

**SECRETARY OF DEFENSE  
ENVIRONMENTAL SECURITY AWARD FY 2000**

**Army Nomination for  
Cultural Resources Management – Team**

**FORT McCOY, WISCONSIN**



*Opening ceremony preceding signing of MOU formalizing government-to-government relations between the Ho-Chunk Nation and Fort McCoy.*

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## INTRODUCTION

Fort McCoy is one of few locations in the country where Army Reserve Forces can train over highly varied terrain in a full range of weather conditions. The same characteristics that make this landscape appealing to the military have attracted peoples and cultures to the area for thousands of years. Fort McCoy's cultural resources, from prehistoric archaeological sites to WWI and WWII military training facilities, are evidence of our rich and diverse history. Although cultural resources preservation and military training are often thought of as competing interests, the Fort McCoy Cultural Resources Management (CRM) Team has recently demonstrated that not only are military training and CRM compatible, CRM can actually contribute significantly to military readiness. The Team has brought maturity and breadth to the Fort McCoy CRM Program while ensuring that the military mission is fully supported. During the past three years, the Team has:

- Developed and implemented procedures to evaluate historic properties immediately following identification, thereby saving time and expeditiously freeing land for training.
- Implemented a prehistoric archaeological site predictive model that significantly reduces both acreage requiring intensive survey and costs.
- Created the Army Template Integrated Cultural Resources Management Plan (ICRMP), an electronic document that other Army facilities are using to complete their ICRMP requirements.
- Completed the documentation of buildings and structures controlled by Regional Support Command (RSC) facilities in four states. During collection of field data, the team also developed a methodology for standardized building recordation.
- Evaluated 154 archaeological sites for National Register eligibility, significantly reducing the number of sites that require protection and impede training activities.
- Facilitated signing of an MOU between Fort McCoy and the Ho-Chunk Nation establishing formal government-to-government relations and providing the foundation for an effective working relationship that fosters direct communication for quick resolution of potential problems.
- Reanalyzed and documented all diagnostic artifacts from older portions of the collection prior to placement in a permanent repository, significantly enhancing the artifacts' research value.
- Significantly contributed to the professional dialogue on regional archaeology and participated in public outreach endeavors.
- Evaluated a historic industrial complex utilizing an all-volunteer crew, promoting positive public relations for Fort McCoy and focusing national media attention on Fort McCoy's land management practices.



## POSITION DESCRIPTION

The Fort McCoy CRM Team consists of historic preservation professionals organized in a cooperative setting to proactively manage installation cultural resources. Team goals include:

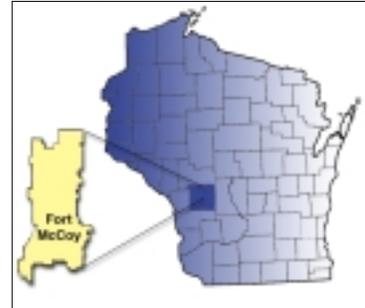
- Inventory and evaluation of project sites, ensuring mission support and protection of historic properties;
- In-house documentation and analysis of recovered cultural materials;
- Integration with Training staff to ensure mission requirements are supported;
- Incorporation of cultural resources data into the installation Geographic Information System (GIS) to improve the dissemination of land management data; and

- Consultation with Native American tribes in a government-to-government setting in support of the installation mission.

## BACKGROUND

Occupying approximately 60,000 acres of land in Monroe County, Wisconsin, Fort McCoy was established in 1908 as an army field-artillery target range and has served as an Army training post for combat units in every war of the twentieth century. Fort McCoy's present mission is to serve as a "Total Force Training Center" and power-projection platform for members of the United States Army Reserve Command (USARC).

The Fort McCoy Cultural Resources Program (CRP) is organized within the Directorate of Training and Mobilization (DTM). The CRP mission is to facilitate compliance with cultural resources legal requirements in order to maintain the availability of Army land areas necessary to sustain a state of combat readiness, and to provide professional CRM services to USARC RSCs and other federal agencies.



*Fort McCoy is located in west-central Wisconsin.*

The Fort McCoy CRM Team includes:

- Dell Greek, M.S., RPA, Archaeologist, Army Civil Service;
- Ryan Howell, M.A., RPA, Archaeologist, ORISE;
- Andrew Sewell M.S., RPA, Archaeologist, ORISE;
- Andrea Den Otter, B.S., Architectural Historian, Colorado State University;
- Jason Tish, B.S., Architectural Historian, Colorado State University;
- Stephen Wagner, M.S., Archaeologist, Colorado State University; and
- Karyn Caldwell, M.S., RPA, Archaeologist, Colorado State University.

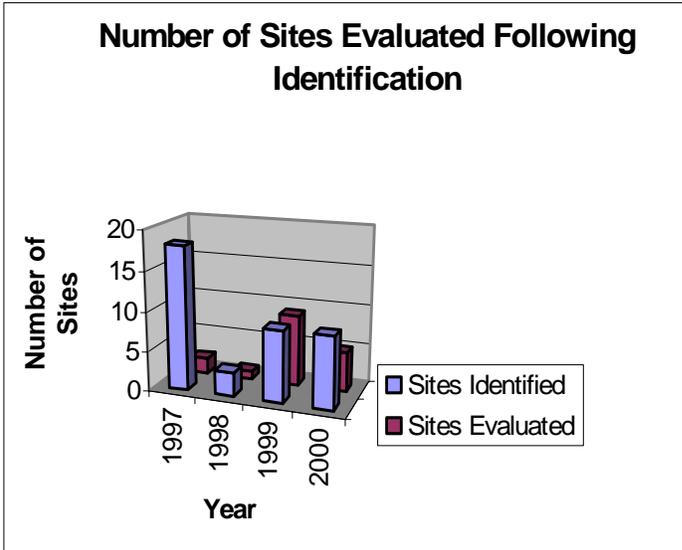


*Team members from left: Jason Tish, Andrea Den Otter, Karyn Caldwell, Dell Greek, Andy Sewell, Ryan Howell, and Stephen Wagner.*

**TEAM ACCOMPLISHMENTS:**  
**Overall Cultural Resources Management**

Over the past three years, the Fort McCoy Team developed CRM practices designed to ensure support of the military mission while protecting historic properties. Previous management strategies relied on traditional approaches that were redundant and costly. The new practices enhance mission support by reducing time required for site identification and evaluation, and limiting costs.

**The Fort McCoy CRM Team emphasizes support of the military mission while protecting historic properties.**



In past years, site evaluations were postponed pending fund availability, and activities within site areas were restricted. In 1999, the Team instituted a practice whereby historic properties were evaluated immediately following identification. Funding for this practice is accomplished by coordinating identification and evaluation surveys in the annual Environmental Program Requirements (EPR) submission cycle. The identification field team completes inventories for all projects on the installation annual work plan, as well as unscheduled surveys in response to unanticipated mission requirements. The evaluation team investigates sites identified during on-going field inventories, as well as sites that remained unevaluated prior to the

initiation of this policy. Savings accrued from this policy include immediate mission availability of lands where identified sites were determined not eligible for the National Register (NR), elimination of site relocation time, and efficient and focused data collection arising from familiarity with site environment and cultural features.

For the past three years, the CRM Team has limited archaeological site excavation to the extent sufficient to provide a Determination of Eligibility (DOE). Conserving maximum site area during DOE investigations ensures that sufficient portions of a site remain intact to adequately address research inquiries. Funds that would otherwise be spent on completely excavating sites already determined eligible are then available for additional excavations and survey. We are presently seeking alternative funding sources such as state grants to pursue research interests at sites with unique and significant qualities. If successful, we will investigate a probable proto-historic site, one of only two within the state.



*Team members Stephen Wagner and Ryan Howell investigate a prehistoric site adhering to methods established by the State of Wisconsin that also consider site preservation as a research strategy.*

**The CRM Team has developed a unique, quick-response approach to completing compliance actions for small military training projects that provides almost immediate determinations of land availability.**

The most recent innovative practice is the Team's unique quick-response approach to military training activities that enables completion of field inventories for small project areas within a single day of the initial request. With this practice, the team investigates the proposed project area upon notification and, if no historic properties are identified, provides almost immediate determinations of land availability, eliminating interruptions in the military training process. During FY 2000, the Team responded to five quick-response project requests, significantly enhancing installation mission support.

Team accomplishments also include the following:

- The Fort McCoy Archaeological Predictive Model was implemented in July 1999 with the concurrence of the Wisconsin State Historic Preservation Office. Implementation of the model reduced acreage that requires intensive archaeological survey from 48,360 to approximately 15,000. This reduction is an enormous savings of both time and funds. Although reconnaissance surveys for historic cultural remains and other prehistoric site types are still necessary, they are far less time consuming and costly. The predictive model is unique in that it considers geomorphology as well as the more traditional variables of slope, aspect, elevation and distance to water. Because geomorphology is linked to particular landforms and soil types, geomorphic units differ in exploitable resources that prehistoric peoples would have utilized. Most of the approximate 33,000 acres that the model classifies as non-sensitive consist of steeply sloped ridges, landforms unlikely to have buried cultural deposits. Model development cost \$30,000, approximately \$1 for each acre of land it has made available for use.

**Implementation of a predictive model for prehistoric archaeological sites significantly reduced the number of acres that require intensive survey resulting in substantial savings.**

**One person can intensively survey approximately 2 acres per day. It would take 16,500 days or 132,000 hours to intensively survey the acres covered by the predictive model.**

**One person can conduct reconnaissance survey over approximately 15 acres per day. It would take 2,200 days or 17,600 hours to conduct a reconnaissance survey over the acres covered by the predictive model.**

**Savings = 114,400 hours of labor (\$2,860,000).**

- Under contract to the U.S. Army Environmental Center, we recently created the Army Template ICRMP. The electronic document, constructed in Microsoft® Word and packaged onto a CD for distribution, covers the entire a range of military facilities and missions while providing adequate detail and technical guidance to support mandatory cultural resources compliance and routine program activities. The document includes Standard Operating Procedures for compliance with federal and state legislation.
- The Fort McCoy-wide ICRMP Planning Level Survey is complete. Based on information collected during its completion and recent archaeological investigations, our team has updated and expanded ICRMP historic contexts for all cultural periods and has developed GIS data layers to depict the cultural landscape through time. Currently, the Fort McCoy cultural resources inventory of historic properties includes forty-five prehistoric sites, two historic buildings, a set of stone gates, and a World War II Prisoner-of-War Camp.

### **Historic Buildings and Structures**

During the past three years, Fort McCoy architectural historians completed Section 110 inventories for USAR Training Centers in Michigan, Ohio, Indiana and Minnesota as well as Fort McCoy. The Team documented 295 buildings at 107 facilities, and historic contexts were developed for all four states. At Fort

**The CRM Team has documented all RSC buildings within four states, as well as all buildings and structures on Fort McCoy, enabling Real Property managers to make informed decisions regarding the historic properties under their control.**

McCoy, over 1300 buildings and structures were documented. The inventories confirmed that thirteen buildings that had previously been determined eligible remain so. Each inventory is summarized in a dynamic (updateable) Microsoft® Access database and the final reports are packaged onto a CD for distribution and easy access. These inventories provide a baseline study that enumerate and assess USAR resources

in accordance with Section 110 of the National Historic Preservation Act (NHPA), so that managers can make informed decisions regarding their responsibilities under the NHPA.

During the course of the statewide inventories, the team also developed a streamlined methodology for collecting and recording building and structural data. The methodology includes the use of forms for standardized data collection, digital photography for efficient photo documentation and extensive pre-inventory coordination to ensure that total access to the facility, key personnel and records would be available at the time of inventory. As an innovative approach to historic property documentation, Fort McCoy's inventory is in the format of an interactive PDF document that links mapped building locations directly to the documentation.



*Team member Andrea Den Otter documenting building located on Fort McCoy.*

In keeping with Army historic preservation goals and the Secretary's *Standards and Guidelines*, the CRM team recently assisted Fort McCoy's maintenance personnel in restoring the

installation stone entrance gates and repairing the Ordnance Magazine, both historic properties. The Works Progress Administration constructed the stone gates between 1940-1941. The Army built the Ordnance Magazine, the oldest building on Fort McCoy, in 1911. At the turn of the twentieth century, the Ordnance Magazine was a ubiquitous feature of military landscapes around the world. The Fort McCoy building is an outstanding example of pre-World War I military architectural design and is one of few remaining structures from that era.



*These stone gates, constructed in 1940-41 by the Works Progress Administration, greet visitors as they enter South Post.*

### **Archaeological Resources**

The CRM team consistently employs new technologies to identify and manage archaeological resources. In the summer of 1999, ground-penetrating radar (GPR) was utilized to determine whether landscape features were Native American burial mounds or a natural geological phenomenon. Although the features were historically interpreted as burial mounds, archaeological evidence from the surrounding area suggested a non-cultural origin. GPR allowed investigators to study sub-surface features without disturbing them. The investigation concluded that the features were indeed natural.

Intensive use of GPS since 1998 has allowed the team to integrate accurate locational data into GIS overlays. Survey and site area boundaries, locations of positive test units, site datums, and excavation unit locations are captured with GPS and incorporated into the GIS, enhancing analytical capabilities and increasing the resolution of cultural landscape features. Pertinent site and survey area attribute data, stored in a Microsoft® Access database, are actively linked to the GIS, providing the team and trainers with decision-making capabilities that consider all available data.



*Team member Ryan Howell collecting GPS data for incorporation into GIS.*

Over the past three years, 46 prehistoric and 107 historic archaeological sites, and one historic industrial site were evaluated on Fort McCoy, a significant increase from past years (see table).

Site Evaluations through Time				
	1987-1997	1998	1999	2000
Number of Evaluated Sites	44	8	134	12
Number of Sites Determined Eligible for the NR	7	3	9	6



*Historic documents and aerial photographs from 1939 identify locations where historic farmsteads are likely to be found. Field investigation of those areas reveals structural remains.*

Thirteen prehistoric and four historic sites, and the industrial historic site were determined eligible for the NR. Approximately fifteen historic sites have sufficient integrity and continuity of historic ownership to merit subsurface investigation. These sites will be evaluated in the near future.

Until 1998, data collected during survey accumulated as unconnected elements. Since then, team members have synthesized all survey data into a coherent statement on Fort McCoy and regional archaeology. Both prehistoric and historic contexts were revised to reflect the region-specific environmental and cultural features that distinguish Fort McCoy as a distinct interior region of the Upper Mississippi River watershed.

### **Native American Program**

Over the past nine years, Dell Greek, Native American Coordinator, negotiated with successive tribal administrations and Fort McCoy

**An MOU formalizing government-to-government relations between Fort McCoy and the Ho-Chunk Nation will provide a means for quick resolution of potential problems, ensuring mission continuity.**

commanders to reach agreement regarding protocol for establishing a government-to-government relationship. The negotiations culminated in a ceremony held 29 Nov 2000, when Ho-Chunk Nation tribal president, Clarence Pettibone, and Fort McCoy's Commander, Michael Staszak, signed an agreement formalizing a government-to-government relationship. At the ceremony, both leaders pledged to work cooperatively with respect and recognition for a shared future. The establishment of this proactive relationship between Fort McCoy and the Ho-Chunk Nation will enable the Installation Commander to consult directly with Tribal leaders, quickly resolving potential problems.



*Fort McCoy Commander COL Michael Staszak and Ho-Chunk Tribal President Clarence Pettibone sign an MOU at a ceremony that took place 29 Nov 2000 at the Ho-Chunk Nation Tribal Headquarters.*

Native American traditional and religious leaders, as well as Tribal Officials, regularly participate in consultations regarding tribal access to traditional cultural properties on the Installation. This consultation, formally enacted within the framework of a negotiated agreement based on DoD policy guidance, ensures that possible adverse impacts to the Installation mission are minimized while providing support for traditional religious ceremonies.

### **Curation**

Fort McCoy has negotiated a cooperative agreement with the University of Wisconsin-La Crosse (UW-L) that provides curation for Fort McCoy archaeological materials for a one-time curation cost of \$11,000 plus minimal annual service fees. In comparison, rehabilitation of an existing building to federal standards to provide in-house curation was estimated to cost approximately \$250,000. Fort McCoy archaeological artifacts were moved to the UW-L repository during December 2000 where students and the interested public can access the collection for research purposes, subject to Fort McCoy approval on a case-by-case basis.

**Team members recently reanalyzed archaeological materials collected over the past four decades. Surpassing current regulatory directives, the reanalysis provided a wealth of new information. Photographs of each diagnostic are archived on a CD.**



*Kramer projectile point collected in 1992, one of many diagnostic artifacts recently re-analyzed, photographed and prepared for permanent curation.*

Before transferring the collection to a permanent facility, diagnostic materials from older portions of the artifact collection were re-analyzed to reflect new artifact classification schemes. The artifacts were then photographed, archived on CD, and all associated records updated. The re-analysis provided consistency to the diagnostic portion of the collection and resulted in cultural affiliation changes for several earlier recorded sites.

A recent excavation of a Fort McCoy gristmill resulted in the collection of over 1200 historic artifacts. Because the gristmill was owned by Bruce McCoy, Fort McCoy's namesake, the project generated a significant amount of local interest. Artifacts recovered from the Tarr Creek Mill Site are currently on display at the Monroe County History Room.

### **Cultural Resources Awareness and Education**

Team members regularly make presentations within the local school system. Team members also give formal talks to the local historical society and participate in the annual Outdoor Skills Day when children from the Fort McCoy area have the opportunity to participate in archaeological activities.

Team members presented formal papers on Fort McCoy archaeology to the Joint Meeting of the Plains Anthropological Society (2000), the Midwest Archaeological Society Conference (1999 and 2000) and the Society for American Archaeology (2000). Publications have appeared in *Wisconsin Archeological Society Newsletter* (Fall 2000) and *Eighth International Conference on Ground Penetrating Radar* (2000). Publications that are in press will appear in *Industrial Archaeology* (2001), *Wisconsin Archeologist* (2001), and *CRM* (2001).



*Children participate in a simulated excavation while field crew member (right) provides guidance and introduction to cultural resources ethics.*

### **Community Relations**

This past year an all-volunteer crew under the direction of team member Andy Sewell conducted excavations and testing at a mid-nineteenth century grist/saw mill and associated village site. The project

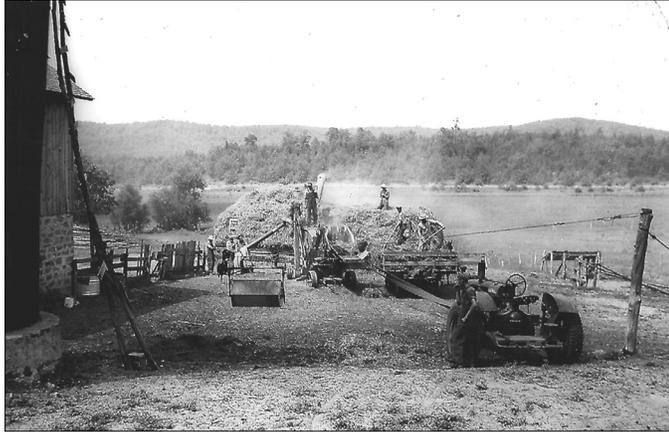


*Excavation at Tarr Creek mill site on Fort McCoy. Recovered artifacts include a brass stencil that reads "Monitor Mills Family Flour from Selected Wheat...B E. McCoy...Lafayette WIS."*

involved mapping landforms, shovel testing, unit excavations, and large-scale area excavations to uncover the mill foundation. Local and regional media interest was considerable, with national distribution of the story through the Associated Press. Excavations concluded in August 2000, after uncovering the entire mill foundation. Twenty-one volunteers from Arizona, Illinois, Minnesota and the local area donated 1364 hours of labor. At current salary costs for archaeological field crew, this amounts to nearly \$38,000 in labor. Members of the Wisconsin Conservation Corps also provided 63 hours of labor backfilling the site.

### **Environmental Enhancement**

Recent evaluations of Fort McCoy's historic farmsteads created an opportunity to share a portion of the region's history with the local public. During our documentation of historic farmstead sites, we invited former residents to visit their old "homesteads." Despite memories of forced relocation prior to the WWII buildup, they were willing to share their recollections with our staff. Their participation provided our team with invaluable research information including site layout, neighborhood composition, farm activities and historic photographs.



*Ethnographic studies with former residents provided details regarding farm activities that were indispensable to the evaluation of those properties.*

### **Mission Enhancement**

The CRM team successfully balances the protection of historic properties with support of the military mission. Our practices, including evaluation following identification, quick-response to military training projects, evaluation to the extent of DOE determination, predictive model use, incorporation of GPS with GIS, and proactive consultation with Native American tribes, are focused on a mission-first strategy. We believe that these practices assure continued support for military training, preserve the maximum available land, and limit program costs.

### **Cultural Resources Compliance**

Team members are committed to providing comprehensive compliance with applicable statutes and guidelines, in cooperation with federal, state, tribal and local governments.

- All installation projects receive expedient review in accordance with the NHPA and the National Environmental Policy Act.
- We have formalized a government-to-government relationship with the Ho-Chunk Nation in compliance with Executive Order (EO) 13175 and the NHPA.
- Fort McCoy's historic buildings and structures are maintained in accordance with the Secretary's *Standards*.
- Several Native American sacred sites have been identified under the American Indian Religious Freedom Act and are protected in accordance with EO 13007.

### **CONCLUSION**

The Fort McCoy CRM team has consistently demonstrated the effectiveness of an Installation Cultural Resources Program based on mission support. Over the past three years, the team identified areas where traditional CRM practices were inefficient and/or costly and sought out alternative measures. Team practices have evolved to address the unique military environment within the context of federal historic preservation mandates and DoD Native American policy. The CRM team has successfully integrated CRM practices into the Installation mission, providing exemplary leadership and goal accomplishments for all Army CRM programs.