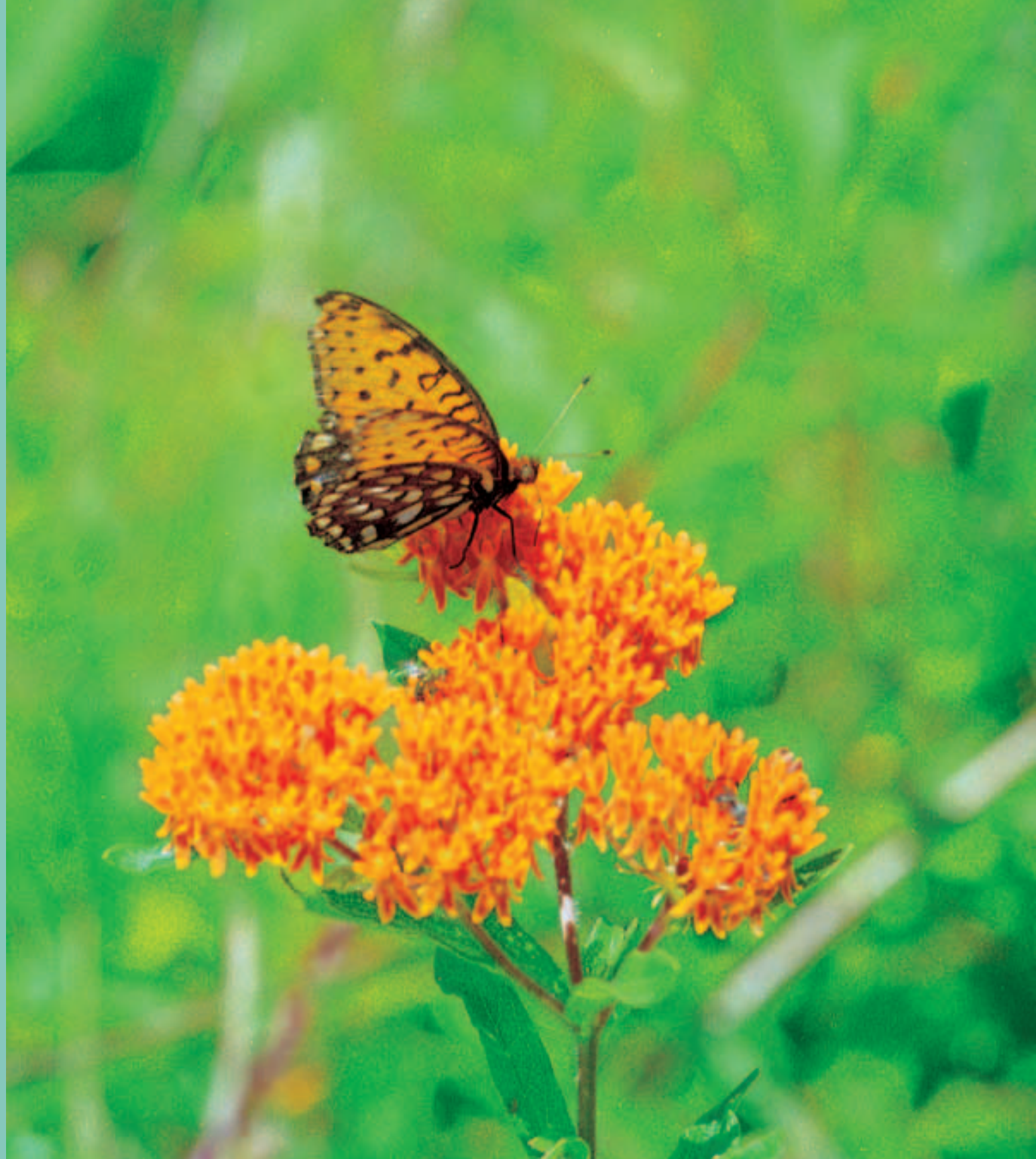
The Army National Guard will first meet the requirements of Executive Order 13148, “Greening the Government through Leadership in Environmental Management,” before starting EMS at Guard locations. The goal is to adopt the internationally recognized management system standard, ISO 14001, by fiscal year 2009.

*The Tennessee Army National Guard protects the Eggert's Sunflower, a federally listed threatened species at Tullahoma Training Site.*





*The Pennsylvania Army National Guard at Ft. Indiantown Gap set aside 250 acres of prime training land for butterfly habitat. Today, Ft. Indiantown Gap is home to the last known colony of the Regal Fritillary east of the Mississippi. Yellow signs delineate grassland areas that are off limits to mechanized training.*





# ARMY NATIONAL GUARD

## Photo Credits

Bill Gossweiler: p.32

Bob Haskell, National Guard Bureau: p.21 (bottom right)

Bryan Hall, South Carolina Army National Guard: front cover, p.1 (lower right), 18, 41, 42

Catherine Beaudoin, Maxwell Museum, University of New Mexico: p.25 (1315 AD large)

Chris Cleaver, Pennsylvania National Guard: p.44

Clif Youmans, Montana Army National Guard: p.40

Dana Quinney, Idaho Army National Guard: p.34 (right)

Daniel Stoute, Louisiana Army National Guard: p.22 (top left, bottom right)

Guild Communications: intro (buffalo), p.3, 4, 5, 7 (left), 9-10, 11 (right), 13 (left), 15-17, 20 (right), 21 (left), 22 (top right), 27 (left), 29 (right), 30, 31 (right), 33, 36-39, 41 (inset), back cover

Jay Weaver, Idaho Army National Guard: p.34 (center right), 35 (top center; right)

Jim Wiley, U.S. Geological Survey, p. 14 (inset)

Luis Orengo, Puerto Rico Army National Guard: p.14 (top, lower left)

Minnesota Army National Guard: p.27 (bottom left; right)

National Guard Bureau Photo Archive: p.26 (top left), 31 (bottom left)

Peggy A. Gerow, Maxwell Museum, University of New Mexico: p.25 (1050 AD, 1315 AD small, 1325 AD, 1425 AD)

Rick Breitenfeldt, National Guard Bureau: p.29 (top left)

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Scott Quinney, Idaho Army National Guard: p.34 (top left, center left, bottom left, inset)

Tennessee Army National Guard: p.43

Tom Roberts, National Guard Bureau: p.1 (top, bottom left)

U.S. Army Museum of Hawaii: p.24 (black and white)

U.S. Fish and Wildlife Service: p.21 (top right); Dave Menke, 26 (bottom left; right); John and Karen Hollingsworth, 27 (top); B. Peterson, 35 (left); Jesse Achtenberg, (bottom right)

Visual Information Support Center, Army National Guard: p.23 (top, bottom right)

## Production

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# The National Guard

## *Ready, reliable and relevant...*

**I**n addition to supporting Homeland Security and the Global War on Terrorism, the National Guard is committed to sustaining a ready, reliable and relevant force for the 21st century. We are transforming the way we fight, the way we do business and the way we work with others so we can be a more efficient and accessible joint force. As we continue to conduct rigorous training on lands across America, we are also committed to safeguarding the environment for generations of Americans to come.



*Environmental specialist (officer candidate) Donna Wu envisions a Hawaii where native plants thrive.*



# *Our Environmental Vision*

*Lead the Army with unmatched environmental excellence that benefits our customers, communities and employees.*

Back Cover:

*The sun always sets on Papago  
Military Reservation in Phoenix, Arizona.*





*Environmental Excellence*

**Army National Guard**