Located on the northern edge of the Texas Hill Country, Fort Hood Military Reservation is characterized by rolling hills, shallow soils, woodlands, prairies and rocky streams. The military has used Fort Hood’s West Range, with more than 67,000 acres, as its primary training and maneuver area for two armored divisions for more than 60 years. These training activities have disturbed its ecosystems, creating accelerated soil erosion and water quality issues.

The U.S. Department of the Army and U.S. Department of Defense are keenly interested in integrating sound stewardship practices with the requirements of their training missions. The Texas Water Resources Institute and Texas AgriLife Blackland Research and Extension Center are working in close collaboration with the USDA Natural Resources Conservation Service (NRCS) and Fort Hood’s Integrated Training Area Management (ITAM) and Directorate of Public Works on the Fort Hood Range Revegetation Pilot Project. Project members continue to develop, test and implement best management practices (BMPs) and guides for restoring the installation’s training lands and to assess a series of NRCS BMPs.

Objectives

- Provide research and demonstration for maintenance of primary training areas, while improving water quality and reducing potential sedimentation by re-establishing vegetative cover
- Develop and test scientifically based BMPs for sustained use of composted dairy manure for revegetation, maintenance and restoration of rangeland processes in primary training areas
- Provide U.S. Army suggested standard operating procedures and specifications for new BMPs to help balance environmental and training needs at Fort Hood

The Fort Hood Range Revegetation Pilot Project is helping maintain quality training lands for military personnel, maintain and improve the natural resource base, protect the surrounding watersheds and improve water quality of water supply reservoirs.
Accomplishments

The project's most important accomplishment is improving training conditions for U.S. Army soldiers.

- Monitored impacts of maneuver access structures to assess erosion reductions
- Tracked the trends in sedimentation of control structures that provide land managers with an estimate of remaining capacity in retention ponds
- Purchased, transported and applied approximately 25,000 tons of composted dairy manure from the impaired North Bosque River watershed onto more than 2,000 acres of research/demonstration plots, helping meet the Bosque River watershed TMDL goals
- Improved vegetation and nutrients on research/demonstration plots, reducing bare ground, controlling accelerated erosion rates and increasing soil fertility
- Established that nutrients in dairy compost under recommended rates do not pose a threat to the water quality of protected watersheds within Fort Hood
- Received the 2006 Texas Environmental Excellence Award – Agriculture Division, presented by the Texas Commission on Environmental Quality
- Demonstrated that contour ripping and revegetation reduced stormwater discharge by approximately 50 percent compared to untreated areas

Collaborators

- Texas Water Resources Institute
- Texas AgriLife Blackland Research and Extension Center
- USDA Natural Resources Conservation Service
- Fort Hood III Corps and Garrison Command
- Fort Hood Integrated Training Area Management
- Fort Hood Directorate of Public Works

Funding Agency

- USDA Natural Resources Conservation Service