



FY 2015 Secretary of Defense Environmental Awards

Fort McCoy

Natural Resources Conservation - Team

Introduction and Background

Fort McCoy is a 60,000-acre Installation Management Command Total Force Training Center consisting of a 7,538-acre impact area; 47,000 acres of forest, 3,475 acres of grassland, 4,400 acres of wetland, 71 miles of streams, 10 lakes and nearly 60,000 acres of land leased for military training. The installation's mission is to underpin readiness by serving as a training center and support site for power projection missions. It provides a wide array of Army training opportunities for combat, combat-service and combat-service support personnel. The workforce of 2,800 civilian and 700 military personnel supports training for more than 150,000 joint, interagency, intergovernmental and multinational personnel annually. Based on its strategic mobility capabilities – barge, rail, highway and air - the Strategic Deployment and Distribution Command recently revalidated Fort McCoy's geographical importance for supporting the training mission as a Power Projection Platform and a Base Support Installation. These training missions are supported through the Fort McCoy Natural Resources Branch's (NRB) sound management of the installation's high quality natural resources.

The Fort McCoy NRB is one of two branches of environmental professionals within the Environmental Division (ED), Directorate of Public Works (DPW). The six-person NRB team includes an endangered species biologist, forester, forestry technician, fisheries biologist, wildlife biologist, and NRB Chief. The NRB's mission is to foster the wise stewardship of natural and cultural resources to support and sustain a realistic military training environment, biological diversity, the integrity of sensitive or unique sites and commercial and recreational opportunities. The NRB Team coordinates continuously with the Directorate of Plans, Training, Mobilization and Security (DPTMS), as well as the National Environmental Policy Act (NEPA) Coordinator from the ED, to assure integration of the military training mission into natural resources management. As a result, over 230 NEPA actions have been reviewed at the team level during the reporting period. The NRB provides an integrated approach to ecosystem management of resources on an installation and regional scale.



JUDGING CRITERIA

-  Program Management
-  Technical Merit
-  Orientation to Mission
-  Transferability
-  Stakeholder Interaction
-  Impact/ Outcome

Accomplishments

Overall Natural Resources

Conservation Management - In collaboration with the U.S. Fish and Wildlife Service (FWS) and the Wisconsin Department of Natural Resources (WDNR), Fort McCoy completed the 2013-14 annual reviews of the Integrated Natural Resources Management Plan (INRMP). During the award period, 247 high priority projects were scheduled and 241 completed, exceeding a 97% completion rate. In addition, no net loss of training capability occurred due to implementation of INRMP projects.



Using an Army, FWS, and WDNR Inter-Agency Agreement (IAA), the Fort McCoy NRB Team established the first ever, eight-way partnership involving the Habelman Cranberry Marsh, Colorado State University, U.S. Geological Survey, Army, FWS, WDNR, volunteers, and local school groups to complete fish barrier removal and stream habitat improvement on the installation. The collaborative effort focused on Stillwell Creek, which is listed as a 303(d) impaired water due to flow problems in its highly-degraded channel. Collectively, the partners improved nearly 2,000 feet of stream habitat in 2014. Stream monitoring in 2015 showed encouraging improvements with several cold water-intolerant species present. The restoration effort shows great potential to support the goal of removing Stillwell Creek from the impaired waters list.



NRB also completed natural resource projects by leveraging the U.S. Army Corps of Engineers and the Cooperative Ecosystem Studies Unit (CESU) to the greatest extent possible. Bottom line – rapid execution of funding for high priority projects that saves both time and resources resulted in more than \$150K in savings.



The following plans were completed or updated for the reporting period; INRMP, Mound Prairie Sacred Area Management Plan (MP), Gypsy Moth MP, Emerald Ash Borer MP, Karner blue butterfly (KBB) Endangered Species MP, Gray Wolf Endangered Species MP, and Invasive Species MP.



Mission Enhancement - NRB partnered with the WDNR to successfully remove the Alderwood Lake Dam and reroute a road that was within an active range's surface danger zone. The project involved mitigation of 6.5 acres of wetland and benefitted the military mission by eliminating surface danger zone concerns, improving traffic movement, adding a low water crossing and eliminating weight limitations on an aging dam structure over the La Crosse River.



DPW Troop Projects and NRB collaborated with the DPTMS (Range Maintenance and Integrated Training Area Management - ITAM) and the Wisconsin National Guard to scarify nine miles or 75% of the north impact area firebreak. Wildfires caused by military training puts the Army at risk for loss or damage of military training assets, forest resources and private property. This collaborative effort not only saved the Army \$104K (additional cost if completed by contract) but it also helped to protect endangered



species habitat and private property while further sustaining the military mission.



NRB also collaborated with DPTMS to increase the amount of maneuver acreage through analysis of internal mission encroachments. This effort resulted in an additional 1,203 acres by reducing the wetland buffer zone from 50 to 25 meters, and additional 23,910 acres by reducing indirect live fire restrictions on certain firing areas, adding 8,911 acres by reducing smoke and obscurant buffer zones, and an additional 538 acres through the removal of airfield restrictions. As a result of this partnership, the installation reduced the environmental and safety restrictions on 34,562 acres without adding additional risk to the environment, personnel, property or training, while maintaining compliance with state and federal laws.



Approximately seven miles of brush mowing, tree removal and erosion control were completed to maintain the Fort McCoy installation boundary firebreak. Maintained boundaries will keep fire from escaping Fort McCoy protecting private property as well as delineating the installation boundary to prevent trespass.



For the fourth consecutive year, NRB coordinated a multi-agency aerial wildfire suppression training exercise at Fort McCoy. Personnel from the 147th Aviation Regiment, Wisconsin Army National Guard, Fort McCoy Fire Department (FMFD), DPTMS and the WDNR coordinated the aerial dropping of water on a prescribed burn. This collaborative training exercise was a win-win for all parties with 20 pilots receiving valuable wildfire training using Bambi Buckets®. NRB achieved habitat enhancement and fuel load reduction and the FMFD and WDNR were trained in air/ground asset coordination.



Land Use Management - Over 11,590 acres were burned during the reporting period. Prescribed burns are conducted annually to reduce the wildfire potential in and around ranges, improve wildlife habitat, control invasive species and restore native plant communities.

Prescribed burns improve savanna habitat for many rare species found on the installation, such as the endangered KBB, grasshopper sparrow and upland sandpiper. NRB supports the FMFD by planning the burns and providing a contracted burn crew to complete burns.

Since 1992, NRB has ensured high water quality by proactively monitoring and assessing surface water entering and leaving the installation. As part of this approach, NRB spearheads an installation-wide effort for improving watersheds by maintaining forested watersheds, adhering to strict erosion control, reducing storm-water runoff, and enhancing riparian uplands. As a result of Fort McCoy's integrated land management efforts, nutrient and sedimentation impacts to streams are negated and water leaving the installation is of higher quality than when it enters. NRB supported the leasing of 90 acres for water storage and cranberry operations through the agricultural out-lease program. Additionally, Fort McCoy leases contiguous lands from the Black River State Forest, and Monroe and Jackson Counties extending military training opportunities to nearly 120,000 acres. NRB facilitates the use of these leased lands for military training by coordinating with state and county entities to minimize impacts to threatened and endangered species and their habitat. In 2015, NRB completed a tree and shrub management assessment that identified 356 hazard trees for removal (with 95 being removed during the reporting period). The team also developed a



systematic pruning schedule to clear limbs away from buildings and remove hazardous branches and trees. The assessment will help to improve overall tree and shrub health and ensure Fort McCoy practices beneficial landscaping that uses native tree and shrub species.

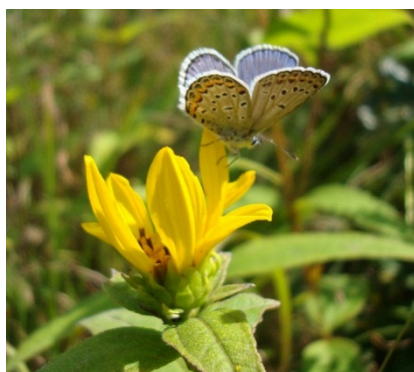
Forest Management - NRB executed Emergency Small Lot Timber Sales (ESLTS) to remove trees on three Fort McCoy mission essential projects. Through the use of ESLTS, NRB was able to avoid expensive contract costs for tree removal (approximately 265 cords of oak and pine were harvested), meet short timelines for project completion, support the military mission and earn \$4,260 in revenue. In cooperation with DPTMS and the Omaha District Corps of Engineers, NRB completed a tree removal operation in support of Fort McCoy Airfield operations. Trees growing into the flight path and obscuring landing lights were causing obstruction issues for aircraft. NRB conducted a commercial timber sale, followed by tree removal in the wetland area that could not be included in the sale, and then executed a public sale of firewood permits for leftover trees. Some removed trees were reutilized on the installation to support military engineer training. As a result, the goal of a safer runway was realized, avoiding costly contracting for timber removal, supporting military engineer training, and earning over \$25K for the Army Forestry Program.

Aerial surveys were conducted on more than 90,000 acres to identify dead or dying tree locations. Following the survey, on-the-ground tree inspections were conducted to investigate the problem and implement control measures. The survey identified 43 oak wilt centers totaling 13 acres. NRB collaborated with ITAM to establish treatment methods for diseased trees.

A forest inventory of 13,820 acres was completed during the reporting period to keep forest inventory data current. Inventory data is used to identify over mature or overcrowded forests. NRB then coordinates with ITAM to design timber sales to benefit the training mission.

NRB completed 15 timber sales for a total of 954 acres during the reporting period. Fort McCoy generates approximately \$200K annually in timber sale revenue, and the timber sales help foster natural regeneration, improve forest health and benefit the military mission. To protect water quality and unique forest habitats, riparian forests are not harvested.

Fish & Wildlife - Because Fort McCoy met its conservation goals for the federally endangered KBB, the NRB Team developed an interagency agreement to mitigate incidental take for the KBB off-installation. The agreement allows NRB to transfer funds to the FWS, which in turn partners with the WDNR to create or enhance KBB habitat on WDNR property where conservation goals have not yet been met. Off-installation mitigation significantly reduces the potential for future conflicts between military training and endangered species on Fort McCoy, helps the WDNR meet its conservation goals for the KBB, and assists in recovery of the KBB and the potential for the species to be delisted.





There are three federal and 33 state-listed species found on Fort McCoy. Five additional species that occur on Fort McCoy are undergoing a 12-month status review by the FWS to determine if they warrant listing under the Endangered Species Act. Through NRB's proactive efforts, it has collected valuable survey and telemetry data on these species that will assist the FWS in making a listing determination. NRB's proactive efforts help to prevent impacts on training and reduce potential training impacts to these species, if listed.



NRB partnered with the WDNR to complete a dam renovation project on Squaw Lake and stream improvement below the dam. As a result, stream water quality characteristics below the dam are sufficient to support cold water fisheries and NRB has initiated consultation with the WDNR and Environmental Protection Agency for the removal of Squaw Creek from the 303d Impaired Waters List.



Fort McCoy continues to partner with the WDNR in maintaining three State Natural Areas (SNAs) on the installation totaling 593 acres. These areas were established because of their uniqueness, high natural integrity and rare status. The Clear Creek and Silver Creek Natural Areas are pristine wetlands associated with floodplains along stream headwaters. These riparian communities have rare vegetation and excellent water quality. The Oak Barrens Natural Area is one of the rarest natural plant communities in Wisconsin and is of biological significance in the Midwest. NRB plays an active role in managing invasive species in these SNAs and maintaining the integrity of the native ecosystems.

NRB is supporting a three-year DoD Legacy Project, Migratory Ecology and Connectivity of At-Risk Grassland Birds. The project will utilize geo-locators on rare bird species to help determine why

grassland bird species are in decline throughout their range on Fort McCoy. These geo-locators will provide information regarding migration routes, stop-over locations, and wintering sites. The desired outcome is to reduce mortality on these declining species without being forced to place restrictions on training lands that will likely result in a degradation of military training capability.

Other Natural Resources - Recreational angling is available to Soldiers and their Families training at Fort McCoy, Department of the Army civilians, and the general public, with a total of 3,427 fishing permits sold in license year 2014. NRB conducts creel surveys of anglers on the installation, and results from the survey in 2013 estimate the economic impact of anglers on Fort McCoy to be \$1.06M to the local economy (16% higher than 2012).

Fort McCoy hunting and fishing permits are sold in collaboration with the WDNR through the Automated License Issuance System (ALIS). This partnership allows hunters and anglers the convenience of purchasing their Wisconsin and Fort McCoy permits on and off the installation and all at one time.

NRB provided six new handicap accessible piers to improve angling and watchable wildlife opportunities for Soldiers, families and general public with disabilities. Fort McCoy also held two free fishing weekends to encourage use of Fort McCoy's lakes and ponds.



Approximately 48,000 acres are accessible for hunting and other recreational activities on Fort McCoy. During the reporting period, Fort McCoy issued over 15,000 recreational, hunting, fishing, trapping and firewood cutting permits generating over \$210K in revenue. Fort McCoy also offers public access thru the iSportsman program to hike, bird watch and pick mushrooms and berries when military training is not occurring.



Fort McCoy held the 12th annual two-day gun deer hunt for disabled persons as 54 hunters participated and harvested 22 deer. Participation has increased from nine hunters in 2002 to 54 hunters in 2014. Volunteers provided assistance to disabled hunters who were unable to hunt on their own by helping in scouting, setup, retrieving deer and providing companionship. Fort McCoy holds the hunt as a public service as it benefits many veterans and helps maintain a healthy deer population.

Collaboration with our partners has culminated into a multitude of cost savings and efficiencies. NRB obtained over 31,000 rainbow trout from the FWS National Fish Hatchery during the reporting period. Fish were purchased with permit sales proceeds and were stocked in Fort McCoy lakes. In addition, approximately 250 walleye were also stocked without any additional costs. The stocking program provides diversity and another sought-after fish species for recreational angling.



Invasive Species Control and Pest Management - Integrated Pest Management (IPM) is used for achieving long-term, environmentally sound pest management through the combined use of a wide variety of physical, mechanical, biological, cultural, and chemical practices. In FY15, IPM treatments covered 3,900 acres to target 23 invasive species. In addition, 22,500 biological control agents



were collected and relocated to treat invasive knapweed and leafy spurge. Coordination between DPTMS and NRB has identified 10,000 acres of priority treatment areas. These are areas important for military training, have a high number of rare species associated with them, are pristine wetlands, or are high priority forest management areas. These sites receive treatment priority with the goal of preventing the establishment of any new invasive species while controlling those already established so they do not impact the military mission.



Conservation Education - NRB provided six presentations related to forests and wildlife to Boy Scouts and school groups from three area counties. Additionally, the team provided six “job shadows” with local area high school students highlighting the duties of a natural resources professional. Lastly, the NRB provided a round-robin natural resources training session with three school groups in which students planted over 4,000 pine trees and participated in a fish sampling project in which 200 black crappie were collected to send to the FWS for brood stock.



NRB annually hosts an information booth at the Fort McCoy Open House and Safety Day to share information with over 10,000 visitors on recreational opportunities, conservation work, and native flora and fauna present on the installation. These displays not only provide information on the natural resource management activities, but also demonstrate how management directly supports the military training mission. In addition, examples of hazardous plants, snakes and turtles are included in the displays. Children are especially attracted to these animals, asking many questions and providing an opportunity for NRB staff to tell the military natural resource management story.



Community Relations - Due to the outstanding success of the fish barrier removal and stream enhancement project, the Secretary of the WDNR, Ms. Cathy Stepp, made her first visit to Fort McCoy to meet with the Commander and tour the stream restoration project sites. The work demonstrated the Army's commitment to the conservation of Wisconsin's water resources and was recognized by the FWS and WDNR for presentation at the Driftless Area Symposium and American Fisheries Society. NRB is working with the FWS and WDNR to establish a new IAA for the removal of the failed West Silver Wetland dam on Silver Creek that will result in Army cost-savings of over \$300K.



NRB partnered with the FMFD and DPTMS to assist the WDNR Division of Forestry in completing their annual 24-hour law enforcement certification training on Fort McCoy. One hundred students were trained in forest fire investigation methodology so fire investigators know how to recognize indicators pointing to the origin of the fire.

Environmental Enhancement -Fort McCoy watershed projects are significant for local, state and federal partners' Driftless Area objectives to maintain brook trout populations and quality of life for anglers in southwestern Wisconsin. Watershed enhancements since 2011 have culminated in water quality and fishery improvements in 2015. Floodplain connectivity from barrier removals allow for reptile and fish movements, with upstream fish movement improved by 16.5 miles and documented brook trout in new waters. Water quality and fishery conditions have also improved downstream.



Economic impact from hunting, fishing, and forest harvest provide an overall cost benefit for the installation and local economy that exceeds \$2.2M annually.

CONCLUSION

The accomplishments of the NRB Team enhanced military training, improved the quality of life for soldiers and civilians, and minimized both the internal and regulatory encroachment on the mission. With over 175 years of combined natural resources experience, the dedicated NRB Team remains fully engaged in a collaborative effort with internal and external customers and stakeholders in supporting the mission while ensuring compliance with all federal and state laws and regulations. NRB has developed mature relationships with its regulators to promote sustainability of a realistic and productive operational training installation. These relationships resulted in no natural resource compliance violations and zero training days lost due to natural resource management issues. NRB conducts frequent consultations and interactions with state and federal regulators for wetland mitigation, stream re-alignments, and species of concern and takes a forward approach early and often in the process to avoid conflicts and assure projects are completed successfully. Another highlight, is leveraging project execution through the involvement of federal, state and local entities. The NRB has demonstrated that by developing partnerships, projects can be accomplished with significant cost savings and more efficient project execution. An example is in the mitigation of incidental take for the federally endangered KBB off the installation at little cost and no impact to the Fort McCoy military training mission. The Fort McCoy NRB Team stands committed in providing the very best in mission support to the Army and DOD while performing continuous process innovation and improvement that will ensure the wise stewardship of Fort McCoy's valuable resources for current and future generations of the military.

