

FISCAL YEAR 2005 SECRETARY OF DEFENSE
US ARMY ENVIRONMENTAL AWARDS NOMINATION



MINNESOTA ARMY NATIONAL GUARD
NATURAL RESOURCES
CONSERVATION TEAM
NATURAL RESOURCES CONSERVATION



SUSTAINING
THE ENVIRONMENT
FOR A SECURE FUTURE

INTRODUCTION

The Minnesota Army National Guard (MNARNG) Natural Resource Conservation Team is located at Camp Ripley, a 52,758-acre training site, and at Arden Hills Army Training Site (AHATS), a 1,500-acre training site located in metropolitan Minneapolis. The Natural Resource Conservation Team is part of the Minnesota National Guard environmental office. Due to its size and mission within the MNARNG, Camp Ripley is the primary focus of the team. In addition to serving as a military training site, Camp Ripley is the second largest statutory game refuge in the state and has a significant economic influence as one of the largest employers in central Minnesota. Based on the 2005 economic impact statement, Camp Ripley contributes more than \$180 million to the local economy.

BACKGROUND

The Natural Resource Conservation Team includes the following members:

- Col. Rich Weaver, MNARNG, Post Commander;
- Capt. Keith Ferdon, MNARNG, Training Area Coordinator, Integrated Training, Area Management (ITAM) Coordinator;
- Staff Sgt. Jamie LeClair, MNARNG, Training Area Coordinator, AHATS;
- John Ebert, MNARNG, Environmental Director;
- Marty Skoglund, MNARNG, Environmental Supervisor;
- Dave Hamernick, MNARNG, Environmental Program Administrator;
- Jay Brezinka, MNARNG, Natural Resources Specialist
- Bill Brown, MNARNG, Cultural Resources Specialist;
- Craig Erickson, MNARNG, Geographic Information Systems (GIS) Manager;
- Brian Dirks, Minnesota Department of Natural Resources (MNDNR), Animal Survey Coordinator;
- Julie DeJong, MNDNR, Animal Survey Assistant;
- Tim Notch, The Nature Conservancy, Land Steward;
- Lee Anderson, St. Cloud State University, GIS Specialist; and
- Tom Rothleutner, MNARNG, Facilities Manager

POSITION DESCRIPTION

The Natural Resource Conservation Team at Camp Ripley monitors all natural conservation programs for MNARNG statewide. The team is involved in land rehabilitation and maintenance and is responsible for planning, designing and implementing monitoring programs for all flora and fauna on Camp Ripley and AHATS. During the achievement period, the team's responsibilities included restoring land damaged from training activities, correcting serious erosion problems and conducting annual assessment projects. Challenged with maintaining varied ecosystems and essential training activities, the Natural Resource Conservation Team approaches its mission with a focus on sustainability, community outreach and partnership (see Figure 1 below).

Figure 1. Natural Resources Conservation Partnerships

Partner	Cooperative Activities
Minnesota Department of Natural Resources	Conducting baseline surveys, assisting with bird and animal surveys; large-scale Land Condition Trend Analysis monitoring; lead cooperative partner on Army Compatible Use Buffer program.
The Nature Conservancy	Prescribed burning training and assistance; developing forest inventory and animal surveys for the red-shouldered hawk and Blanding's turtle. Army Compatible Use Buffer partner.
St. Cloud State University	GIS support and training; hosted national geographic information system training seminar on behalf of National Guard Bureau; geographic information system assistance in animal and vegetation surveys, invasive species management and water quality trend analysis.
Central Lakes College	Natural resources management students intern in the MNARNG environmental office in all conservation activities.
US Fish & Wildlife Service	Partner in native grass seed harvesting; partner in annual Habitat Day; development and review of the INRMP.
Veterans' Administration	Helps conduct annual veterans' deer hunt and turkey hunts at Camp Ripley, the first of their kind on a military installation.
Minnesota Deer Hunters' Association & Minnesota State Archery Association	Co-sponsors in holding youth deer hunts at Camp Ripley and first ever youth deer hunting opportunity in metro area Arden Hills Army Training Site.
Mille Lacs Band of Ojibwe (Native American Tribe)	Provides advice and recommendations on natural resources conservation activities that relate to tribal interests; uses Camp Ripley as a youth training site for lessons in wildlife and land management.

AWARDS AND SERVICES

Team members continually receive recognition and awards for their commitment to their cause and service. The team won the 2004 National Guard Bureau Environmental Security Award for Natural Resource Conservation-Large Installation. In 2004, the team was nominated by the US Fish and Wildlife Service (USFWS) for the Department of Defense (DoD) Conservation Installation of the Year. The team is a co-sponsor with the USFWS of the annual Habitat Day at the Crane Meadows Wildlife Refuge, a public event that attracts hundreds of attendees.

“The people and natural resources of the great state of Minnesota benefit in many ways from the cooperative partnership of the Minnesota Army National Guard and the Minnesota Department of Natural Resources. We value this relationship and are committed to build upon it for future generations of Americans.”
 - Gene Merriam, MNDNR Commissioner

In FY 2003, the conservation program was featured in the first Army National Guard Environmental Excellence Documentary designed and produced by the Public Affairs Office of the National Guard Bureau. This recognition resulted in two television features of the Camp Ripley conservation program in FY 2004: the Minnesota Bound television program and the first-ever Brainerd Bound documentary.

ACCOMPLISHMENTS

Overall Conservation Management

Integrated Natural Resource Management Plans (INRMP) at Camp Ripley and AHATS provide the foundation for managing natural resources. The team prepared the INRMPs in-house, including the completion of environmental review requirements. The INRMPs not only include all the components of Army Regulations but were also developed in concert with the Site Development Plans for the installations to achieve a desired future condition for the military mission. This appealed to Soldiers training at Camp Ripley and AHATS and has enhanced community relations by showing a scientifically based plan for natural resources management compatible with a larger landscape.

Projects within the INRMPs are fiscally efficient to the Army because they are transferable to land managers at other military installations. The projects have been featured at national conferences in FY 2004 and 2005 (e.g., ITAM conferences, conservation workshops and community outreach workshops).

Camp Ripley has established a leadership role in the application of GIS, having completed the first enterprise GIS management plan within the National Guard in FY 2005. Camp Ripley’s GIS operator has expanded applications throughout all disciplines within the Minnesota National Guard, from planning military exercises to facilities management. This has been possible through an interagency agreement with St. Cloud State University, which provides fulltime GIS project support. The GIS operator provides spatial information and applications to help support decision making concerning natural resource management initiatives such as forest management, cultural resource management and wildlife habitat analysis.



St. Cloud State University's Outlook Magazine featured a unique partnership between the university and Camp Ripley in its fall 2005 issue. Faculty and graduate students collect and analyze plant and animal data on Camp Ripley's 52,758 acres and provide it to the installation, which uses the research to demonstrate it is maintaining a healthy ecosystem.

Land Use Management

Land rehabilitation and maintenance (LRAM) activities performed by the team during the achievement period reduced sedimentation rates to pre-settlement conditions on Camp Ripley. Achieving over 50 percent savings as a result of doing land rehabilitation and erosion work in-house, LRAM is the most critical element of the Sustainable Range Program since it enables team members to accomplish repairs to the landscape that are

caused by training exercises. The in-house team has been able to accomplish projects more efficiently than outside service providers, providing significant benefit to the military. For example, the team began work on an erosion problem along the Mississippi River in FY 2003 and completed the project in FY 2005 at a cost of \$138,000. Based on estimates, this project would have cost \$300,000 if it had been performed by an outside contractor.

Forest Management

The team developed a forest management plan for Camp Ripley in FY 2003 both to promote good silvicultural practices and to ensure compatibility with Camp Ripley’s military mission. Harvests are designed by considering land use, wildlife, visual concerns, aesthetics, best management practices and prevention of site damage. The team began implementing the plan in FY 2004 with many improvements, including forest reshaping, new tree plantings and fencing construction to protect new trees from deer. These actions are ongoing, with the exception of the deer proofing project, which was completed in FY 2005. The team sculpts the forested landscape to achieve a desired condition for the benefit of training using heavy duty brush cutting equipment that literally grinds trees, brush and stumps within the area of interest.

The team continues to use forest management to maintain habitat for the red-shouldered hawk, a state-listed species of special concern. Red-shouldered hawk populations are projected to decline under all timber harvesting scenarios for Minnesota for the next 50 years. Camp Ripley maintains the largest breeding population of red-shouldered hawks in the state, due to its large intact stands of forest.



Camp Ripley maintains the largest breeding population of red-shouldered hawks in the state.

In FY 2004, Minnesota Department of Natural Resources biologists partnered with the Minnesota

National Guard Bureau to track the birds as they migrate, allowing them to determine the factors that affect population declines.

In FY 2004 and 2005, the team implemented a commercial forestry program to achieve forest thinning and desired future condition in support of military training. This has resulted in harvesting 3,000 to 4,000 cords of timber and has generated over \$650,000 in revenue to the state general fund.

In FY 2004 and 2005, the team performed prescribed burns for ecological enhancement and hazard reduction covering up to 15,000 acres per year. Those prescribed burns not only maintain the natural prairie ecosystem, but also ensure troops are able to continue training safely in ideal conditions by reducing fire hazards.

Fish and Wildlife

With a population of 30 deer per square mile and a reputation for trophy bucks, Camp Ripley has been nationally recognized as having a remarkably healthy deer herd. Also, Camp Ripley’s wild turkey population has grown exponentially since releases were made outside of the installation in the late 1990s. Turkeys from Camp Ripley will soon be used to stock other areas in the state. Camp Ripley and Arden Hills host impressive numbers of birds (more than 200 species at Camp Ripley) throughout various times of the year, and in FY 2004 and 2005, both were nominated as Important Bird Areas by the Audubon Society.

Perhaps the best example of biodiversity and compatibility with training at Camp Ripley is the existence of a thriving gray wolf population in the heart of an active training area. While the presence of a threatened species such as the gray wolf could have negatively impacted training in the absence of sound research, the team has provided scientific evidence that the gray wolf population has greatly benefited from military land use practices.



Two packs of wolves are thriving on Camp Ripley, coexisting with troops in training.

The team properly applies land protection and maintenance measures on Camp Ripley, which provides an island of optimum wolf habitat in a highly populated and fragmented landscape. The team's gray wolf tracking and monitoring program, one of the only such programs in the nation, has determined that the wolves have adapted to all regional habitats and are thriving, even in habitat areas that were once considered unacceptable. Camp Ripley's gray wolf population represents the southern-most pack of gray wolves in Minnesota and the only breeding population of gray wolves on any military installation in the lower 48 states.

Camp Ripley is also home to four pairs of nesting eagles, which, during essential nesting periods, are protected from inadvertent disruptions due to military training through the use of buffer zones.

Other protected species include the state-listed tiger beetles, jumping spiders, Blanding's turtles, hooded warblers, yellow rails, red-shouldered hawks, prairie voles and various mussels and plants. Habitat for all protected species has been

"Camp Ripley is home for two federally listed species, including the bald eagle and the gray wolf. Both of these species are thriving on the base, in large part due to the work of your environmental staff working with all people that use the Camp for training."

-Dan P. Stinnett
Field Supervisor, US Fish and Wildlife Service

identified, and individual management plans are in use for each species. Animal surveys conducted in FY 2004 and FY 2005 provide a basis for understanding the population dynamics of these species.

Invasive Species Control and Pest Management

Camp Ripley researchers tested invasive species control methods on individual test plots during the last two fiscal years, and they are continuing to look for the right mix of chemical, biological and mechanical control. Biological and mechanical pest control techniques are favored in addressing invasive plant species. For example, Camp Ripley is using a biological control involving insect release for purple loosestrife. These methods have enabled

MNARNG to reduce the pounds of active ingredients of pesticides from 600 pounds per year to less than 100 pounds per year, thereby achieving the DoD Measure of Merit calling for a 50 percent reduction.

To monitor the prevalence of tick-borne diseases, the team has implemented a Lyme Disease Risk Assessment Survey. Camp Ripley now has the largest database on tick infestation in the state of Minnesota. Camp Ripley continues to partner with the US Army Center for Health Promotion and Preventive Medicine, the University of Minnesota and the Minnesota Department of Health to monitor frequencies of tick-borne diseases such as Lyme and Human Granulocytic Ehrlichiosis. During the last two years, the team established a monitoring program for West Nile Virus, a growing concern in mosquito-infested territories.

Community Relations

Camp Ripley is proud to be a leader in its environmentally conscious community. At the local level, Camp Ripley has been named an eco-tourism destination by local government, providing field tours and educational materials to visitors. The team hosts annual deer and turkey hunts for disabled veterans at Camp Ripley, the first of their kind in Minnesota. The team also hosted the 2004 and 2005 archery deer hunts for youth at AHATS and Camp Ripley. In 2004 and 2005, the team was a co-sponsor of the annual Habitat Day at the Crane Meadows Wildlife Refuge. The USFWS is the primary host of this public event, which attracts hundreds of attendees who help create wildlife habitat.

"The MN National Guard was the first organization to sponsor a youth hunt for whitetail deer in the state of MN. Since then, there have been over 10 youth hunts sponsored throughout the state by other state, federal and non-profit organizations. The success of that hunt was not in harvesting deer but in the memories and the smiles on the faces of the youth and their mentors. This effort has created many future outdoor enthusiasts. I applaud the MN National Guard for leading the charge."

- Mark Johnson, Executive Director,
Minnesota Deer Hunters' Association

Conservation Education

Students and interest groups throughout the state travel to Camp Ripley to learn about protecting and managing the environment. Hundreds of school and community groups use Camp Ripley each year to learn about the environment through guided tours and bird watching adventures. An environmental learning center was expanded and updated in FY 2004-2005, and now contains approximately 200 bird and 60 mammal specimens, plus collections of fish,

butterflies and dragonflies. Approximately 10,000 to 15,000 people visit the classroom each year and are able to learn more about the National Guard, Camp Ripley and the environment.



Little Falls High School students build a nature trail on Camp Ripley as part of a bog-walk project on National Public Lands Day.

Mission Enhancement

Throughout the growth and diversification of the team’s activities, the link to its military mission has never been forgotten. Sustainability of natural vegetative cover has been a top priority in all planning efforts to ensure a realistic training environment and quality wildlife habitat. All natural resources conservation activities are designed to maintain and enhance training areas for Soldiers, thus serving the military mission. By creating training area options, the team also allowed for relief to over-used areas. Planning ensured that no adverse environmental impacts occurred due to landscaping changes.

The team also invests in its relationships with the surrounding community to ensure that forces outside the installation do not hamper training. One such positive community relationship derives from the team’s participation in the Army Compatible Use Buffer (ACUB) program, a federal program that authorizes a military installation to enter into agreements with landowners to limit encroachment on lands neighboring the installation. Camp Ripley has the distinct honor of being the second

installation in the nation to have an ACUB approved by the Army and DoD. Limiting incompatible land uses such as residential development near the installation is essential to ensuring continued training at this installation in the future. Military training, with its typical byproducts of noise, dust and smoke, would not be sustainable adjacent to most residential or commercial uses of land.

ACUB implementation began in 2004 and continued in 2005. The program addresses the pressure of development outside the boundaries of Camp Ripley. Two neighboring counties have permanently set aside more than 17,000 acres of land with an estimated market value of \$35 million for the Camp Ripley ACUB, at no expense to MNARNG. In addition, other local partners secured approximately 1,800 acres in the ACUB area at an estimated cost of \$2.5 million. The program has been embraced by local county government representatives, demonstrating Camp Ripley’s positive relationship with the community. Additionally, more than 115 private property owners have volunteered to participate in the ACUB to date, representing approximately 18,000 acres of land.

The Camp Ripley ACUB takes the relationship between conservation and readiness to the next level, simultaneously preserving undeveloped land and ensuring excellent training areas in perpetuity. The team worked with planners and trainers to create specific training areas while still maintaining ecological integrity.

CONCLUSION

The success of MNARNG’s Natural Resource Conservation Team reflects a strong commitment to conservation of current resources. The team’s leadership in natural resource management has enhanced quality of life for the installation and the community. Components of the program integrate installation chain-of-command with the interests of resource management agencies, private conservation groups, regulatory agencies and the local community to conserve resources while providing an optimal atmosphere for military training and readiness.

On the cover: Chief Warrant Officer Kelly Nokes, a Minnesota National Guard pilot, cleans snow off a Blackhawk helicopter.