

Fort Hood Training Area Revegetation Program

Background

Fort Hood, Texas, the Army's pre-eminent armor training facility, currently supports the equivalent of two mechanized armored divisions plus a multitude of combat brigade teams from other military installations that utilize the post.

Sixty plus years of training utilizing heavy armor units has significantly degraded the land base used for training exercises. Heavy use by both track and wheel vehicles has accelerated soil erosion processes potentially impacting downstream water resources, Lake Belton, that provide drinking water sources for approximately a quarter million Central Texans.

The first line of defense in slowing soil erosion processes is the timely establishment and sustainability of quality vegetation to hold soil in place. During training exercises vegetation is significantly disturbed reducing the ground cover required to reduce water runoff and soil loss. Water quality issues in an adjacent watershed provided a unique opportunity to alleviate nutrient problems in one watershed while potentially increasing vegetation cover at Fort Hood. The partnership is evaluating the potential for composted dairy manure to increase training land sustainability through the integration of best management practices already in place at Fort Hood.

Scientists at the Blackland Center are working to alleviate the environmental impact of military training by establishing quality vegetation to hold soil in place, importing manure from dairies in the Bosque River watershed (therefore alleviating environmental issues in that watershed), and by trapping sediments before they reach surface streams and Lake Belton.

Impact: Integrated Water Quality And Erosion Control

- Increased cover by vegetation, thus reducing erosion
- Optimization of compost application rate to accelerate vegetation establishment while minimizing nutrients in runoff which could affect water quality downstream
- Integration of vegetation management in a holistic erosion control program for military training facilities
- Monitoring of different amendment application strategies to prevent nutrient losses and preserve environmental integrity
- Integration of compost utilization with current erosion control implemented by Fort Hood Integrated Training Area Management and USDA-Natural Resources Conservation Service
 - Contour Ripping
 - Sedimentation Ponds
 - Maneuver Access Structures
 - Reseeding

Partners

DOD-Integrated Training Area Management Program
USDA-NRCS
Texas Water Resources Institute
TAMU-Ecosystem Science & Management Department

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